#### FINAL DRAFT

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## 1 Excluded studies

### 1.1 Measures other than body mass index

- 4 References were excluded from this review because they did not evaluate the utility of the measure of
- 5 interest compared with body mass index (BMI), but compared with some other measure of overweight
- 6 or obesity. For a full list of excluded references, please contact the Methods Team.

### 1.2 Measures and morbidity in ethnic populations

| Study   | Source   | Reason for exclusion   |
|---|----------|--|
| Chambers JC, Eda S, Bassett P et al. (2001) C-reactive protein, insulin resistance, central obesity, and coronary heart disease risk in Indian Asians from the United Kingdom compared with European whites. <i>Circulation</i> 104(2):145–150.               | Experts  | Assesses the relationship between C-reactive protein, not anthropometric measures.   |
| Despres JP, Lemieux I, Prud'homme D (2001)<br>Treatment of obesity: need to focus on high risk<br>abdominally obese patients. <i>British Medical Journal</i><br>322(7288):716–20.   | Experts  | Not focused on ethic differences.  |
| Farooqi A, Nagra D, Edgar T, Khunti K (2000)<br>Attitudes to lifestyle risk factors for coronary heart<br>disease amongst South Asians in Leicester: a focus<br>group study. <i>Family Practice</i> 17:293–97.  | Searches | Qualitative study of knowledge and attitudes of coronary heart disease risk factors. Not assessment.                           |
| Forouhi NG, Sattar N, McKeigue PM (2001) Relation of C-reactive protein to body fat distribution and features of the metabolic syndrome in Europeans and South Asians. <i>International Journal of Obesity and Related Metabolic Disorders</i> 25(9):1327–31. | Experts  | Assesses the relationship between C-reactive protein, and anthropometric measures – not a routinely measured marker.           |
| Han TS, Feskens EJ, Lean ME, Seidell JC (1998)<br>Associations of body composition with type 2 diabetes<br>mellitus. <i>Diabetic Medicine</i> 15(2):129–35.   | Experts  | Discusses the use of waist circumference<br>and the effect of different cut-offs. Effect<br>of ethnic difference not explored. |

Han TS, Lean ME, Seidell JC (1996) Waist circumference remains useful predictor of coronary heart disease. *British Medical Journal* 312(7040):1227–28.

Han TS, McNeill G, Seidell JC, Lean ME (1997) Predicting intra-abdominal fatness from anthropometric measures: the influence of stature. *International Journal of Obesity and Related Metabolic Disorders* 21(7):587–93.

Han TS, van Leer EM, Seidell JC, Lean ME (1995) Waist circumference action levels in the identification of cardiovascular risk factors: prevalence study in a random sample. *British Medical Journal* 311(7017):1401–405.

Han TS, van Leer EM, Seidell JC, Lean ME (1996) Waist circumference as a screening tool for cardiovascular risk factors: evaluation of receiver operating characteristics (ROC). *Obesity Research* 4(6):533–47.

| Study  | Source   | Reason for exclusion  |
|--|----------|---|
| Lean ME, Han TS, Deurenberg P (1996) Predicting body composition by densitometry from simple anthropometric measurements. <i>American Journal of Clinical Nutrition</i> 63(1):4–14.  | Experts  | Discusses the use of waist circumference and the effect of different cut-offs, or equations. Effect of ethnic difference not explored.  |
| Lean ME, Han TS, Morrison CE (1995) Waist circumference as a measure for indicating need for weight management. <i>British Medical Journal</i> 311(6998):158–61.   |          |   |
| Lean ME, Han TS, Seidell JC (1998) Impairment of health and quality of life in people with large waist circumference. <i>Lancet</i> 351(9106):853–56.  |          |   |
| Malina RM, Huang YC, Brown KH (1995) Subcutaneous adipose tissue distribution in adolescent girls of four ethnic groups. <i>International Journal of Obesity and Related Metabolic Disorders</i> 19 (11):793–97.   | Searches | Investigated subcutaneous adipose tissue distribution in adolescents of four ethnic groups in the USA. However, 327 out of the 498 of the sample were Mexicans, the Asian sample was 63 and almost exclusively Filipino, and the Black sample was only 27. Generalisability of the sample to the UK population was therefore extremely limited. |
| Misra A, Arora N, Mondal S (2001) Relation between plasma leptin and anthropometric and metabolic covariates in lean and obese diabetic and hyperlipidaemic Asian Northern Indian subjects. <i>Diabetes, Nutrition and Metabolism</i> 14(1):18–26.                           | Searches | Plasma leptin and obesity – not routinely measured.   |
| Misra A, Wasir JS, Pandey RM (2005) An evaluation of candidate definitions of the metabolic syndrome in adult Asian Indians. <i>Diabetes Care</i> 28(2):398–403.   | Searches | Assesses the effect of different definitions for metabolic syndrome in Asian Indians.   |
| Misra A, Wasir JS, Vikram NK (2005) Carbohydrate diets, postprandial hyperlipidaemia, abdominal obesity and Asian Indians: a recipe for atherogenic disaster. <i>Indian Journal of Medical Research</i> 121(1):5–8.  | Searches | Narrative review.   |
| Pomerleau J, McKeigue PM, Chaturvedi N (1999)<br>Factors associated with obesity in South Asian, Afro-<br>Caribbean and European women. <i>International</i><br><i>Journal of Obesity and Related Metabolic Disorders</i><br>23(1):25–33.                                    | Searches | Assessed the association between different anthropometric measures and other social factors.  |
| Rosengren A, Hawken S, Ounpuu S et al. (2004)<br>Association of psychosocial risk factors with risk of<br>acute myocardial infarction in 11119 cases and 13648<br>controls from 52 countries (the INTERHEART study):<br>case—control study. <i>Lancet</i> 364 (9438):953–62. | Experts  | Assesses the effects of psychosocial risk factors associated with myocardial infarction across countries. Not relevant to review (INTERHEART).  |
| Sattar N, Clark P, Holmes A, Lean ME, Walker I, Greer IA (2001) Antenatal waist circumference and hypertension risk. <i>Obstetrics and Gynecology</i> 97 (2):268–71.   | Searches | Waist circumference in pregnant women.<br>No ethnic differences explored.   |
| Sattar N, Tan CE, Han TS et al. (1998) Associations of indices of adiposity with atherogenic lipoprotein subfractions. <i>International Journal of Obesity and Related Metabolic Disorders</i> 22(5):432–9.  | Searches | To assess the association of indices of adiposity with cardiovascular risk factors. No ethnic differences explored.   |
| Seidell JC, Han TS, Feskens EJ, Lean ME (1997) Narrow hips and broad waist circumferences independently contribute to increased risk of non-insulin-dependent diabetes mellitus. <i>Journal of Internal Medicine</i> 242(5):401–6.   | Searches | Describes the body shape of people with<br>non-insulin-dependent diabetes mellitus,<br>but no ethnic difference explored  |

| Study   | Source   | Reason for exclusion  |
|---|----------|---|
| Tillin T, Forouhi N, Johnston DG, McKeigue PM, Chaturvedi N, Godsland IF (2005) Metabolic syndrome and coronary heart disease in South Asians, African-Caribbeans and white Europeans: a UK population-based cross-sectional study. <i>Diabetologia</i> 48(4):649–56.                       | Experts  | Assesses the effect of different definitions for metabolic syndrome in different ethnic groups.   |
| Valsamakis G, Chetty R, Anwar A, Banerjee AK, Barnett A, Kumar S (2004) Association of simple anthropometric measures of obesity with visceral fat and the metabolic syndrome in male Caucasian and Indo-Asian subjects. <i>Diabetic Medicine</i> 21(12):1339–45.                           | Experts  | Assess the usefulness of waist circumference, but does not compare different cut-offs between White and Indo-Asian men.   |
| Vikram NK, Misra A, Dwivedi M et al. (2003)<br>Correlations of C-reactive protein levels with<br>anthropometric profile, percentage of body fat and<br>lipids in healthy adolescents and young adults in urban<br>North India. <i>Atherosclerosis</i> 168(2):305–313.                       | Experts  | Assesses the relationship between C-reactive protein levels and obesity. Not a routinely measured marker.   |
| Vikram NK, Misra A, Pandey RM, Dwivedi M, Luthra K (2004) Adiponectin, insulin resistance, and C-reactive protein in postpubertal Asian Indian adolescents. <i>Metabolism: Clinical and Experimental</i> 53(10):1336–41.  | Experts  | To compare serum adiponectin levels and obesity. Not routinely measured.  |
| Widjaja A, Stratton IM, Horn R, Holman RR, Turner R, Brabant G (1997) UKPDS 20: Plasma leptin, obesity, and plasma insulin in type 2 diabetic subjects. <i>Journal of Clinical Endocrinology and Metabolism</i> 82(2):  | Searches | Evaluates the association between leptin and BMI in different ethnic groups. Leptin is not a routinely measured plasma marker.  |
| Wong W, Stuff JE, Butte NF, Smith EO, Ellis KJ (2000) Estimation of body fat in Caucasian and African-American girls: total-body electrical conductivity methodology versus a four-component model. <i>International Journal of Obesity and Related Metabolic Disorders</i> 24(9):1200–206. | Searches | Compared two research methods of estimating body fat in White and African American girls. It did not explore ethnicity differences in associations between commonly used proxy indicators of obesity and total body fat |
| Yusuf S, Hawken S, Ounpuu S et al. (2004) Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case—control study. <i>Lancet</i> 364(9438):937–52.   | Experts  | Assesses the effects of potentially modifiable risk factors associated with myocardial infarction across countries. Not relevant to review (INTERHEART).  |

### 1.3 Diet interventions

| Study   | Source             | Reason for exclusion   |
|---|--------------------|--|
| Ahrens RA, Hower M, Best AM (2003) Effects of weight reduction interventions by community pharmacists. <i>Journal of the American Pharmacists Association</i> 43(5):583–9.  | Searches           | Not 52-week follow-up.   |
| Allison DB, Gadbury G, Schwartz LG et al. (2003) A novel soy-based meal replacement formula for weight loss among obese individuals: a randomized controlled clinical trial. <i>European Journal of Clinical Nutrition</i> 57(4):514–22.  | Searches           | Not 52-week follow-up.   |
| Arvidsson E, Viguerie N, Andersson I,<br>Verdich C, Langin D, Arner P (2003) Effects<br>of different hypocaloric diets on protein<br>secretion from adipose tissue of obese<br>women. <i>Diabetes</i> 53(8):1966–71.  | Searches           | Not 52-week follow-up.   |
| Ash S, Reeves MM, Yeo S, Morrison G, Carey D, Capra S (2003) Effect of intensive dietetic interventions on weight and glycaemic control in overweight men with type II diabetes: a randomised trial.  International Journal of Obesity and Related Metabolic Disorders 27(7):797–802. | Searches           | Aimed to assess the effectiveness of intensive, innovative methods for implementing isoenergetic dietary prescriptions on weight managemen and glycaemic control in men with type 2 diabetes. Compared liquid meal replacements, prepared meals provided, self-prepared and selected meals, but all had the same balance of 50% of energy from carbohydrate and 30% from fat. Weight change for all men only, not by different intervention group. |
| Ashley JM, St Jeor ST, Perumean-Chaney S, Schrage J, Bovee V (2001) Meal replacements in weight intervention. <i>Obesity Research</i> 9(Suppl 4):S312–20.   | Searches           | Evaluates two comparable diets, but uses MR in one group. MR not clinical interventio  |
| Bacon L, Keim NL, Van Loan MD et al. (2002) Evaluating a 'non-diet' wellness intervention for improvement of metabolic fitness, psychological well-being and eating and activity behaviors. <i>International Journal of Obesity and Related Metabolic Disorders</i> 26(6):854–65.     | Searches           | Compared behavioural therapy (BT) diet and physical activity (PA) with BT only. Added to PA review.  |
| Barnard ND, Scialli AR, Turner-McGrievy G, Lanou AJ (2004) Acceptability of a low-fat vegan diet compares favorably to a step II diet in a randomized, controlled trial.  Journal of Cardiopulmonary Rehabilitation 24(4):229–35.   | PH cross-reference | Not 52-week follow-up.   |
| Bouche C, Rizkalla SW, Luo J et al. (2002) Five-week, low-glycemic index diet decreases total fat mass and improves plasma lipid profile in moderately overweight nondiabetic men. <i>Diabetes Care</i> 25(5):822–8.  | Searches           | Not 52-week follow-up.   |

| Study  | Source   | Reason for exclusion   |
|--|----------|--|
| Bray GA, Lovejoy JC, Most-Windhauser M et al. (2002) A 9-mo randomized clinical trial comparing fat-substituted and fat-reduced diets in healthy obese men: the Ole Study. <i>American Journal of Clinical</i>   | Searches | Not 52-week follow-up.   |
| Nutrition 76(5):928–34. Brehm BJ, Seeley RJ, Daniels SR, D'Alessio DA (2003) A randomized trial comparing a very low carbohydrate diet and a calorierestricted low fat diet on body weight and cardiovascular risk factors in healthy women. Journal of Clinical Endocrinology and Metabolism 88(4):1617–23. | Searches | Not 52-week follow-up.   |
| Clifton PM, Noakes M, Keogh JB (2004)<br>Very low-fat (12%) and high<br>monounsaturated fat (35%) diets do not<br>differentially affect abdominal fat loss in<br>overweight, nondiabetic women. <i>Journal of</i><br><i>Nutrition</i> 134(7):1741–5.   | Searches | Not 52-week follow-up.   |
| Conceica de Oliveira M, Sichieri R,<br>Sanchez MA (2003) Weight loss associated<br>with a daily intake of three apples or three<br>pears among overweight women. <i>Nutrition</i><br>19(3):253–6.  | Searches | Not 52-week follow-up.   |
| Cox KL, Burke V, Morton AR, Beilin LJ, Puddey IB (2003) The independent and combined effects of 16 weeks of vigorous exercise and energy restriction on body mass and composition in free-living overweight men – a randomized controlled trial.  Metabolism: Clinical and Experimental 52(1):107–115.       | Searches | Not 52-week follow-up.   |
| Deibert P, Konig D, Schmidt-Trucksaess A et al. (2004) Weight loss without losing muscle mass in pre-obese and obese subjects induced by a high-soy-protein diet.  International Journal of Obesity and Related Metabolic Disorders 28(10):1349–52.  | Searches | Not 52-week follow-up.   |
| Ditschuneit HH, Flechtner-Mors M (2001) Value of structured meals for weight management: risk factors and long-term weight maintenance. <i>Obesity Research</i> 9(Suppl 4):S284–9.   | Searches | Not 52 week intervention. Only randomised for 3 months, then single arm trial. |
| Djuric Z, Lababidi S, Heilbrun LK, Depper JB, Poore KM, Uhley VE (2002) Effect of low-fat and/or low-energy diets on anthropometric measures in participants of the women's diet study. <i>Journal of the American College of Nutrition</i> 21(1):38–46.   | Searches | Not 52-week follow-up  |
| Dzator JA, Hendrie D, Burke V et al. (2004) A randomized trial of interactive group sessions achieved greater improvements in nutrition and physical activity at a tiny increase in cost. <i>Journal of Clinical Epidemiology</i> 57(6):610–19.  | Searches | Change in weight (kg) not reported.  |

| Study  | Source  | Reason for exclusion   |
|--|---|--|
| Ebbeling CB, Leidig MM, Sinclair KB, Hangen JP, Ludwig DS (2003) A reduced-glycemic load diet in the treatment of adolescent obesity. <i>Archives of Pediatrics and Adolescent Medicine</i> 157(8):773–9.  | Searches  | Not adults – adolescents aged 13 to 21 years.  |
| Fagerberg B, Wiklund O, Agewall S, Camejo G, Wikstrand RJ (1996) Multifactorial treatment of hypertensive men at high cardiovascular risk and low-density lipoprotein cholesterol affinity to human arterial proteoglycans. <i>European Journal of Clinical Investigation</i> 26(11):960–65.           | Agency for<br>Healthcare<br>Research and<br>Quality<br>(AHRQ) | Intervention was multifaceted – included diet, use of lipid-lowering agents, smoking cessation programme. Excluded as smoking cessation could affect weight change (NHS Health Technology Assessment Project [HTA] exclusion). |
| Fernandez de la Puebla RA, Fuentes F,<br>Perez-Martinez P et al. (2003) A reduction<br>in dietary saturated fat decreases body fat<br>content in overweight, hypercholesterolemic<br>males. <i>Nutrition Metabolism and</i><br><i>Cardiovascular Diseases</i> 13(5):273–7.                             | Searches  | Not 52-week follow-up.   |
| Gerhard GT, Ahmann A, Meeuws K, McMurry MP, Duell PB, Connor WE (2004) Effects of a low-fat diet compared with those of a high-monounsaturated fat diet on body weight, plasma lipids and lipoproteins, and glycemic control in type 2 diabetes.  American Journal of Clinical Nutrition 80(3):668–73. | Searches  | Not 52-week follow-up.   |
| Hays NP, Starling RD, Liu X et al. (2004) Effects of an ad libitum low-fat, high-carbohydrate diet on body weight, body composition, and fat distribution in older men and women: a randomized controlled trial. <i>Archives of Internal Medicine</i> 164(2):210–7.                                    | Searches  | Not 52-week follow-up.   |
| Jen KL, Djuric Z, DiLaura NM et al. (2004) Improvement of metabolism among obese breast cancer survivors in differing weight loss regimens. <i>Obesity Research</i> 12(2):306–312.   | Searches  | Compared Weight Watchers (diet and meetings), individual counselling (no details of dietary or other content), Weight Watchers and counselling, and control. Not diet alone.   |
| Joseph LJ, Trappe TA, Farrell PA et al. (2001) Short-term moderate weight loss and resistance training do not affect insulinstimulated glucose disposal in postmenopausal women. <i>Diabetes Care</i> 24 (11):1863–9.  | Searches  | Not 52-week follow-up.   |
| Kirk SF, Harvey EL, McConnon A et al. (2003) A randomised trial of an Internet weight control resource: the UK Weight Control Trial [ISRCTN58621669].[BMC Health Services Research 3(1):19.  | Searches  | Study protocol – not results.  |
| Knowler WC, Barrett-Connor E, Fowler SE (2002) Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. <i>New England Journal of Medicine</i> 346(6):393–403.  | Searches and<br>Guidance<br>Development<br>Group (GDG)        | DPP study excluded as aim not weight loss, and no direct comparison of lifestyle, but lifestyle plus placebo.  |

| Study   | Source     | Reason for exclusion   |
|---|------------|--|
| Krotkiewski M (2001) Value of VLCD supplementation with medium chain triglycerides. <i>International Journal of Obesity and Related Metabolic Disorders</i>   | Searches   | Not 52-week follow-up.   |
| 25(9):1393–1400.<br>Landers P, Wolfe MM, Glore S, Guild R,<br>Phillips L (2002) Effect of weight loss plans<br>on body composition and diet duration.<br><i>Journal of the Oklahoma State Medical</i><br><i>Association</i> 95(5):329–31.   | Searches   | Not 52-week follow-up.   |
| Landry N, Bergeron N, Archer R et al. (2003) Whole-body fat oxidation rate and plasma triacylglycerol concentrations in men consuming an ad libitum high-carbohydrate or low-carbohydrate diet. <i>American Journal of Clinical Nutrition</i> 77(3):580–6.  | Searches   | Not 52-week follow-up.   |
| Lantz H, Peltonen M, Agren L, Torgerson JS (2003) Intermittent versus on-demand use of a very low calorie diet: a randomized 2-year clinical trial. <i>Journal of Internal Medicine</i> 253(4):463–71.  | Searches   | Compared intermittent and regular use of short-term diets, not type of diet. |
| Lantz H, Peltonen M, Agren L, Torgerson JS (2003) A dietary and behavioural programme for the treatment of obesity. A 4-year clinical trial and a long-term posttreatment follow-up. <i>Journal of Internal Medicine</i> 254(3):272–9.  | Searches   | See included trial: Torgerson 1997   |
| Lean ME, Han TS, Prvan T, Richmond PR, Avenell A (1997) Weight loss with high and low carbohydrate 1200 kcal diets in free living women. <i>European Journal of Clinical Nutrition</i> 51(4):243–8.   | CR Pirozzo | Not 12-month outcomes.   |
| Leslie WS, Lean ME, Baillie HM, Hankey CR (2002) Weight management: a comparison of existing dietary approaches in a work-site setting. <i>International Journal of Obesity and Related Metabolic Disorders</i> 26(11):1469–75.   | Searches   | Not 52-week follow-up.   |
| Lovejoy JC, Bray GA, Lefevre M et al. (2003) Consumption of a controlled low-fat diet containing olestra for 9 months improves health risk factors in conjunction with weight loss in obese men: The Ole Study. <i>International Journal of Obesity</i> 27(10):1242–9.  | Searches   | Not 52-week follow-up.   |
| Meckling KA, O'Sullivan C, Saari D (2004) Comparison of a low-fat diet to a low-carbohydrate diet on weight loss, body composition, and risk factors for diabetes and cardiovascular disease in free-living, overweight men and women. <i>Journal of Clinical Endocrinology and Metabolism</i> 89(6):2717–23. | Searches   | Not 52-week follow-up.   |

| Study  | Source                          | Reason for exclusion   |
|--|---------------------------------|------------------------|
| Miyashita Y, Koide N, Ohtsuka M et al. (2004) Beneficial effect of low carbohydrate in low calorie diets on visceral fat reduction in type 2 diabetic patients with obesity.  Diabetes Research and Clinical Practice  | Submitted evidence and searches | Not 52-week follow-up. |
| 65:235–41. Nieman DC, Brock DW, Butterworth D, Utter AC, Nieman CC (2002) Reducing diet and/or exercise training decreases the lipid and lipoprotein risk factors of moderately obese women. <i>Journal of the American</i> College of Nutrition 21(4):344–50. | Searches                        | Not 52-week follow-up. |
| Noakes M, Foster PR, Keogh JB, Clifton PM (2004) Meal replacements are as effective as structured weight-loss diets for treating obesity in adults with features of metabolic syndrome. <i>Journal of Nutrition</i> 134(8):1894–9.                             | Searches                        | Not 52-week follow-up. |
| Parker B, Noakes M, Luscombe N, Clifton P (2002) Effect of a high-protein, high-monounsaturated fat weight loss diet on glycemic control and lipid levels in type 2 diabetes. <i>Diabetes Care</i> 25(3):425–30.   | Searches                        | Not 52-week follow-up. |
| Pelkman CL, Fishell VK, Maddox DH et al. (2004) Effects of moderate-fat (from monounsaturated fat) and low-fat weight-loss diets on the serum lipid profile in overweight and obese men and women.  American Journal of Clinical Nutrition 79(2):204–212.      | Searches                        | Not 52-week follow-up. |
| Piers LS, Walker KZ, Stoney RM, Soares MJ, O'Dea K (2003) Substitution of saturated with monounsaturated fat in a 4-week diet affects body weight and composition of overweight and obese men. British Journal of Nutrition 90(3):717–27.                      | Searches                        | Not 52-week follow-up. |
| Poston WSC, Haddock CK, Pinkston MM, Pace P, Karakoc ND, Reeves RS, Foreyt JP. (2005) Weight loss with meal replacement and meal replacement plus snacks: a randomized trial. International Journal of Obesity 29 (9):1107-14.                                 | Stakeholder                     | Not 52-week follow-up. |
| Poppitt SD, Keogh GF, Prentice AM et al. (2002) Long-term effects of ad libitum low-fat, high-carbohydrate diets on body weight and serum lipids in overweight subjects with metabolic syndrome. <i>American Journal of Clinical Nutrition</i> 75(1):11–20.    | Searches                        | Not 52-week follow-up. |
| Ricci TA, Heymsfield SB, Pierson RN Jr, Stahl T, Chowdhury HA, Shapses SA (2001) Moderate energy restriction increases bone resorption in obese postmenopausal women.<br>American Journal of Clinical Nutrition 73(2):347–52.                                  | Searches                        | Not 52-week follow-up. |

| Study  | Source   | Reason for exclusion                       |
|--|----------|--|
| Rolland-Cachera MF, Thibault H, Souberbielle JC et al. (2004) Massive obesity in adolescents: dietary interventions and behaviours associated with weight regain at 2 y follow-up. <i>International Journal of Obesity and Related Metabolic</i>   | Searches | Not adults – children aged 11 to 16 years  |
| Disorders 28(4):514–9. Ross R, Janssen I, Dawson J et al. (2004) Exercise-induced reduction in obesity and insulin resistance in women: a randomized controlled trial. Obesity Research 12(5):789–98.  | Searches | Not 52-week follow-up.                     |
| Roy HJ, Most MM, Sparti A et al. (2002)<br>Effect on body weight of replacing dietary<br>fat with olestra for two or ten weeks in<br>healthy men and women. <i>Journal of the</i><br><i>American College of Nutrition</i> 21(3):259–<br>67.  | Searches | Not 52-week follow-up.                     |
| Saris WHM (2001) Very low calorie diets and sustained weight loss. <i>Obesity Research</i> 9(4):   | Searches | Narrative review.                          |
| Sondike SB, Copperman N, Jacobson MS (2003) Effects of a low-carbohydrate diet on weight loss and cardiovascular risk factor in overweight adolescents. <i>Journal of Pediatrics</i> 142(3):253–8.   | Searches | Not adults – children aged 12 to 18 years. |
| St Onge MP, Bourque C, Jones PJ, Ross R, Parsons WE (2003) Medium- versus long-chain triglycerides for 27 days increases fat oxidation and energy expenditure without resulting in changes in body composition in overweight women. <i>International Journal of Obesity and Related Metabolic Disorders</i> 27(1):95–102.      | Searches | Not 52-week follow-up.                     |
| St Onge MP, Jones PJ (2003) Greater rise in fat oxidation with medium-chain triglyceride consumption relative to long-chain triglyceride is associated with lower initial body weight and greater loss of subcutaneous adipose tissue. <i>International Journal of Obesity and Related Metabolic Disorders</i> 27(12):1565–71. | Searches | Not 52-week follow-up.                     |
| St Onge MP, Ross R, Parsons WD, Jones PJ (2003) Medium-chain triglycerides increase energy expenditure and decrease adiposity in overweight men. <i>Obesity Research</i> 11(3):395–402.  | Searches | Not 52 week follow-up                      |
| Stamets K, Taylor DS, Kunselman A, Demers LM, Pelkman CL, Legro RS (2004) A randomized trial of the effects of two types of short-term hypocaloric diets on weight loss in women with polycystic ovary syndrome. <i>Fertility and Sterility</i> 81(3):630–37.  | Searches | Not 52-week follow-up.                     |

| Study   | Source                | Reason for exclusion  |
|---|-----------------------|---|
| Taylor FC, Irons LJ, Finn P, Summerbell CD (2003) Controlled clinical trial of two weight reducing diets in a NHS hospital dietetic outpatient clinic – a pilot study [erratum appears in <i>Journal of Human Nutrition and Dietetics</i> (2003) 16(3):215]. <i>Journal of Human Nutrition and Dietetics</i> 10(2):255-27 | Searches              | Not 52-week follow-up.  |
| 16(2):85–87.<br>Tsai AG, Wadden TA (2005) Systematic<br>review: an evaluation of major commercial<br>weight loss programs in the United States.<br><i>Annals of Internal Medicine</i> 142(1):56–66.   | Searches              | Systematic review of commercial weight loss programmes available and evaluated only in the USA. |
| Volek JS, Sharman MJ, Love DM (200)<br>Body composition and hormonal responses<br>to a carbohydrate-restricted diet.<br>Metabolism: Clinical and Experimental   | Searches              | Not overweight participants – normal weight men only (not defined).                             |
| 51(7):864–70. Volek JS, Sharman MJ, Gomez AL et al. (2004) Comparison of a very low-carbohydrate and low-fat diet on fasting lipids, LDL subclasses, insulin resistance, and postprandial lipemic responses in overweight women. <i>Journal of the American College of Nutrition</i> 23(2):177–84.                        | Submitted<br>evidence | Not 52-week follow-up.  |
| West JA, de Looy AE (2001) Weight loss in overweight subjects following low-sucrose or sucrose-containing diets. <i>International Journal of Obesity and Related Metabolic Disorders</i> 25(8):1122–8.  | Searches              | Not 52 week follow-up.  |
| Wien MA, Sabate JM, Ikle DN, Cole SE, Kandeel FR. Almonds vs complex carbohydrates in a weight reduction program [erratum appears in <i>International Journal of Obesity and Related Metabolic Disorders</i> (2004) 28(3):459]. <i>International Journal of Obesity and Related Metabolic Disorders</i> 27(11):1365–72.   | Searches              | Not 52 week follow-up   |
| Womble LG, Wadden TA, McGuckin BG, Sargent SL, Rothman RA, Krauthamer-Ewing ES (2004) A randomized controlled trial of a commercial internet weight loss program. <i>Obesity Research</i> 12(6):1011–8.   | Searches              | Compared low-energy diets but intervention arm had Internet support – not clinical setting.     |
| Yancy WS Jr, Olsen MK, Guyton JR, Bakst RP, Westman EC (2004) A low-carbohydrate, ketogenic diet versus a low-fat diet to treat obesity and hyperlipidemia: a randomized, controlled trial. <i>Annals of Internal Medicine</i> 140(10):769–77.  | Searches              | Not 52-week follow-up.  |
| Yip I, Go VL, DeShields S et al. (2001)<br>Liquid meal replacements and glycemic<br>control in obese type 2 diabetes patients.<br><i>Obesity Research</i> 9(Suppl 4):S341–7.  | Searches              | Not 52-week follow-up.  |

## 1.4 Behaviour therapy (with or without diet)

| Study   | Source   | Reason for exclusion   |
|---|----------|--|
| Bacon L, Keim NL, Van Loan MD et al. (2002)<br>Evaluating a 'non-diet' wellness intervention for<br>improvement of metabolic fitness, psychological well-<br>being and eating and activity behaviors. <i>International</i><br><i>Journal of Obesity and Related Metabolic Disorders</i> 26<br>(6):854–65. | Searches | Compared BT, diet and PA with BT only. In PA review.   |
| Burke V, Giangiulio N, Gillam HF, Beilin LJ,<br>Houghton S (2003) Physical activity and nutrition<br>programs for couples: a randomized controlled trial.<br><i>Journal of Clinical Epidemiology</i> 5(5):421–32.   | Searches | Weight (in kg) not reported.   |
| Dalle GR, Todesco T, Banderali A, Guardini S (2004)<br>Cognitive-behavioural guided self-help for obesity: a<br>preliminary research. <i>Eating and Weight Disorders</i><br>9(1):69–76.   | Searches | Not 52-week follow-up.   |
| Dallow CB, Anderson J (2003) Using self-efficacy and a transtheoretical model to develop a physical activity intervention for obese women. <i>American Journal of Health Promotion</i> 17(6):373–81.  | Searches | Not 52-week follow-up.   |
| Dzator JA, Hendrie D, Burke V et al. (2004) A randomized trial of interactive group sessions achieved greater improvements in nutrition and physical activity at a tiny increase in cost. <i>Journal of Clinical Epidemiology</i> 57(6):610–19.   | Searches | Weight (in kg) not reported.   |
| Fagerberg B, Wiklund O, Agewall S, Camejo G, Wikstrand RJ (1996) Multifactorial treatment of hypertensive men at high cardiovascular risk and low-density lipoprotein cholesterol affinity to human arterial proteoglycans. <i>European Journal of Clinical Investigation</i> 26(11):960–65.              | AHRQ     | Intervention included smoking cessation, which may have had an effect on weight change.                      |
| Gorin AA, Le Grange D, Stone AA (2003)<br>Effectiveness of spouse involvement in cognitive<br>behavioral therapy for binge eating disorder.<br><i>International Journal of Eating Disorders</i> 33(4):421–<br>33.   | Searches | Participants were women with binge eating disorder.  |
| Harvey-Berino J, Pintauro SJ, Gold EC (2002) The feasibility of using Internet support for the maintenance of weight loss. <i>Behavior Modification</i> 26(1):103–116.  | Searches | Compared diet, BT and PA with different levels of support for maintenance – in non-clinical settings review. |
| Harvey-Berino J, Pintauro S, Buzzell P, Gold EC (2004) Effect of internet support on the long-term maintenance of weight loss. <i>Obesity Research</i> 12 (2):320–29.   | Searches | Compared diet, BT and PA with different levels of support for maintenance – in non-clinical settings review. |
| Heshka S, Anderson JW, Atkinson RL et al. (2004) Weight loss with self-help compared with a structured commercial program: a randomized trial. <i>Journal of the American Medical Association</i> 289(14):1792–8.   | Searches | Compared self-help with a commercial programme. Not clinical setting.  |
| Hoeger KM, Kochman L, Wixom N, Craig K, Miller RK, Guzick DS (2004) A randomized, 48-week, placebo-controlled trial of intensive lifestyle modification and/or metformin therapy in overweight women with polycystic ovary syndrome: a pilot study. <i>Fertility and Sterility</i> 82(2):421–9.           | Searches | Compared diet, PA and possible BT with metformin or placebo, and placebo only.                               |
| Jeffery RW, Wing RR, Sherwood NE, Tate DF (2003) Physical activity and weight loss: does prescribing higher physical activity goals improve outcome? <i>American Journal of Clinical Nutrition</i> 78(4):684–9.   | Searches | Compared different levels of PA and BT.  |

| Study  | Source             | Reason for exclusion  |
|--|--------------------|---|
| Jeffery RW, Sherwood NE, Brelje K et al. (2003) Mail and phone interventions for weight loss in a managed-care setting: Weigh-To-Be one-year outcomes.  International Journal of Obesity and Related Metabolic   | Searches           | Compared mail or telephone delivery of intervention – non-clinical setting.                   |
| Disorders 27(12):1584–92.  Jenkins I, Djuric Z, Darga L, DiLaura NM, Magnan M, Hryniuk WM (2003) Relationship of psychiatric diagnosis and weight loss maintenance in obese breast   | Searches           | Individualised counselling – not BT.  |
| cancer survivors. <i>Obesity Research</i> 11(11):1369–75. Kajaste S, Brander PE, Telakivi T, Partinen M, Mustajoki P (2004) A cognitive-behavioral weight reduction program in the treatment of obstructive sleep apnea syndrome with or without initial nasal CPAP: a                                     | Searches           | Comparison of nasal continuous positive airway pressure (CPAP), not weight loss intervention. |
| randomized study. <i>Sleep Medicine</i> 5(2):125–31. Keele-Smith R, Leon T (2003) Evaluation of individually tailored interventions on exercise adherence. <i>Western Journal of Nursing Research</i>  | Searches           | Not 52-week follow-up.  |
| 25(6):623–40, 2003.<br>Kenardy J, Mensch M, Bowen K, Green B, Walton J (2002) Group therapy for binge eating in Type 2 diabetes: a randomized trial. <i>Diabetic Medicine</i> 19(3):234–9.   | Rubak              | Not 52-week follow-up.<br>Participants with binge eating<br>disorder.                         |
| Kerr D, Miles P (2004) The 12 month findings of using a commercial very low calorie diet (VLCD) weight-loss programme for patients with Type 2 diabetes who have unsuccessfully reduced weight despite following all first line interventions.   | Submitted evidence | No published papers (checked April 2005).   |
| Kirk SF, Harvey EL, McConnon A et al. (2003) A randomised trial of an Internet weight control resource: the UK Weight Control Trial [ISRCTN58621669].<br>BMC Health Services Research 3(1):19.   | Searches           | Trial protocol, not results.  |
| Knowler WC, Barrett-Connor E, Fowler SE et al. (2002) Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. <i>New England Journal of Medicine</i> 346(6):393–403.   | AHRQ,<br>ICSI      | Compared diet and BT and PA with metformin or placebo   |
| Krummel DA, Semmens E, Boury J, Gordon PM, Larkin KT (2004) Stages of change for weight management in postpartum women. <i>Journal of the American Dietetic Association</i> 104(7):1102–108.   | Searches           | Not results of the randomised controlled trial (RCT):   |
| Lindstrom J, Louheranta A, Mannelin M et al. (2003)<br>The Finnish Diabetes Prevention Study (DPS): Lifestyle<br>intervention and 3-year results on diet and physical  | Searches           | In combined review – Finnish Diabetes Prevention Study.                                       |
| activity. <i>Diabetes Care</i> 26(12):3230–6.<br>Littrell KH, Hilligoss NM, Kirshner CD, Petty RG,<br>Johnson CG (2003) The effects of an educational<br>intervention on antipsychotic-induced weight gain.  | Searches           | Not BMI $\geq$ 28 kg/m <sup>2</sup> .   |
| Journal of Nursing Scholarship 35(3):237–41.  Mayer-Davis EJ, D'Antonio AM, Smith SM et al. (2004) Pounds off with empowerment (POWER): a clinical trial of weight management strategies for black and white adults with diabetes who live in medically underserved rural communities. American Journal of | Searches           | Compared diet, PA and BT using two forms of delivery with control (information).              |
| Public Health 94(10):1736–42.  Moore H, Summerbell CD, Greenwood DC et al. (2003) Improving management of obesity in primary care: cluster randomised trial. British Medical Journal 327(7423):1085.   | Searches           | Intervention aimed at healthcare professionals.   |

| Study   | Source                     | Reason for exclusion   |
|---|----------------------------|--|
| O'Toole ML, Sawicki MA, Artal R (2003) Structured diet and physical activity prevent postpartum weight retention. <i>Journal of Women's Health</i> 12(10):991–8.  | Searches                   | Compares structured individualised programme on diet and PA with group sessions, and self-directed weight loss (information with no additional contact). |
| Oldroyd JC, Unwin NC, White M, Imrie K, Mathers JC, Alberti KG (2001) Randomised controlled trial evaluating the effectiveness of behavioural interventions to modify cardiovascular risk factors in men and women with impaired glucose tolerance: outcomes at 6 months. <i>Diabetes Research and Clinical Practice</i> 52(1):29–43. | Shaw CR                    | Not 52-week follow-up.   |
| Painot D, Jotterand S, Kammer A, Fossati M, Golay A (2001) Simultaneous nutritional cognitive–behavioural therapy in obese patients. <i>Patient Education and Counseling</i> 42(1):47–52.   | Shaw CR                    | Not 52-week follow-up.   |
| Park TL, Perri MG, Rodrigue JR (2003) Minimal intervention programs for weight loss in heart transplant candidates: a preliminary examination. <i>Progress in Transplantation</i> 13 (4):284–8.   | Searches                   | Not 52-week follow-up.   |
| Raynor HA, Jeffery RW, Tate DF, Wing RR (2004) Relationship between changes in food group variety, dietary intake, and weight during obesity treatment. <i>International Journal of Obesity and Related Metabolic Disorders</i> 28(6):813–20.   | Searches                   | Compared BT and diet with different levels PA. In PA review.   |
| Read A, Ramwell H, Storer H, Webber J (2004) A primary care intervention programme for obesity and coronary heart disease risk factor reduction. <i>British Journal of General Practice</i> 54(501):272–8.  | PH <i>cros</i> s-reference | Not RCT.   |
| Renjilian DA, Perri MG, Nezu AM, McKelvey WF, Shermer RL, Anton SD (2001) Individual versus group therapy for obesity: effects of matching participants to their treatment preferences. <i>Journal of Consulting and Clinical Psychology</i> 69(4):717–21.  | Searches                   | Not 52-week follow-up.   |
| Sartorio A, Lafortuna CL, Marinone PG, Tavani A, La Vecchia C, Bosetti C (2003) Short-term effects of two integrated, non-pharmacological body weight reduction programs on coronary heart disease risk factors in young obese patients. <i>Diabetes, Nutrition and Metabolism</i> 16(4):262–5.                                       | Searches                   | Not 52-week follow-up.   |
| Simkin-Silverman LR, Wing RR, Boraz MA, Kuller LH (2003) Lifestyle intervention can prevent weight gain during menopause: results from a 5-year randomized clinical trial. <i>Annals of Behavioral Medicine</i> 26(3):212–20.   | Searches                   | Earlier publications from the same trial excluded from the HTA. Not BMI ≥28 kg/m <sup>2</sup> .  |
| Tate DF, Jackvony EH, Wing RR (2003) Effects of Internet behavioral counseling on weight loss in adults at risk for type 2 diabetes: a randomized trial. <i>Journal of the American Medical Association</i> 289(14):1833–6.   | Searches                   | Compared diet, BT and PA with different levels of support – basic Internet vs. e-counselling. Non-clinical setting                                       |
| Womble LG, Wadden TA, McGuckin BG, Sargent SL, Rothman RA, Krauthamer-Ewing ES (2004) A randomized controlled trial of a commercial internet weight loss program. <i>Obesity Research</i> 12(6):1011–18.  | Searches                   | Compared diet, BT and PA with different levels of support – manual vs. Internet site. Non-clinical setting.  |

| Study   | Source   | Reason for exclusion  |
|---|----------|---|
| Yeh MC, Rodriguez E, Nawaz H, Gonzalez M, Nakamoto D, Katz DL (2003) Technical skills for weight loss: 2-y follow-up results of a randomized trial. <i>International Journal of Obesity and Related Metabolic Disorders</i> 27(12):1500–506.                                | Searches | Compared skills-based BT therapy with BT counselling – no details of techniques used in counselling – excluded. |
| Yu CM, Li LS, Ho HH, Lau CP (2003) Long-term changes in exercise capacity, quality of life, body anthropometry, and lipid profiles after a cardiac rehabilitation program in obese patients with coronary heart disease. <i>American Journal of Cardiology</i> 91(3):321–5. | Searches | Not BMI ≥28 kg/m <sup>2</sup> .   |

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3

# 1.5 Physical activity (alone or in combination with diet or behaviour therapy)

| Study  | Source                           | Reason for exclusion  |
|--|----------------------------------|---|
| Aggel-Leijssen DP, Saris WH, Hul GB, Van Baak MA (2001) Short-term effects of weight loss with or without low-intensity exercise training on fat metabolism in obese men. <i>American Journal of Clinical Nutrition</i> 73(3):523–31.                                | Shaw CR                          | Not 52-week follow-<br>up.  |
| Aggel-Leijssen DP, Saris WH, Homan M, Van Baak MA (2001) The effect of exercise training on beta-adrenergic stimulation of fat metabolism in obese men. <i>International Journal of Obesity and Related Metabolic Disorders</i> 25(1):16–23.                         | Shaw CR                          | Not 52 week follow-<br>up.  |
| Aggel-Leijssen DP, Saris WH, Wagenmakers AJ, Senden JM, Van Baak MA (2002) Effect of exercise training at different intensities on fat metabolism of obese men. <i>Journal of Applied Physiology</i> 92(3):1300–309.   | Searches                         | Not 52-week follow-<br>up.  |
| Allen JK (1996) Coronary risk factor modification in women after coronary artery bypass surgery. <i>Nursing Research</i> 45(5):260–65.   | AHRQ                             | Intervention included<br>smoking cessation,<br>which may have had<br>an effect on weight<br>change. |
| Andersen RE, Franckowiak SC, Bartlett SJ, Fontaine KR (2002) Physiologic changes after diet combined with structured aerobic exercise or lifestyle activity. <i>Metabolism: Clinical and Experimental</i> 51(12):1528–33.  | Searches<br>(PH cross-reference) | Not 52-week follow-<br>up.  |
| Balkestein EJ, Aggel-Leijssen DP, Van Baak MA, Struijker-Boudier HA, Van Bortel LM (1999) The effect of weight loss with or without exercise training on large artery compliance in healthy obese men. <i>Journal of Hypertension</i> 17(12 Pt 2):1831–5.            | Shaw CR                          | Not 52-week follow-up.  |
| Baughman K, Logue E, Sutton K, Capers C, Jarjoura D, Smucker W (2003) Biopsychosocial characteristics of overweight and obese primary care patients: do psychosocial and behavior factors mediate sociodemographic effects? <i>Preventive Medicine</i> 37(2):129–37. | Searches                         | Not RCT. Checked for published RCT results.   |

| Study  | Source   | Reason for exclusion  |
|--|----------|---|
| Brach JS, VanSwearingen JM, FitzGerald SJ, Storti KL, Kriska AM (2004) The relationship among physical activity, obesity, and physical function in community-dwelling older women. <i>Preventive Medicine</i> 39(1):74–80.   | Searches | Reported 14-year follow-up from RCT Results not reported by group, but for whole cohort only. |
| Brankston GN, Mitchell BF, Ryan EA, Okun NB (2004)<br>Resistance exercise decreases the need for insulin in overweight<br>women with gestational diabetes mellitus. <i>American Journal of Obstetrics and Gynecology</i> 190(1):188–93.  | Searches | Not 52-week follow-up.  |
| Burke V, Giangiulio N, Gillam HF, Beilin LJ, Houghton S (2003) Physical activity and nutrition programs for couples: a randomized controlled trial. <i>Journal of Clinical Epidemiology</i> 56(5):421–32.  | Searches | Change in weight (kg) not reported.   |
| Cox KL, Burke V, Morton AR, Beilin LJ, Puddey IB (2003) The independent and combined effects of 16 weeks of vigorous exercise and energy restriction on body mass and composition in free-living overweight men – a randomized controlled trial. <i>Metabolism: Clinical and Experimental</i> 52(1):107–115. | Shaw CR  | Weight loss not reported.   |
| Cox KL, Burke V, Morton AR, Beilin LJ, Puddey IB (2004) Independent and additive effects of energy restriction and exercise on glucose and insulin concentrations in sedentary overweight men. <i>American Journal of Clinical Nutrition</i> 80(2):308–316.  | Searches | Not 52-week follow-up.  |
| Cox KL, Puddey IB, Morton AR, Burke V, Beilin LJ, McAleer M (1996) Exercise and weight control in sedentary overweight men: effects on clinic and ambulatory blood pressure. <i>Journal of Hypertension</i> 14(6):779–90.  | Searches | Not 52-week follow-<br>up.  |
| Deibert P, Konig D, Schmidt-Trucksaess A et al. (2004) Weight loss without losing muscle mass in pre-obese and obese subjects induced by a high-soy-protein diet. <i>International Journal of Obesity and Related Metabolic Disorders</i> 28(10):1349–52.  | Searches | Not 52-week follow-up.  |
| Dunn AL, Garcia ME, Marcus BH, Kampert JB, Kohl HW, Blair SN (1998) Six-month physical activity and fitness changes in Project Active, a randomized trial. <i>Medicine and Science in Sports and Exercise</i> 30(7):1076–83.   | Morgan   | Not 52-week follow-<br>up. No weight<br>outcomes.   |
| Dunn AL, Marcus BH, Kampert JB, Garcia ME, Kohl HW III, Blair SN (1999) Comparison of lifestyle and structured interventions to increase physical activity and cardiorespiratory fitness: a randomized trial. <i>Journal of the American Medical Association</i> 281(4):327–34.                              | Searches | Not required to be overweight.  |
| Dzator JA, Hendrie D, Burke V et al. (2004) A randomized trial of interactive group sessions achieved greater improvements in nutrition and physical activity at a tiny increase in cost. <i>Journal of Clinical Epidemiology</i> 57(6):610–19.  | Searches | Change in weight (kg) not reported.   |
| Esposito K, Giugliano F, Di Palo C et al. (2004) Effect of lifestyle changes on erectile dysfunction in obese men: a randomized controlled trial. <i>Journal of the American Medical</i>   | Searches | No details of level of PA.  |
| Association 29 (24):2978–84. Esposito K, Pontillo A, Di Palo C et al. (2003) Effect of weight loss and lifestyle changes on vascular inflammatory markers in obese women: a randomized trial. <i>Journal of the American Medical Association</i> 289(14):1799–1804.  | Searches | No details of level of PA.  |

| Study  | Source             | Reason for exclusion  |
|--|--------------------|---|
| Fagerberg B, Wiklund O, Agewall S, Camejo G, Wikstrand RJ (1996) Multifactorial treatment of hypertensive men at high cardiovascular risk and low-density lipoprotein cholesterol affinity to human arterial proteoglycans. <i>European Journal of Clinical Investigation</i> 26(11):960–65.               | AHRQ               | Intervention included<br>smoking cessation,<br>which may have had<br>an effect on weight<br>change. |
| Fox KR (2004) Impact assessment of Body Magic, Slimming World's physical activity promotion campaign.  | Submitted evidence | Survey, not RCT.  |
| Gillett PA & Eisenman PA (1987) The effect of intensity controlled aerobic dance exercise on aerobic capacity of middle-aged, overweight women. <i>Research in Nursing and Health</i> 10(6):383–90.  | Searches           | Not 52-week follow-up.  |
| Gordon NF, Scott CB, Levine BD (1997) Comparison of single versus multiple lifestyle interventions: are the antihypertensive effects of exercise training and diet-induced weight loss additive? <i>American Journal of Cardiology</i> 79(6):763–7.  | Shaw CR            | Not 52-week follow-up.  |
| Grant S, Todd K, Aitchison TC, Kelly P, Stoddart D (2004) The effects of a 12-week group exercise programme on physiological and psychological variables and function in overweight women. <i>Public Health</i> 11(1):31–42.   | Searches           | Not 52-week follow-up.  |
| Harland J, White M, Drinkwater C, Chinn D, Farr L, Howel D (1999) The Newcastle exercise project: a randomised controlled trial of methods to promote physical activity in primary care.<br>British Medical Journal 319 (7213):828–32.   | Morgan             | No details of baseline BMI status. Participants did not have to be overweight.                      |
| Hays NP, Starling RD, Liu X et al. (2004) Effects of an ad libitum low-fat, high-carbohydrate diet on body weight, body composition, and fat distribution in older men and women: a randomized controlled trial. <i>Archives of Internal Medicine</i> 164(2):210–17.                                       | Searches           | Not 52 week follow-<br>up   |
| Hellenius ML, de Faire U, Berglund B, Hamsten A, Krakau I (1993) Diet and exercise are equally effective in reducing risk for cardiovascular disease. Results of a randomized controlled study in men with slightly to moderately raised cardiovascular risk factors. <i>Atherosclerosis</i> 103(1):81–91. | Shaw CR            | Not 52-week follow-up.  |
| Heshka S, Anderson JW, Atkinson RL et al. (2003) Weight loss with self-help compared with a structured commercial program: a randomized trial. <i>Journal of the American Medical Association</i> 289(14):1792–8.  | Searches           | Non-clinical setting  |
| Jakicic JM, Wing RR, Butler BA, Robertson RJ (1995) Prescribing exercise in multiple short bouts versus one continuous bout: effects on adherence, cardiorespiratory fitness, and weight loss in overweight women. <i>International Journal of Obesity and Related Metabolic Disorders</i> 19(12):893–901. | Searches           | Not 52-week follow-up.  |
| Janssen I, Fortier A, Hudson R, Ross R (2002) Effects of an energy-restrictive diet with or without exercise on abdominal fat, intermuscular fat, and metabolic risk factors in obese  | Shaw CR            | Not 52-week follow-up.  |
| women. <i>Diabetes Care</i> 25(3):431–8.  Jen KL, Djuric Z, DiLaura NM (2004) Improvement of metabolism among obese breast cancer survivors in differing weight loss regimens. <i>Obesity Research</i> 12(2):306–312.  | Searches           | No detail of PA.  |
| Kaplan RM, Hartwell SL, Wilson DK, Wallace JP (1987) Effects of diet and exercise interventions on control and quality of life in non-insulin-dependent diabetes mellitus. <i>Journal of General Internal Medicine</i> 2(4):220–8.   | Avenell<br>HTA     | Not overweight or obese requirement   |

| Study  | Source   | Reason for exclusion   |
|--|----------|--|
| Keele-Smith R, Leon T (2003) Evaluation of individually tailored interventions on exercise adherence. <i>Western Journal of Nursing Research</i> 25(6):623–40.   | Searches | Not 52-week follow-<br>up  |
| Kiernan M, King AC, Stefanick ML, Killen JD (2001) Men gain additional psychological benefits by adding exercise to a weight-loss program. <i>Obesity Research</i> 9(12):770–77.   | Shaw CR  | Part of Wood 1991 trial.   |
| Knowler WC, Barrett-Connor E, Fowler SE et al. (2002) Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. <i>New England Journal of Medicine</i> 346(6):393–403.   | Shaw CR  | Compared lifestyle intervention with standard BT and placebo or standard BT and metformin. |
| Kostis JB, Wilson AC, Shindler DM, Cosgrove NM, Lacy CR (2002) Persistence of normotension after discontinuation of lifestyle intervention in the trial of TONE Trial of Nonpharmacologic Interventions in the Elderly. <i>American Journal of Hypertension</i> 15(8):732–4.   | AHRQ     | Part of the TONE<br>study included in the<br>HTA diet, BT, PA<br>vs. control review.       |
| Krummel DA, Semmens E, Boury J, Gordon PM, Larkin KT (2004) Stages of change for weight management in postpartum women. <i>Journal of the American Dietetic Association</i> 104(7):1102–108.   | Searches | Not results of the<br>RCT. Not published<br>yet (April 2005)                               |
| Kumanyika SK, Espeland MA, Bahnson JL et al. (2002). Ethnic comparison of weight loss in the Trial of Nonpharmacologic Interventions in the Elderly. <i>Obesity Research</i> 10(2):96–106.   | AHRQ     | Part of the TONE<br>study included in the<br>HTA diet, BT, PA<br>vs. control review.       |
| Laitinen JH, Ahola IE, Sarkkinen ES, Winberg RL, Harmaakorpi-Iivonen PA, Uusitupa MI (1993) Impact of intensified dietary therapy on energy and nutrient intakes and fatty acid composition of serum lipids in patients with recently diagnosed non-insulin-dependent diabetes mellitus. <i>Journal of the American Dietetic Association</i> 93(3):276–83. | НТА      | No requirement for participants to be overweight.  |
| Lamb SE, Bartlett HP, Ashley A, Bird W (2002) Can lay-led walking programmes increase physical activity in middle aged adults? A randomised controlled trial. <i>Journal of Epidemiology and Community Health</i> 56(4):246–52.  | Morgan   | Not BMI $\geq$ 28 kg/m <sup>2</sup> .  |
| Lejeune MP, Aggel-Leijssen DP, Van Baak MA, Westerterp-Plantenga MS (2003) Effects of dietary restraint vs exercise during weight maintenance in obese men. <i>European Journal of Clinical Nutrition</i> 57(10):1338–44.  | Searches | Results shown<br>graphically only.<br>Also, most analysis<br>not by group.                 |
| Leutholtz BC, Keyser RE, Heusner WW, Wendt VE, Rosen L (1995) Exercise training and severe caloric restriction: effect on lean body mass in the obese. <i>Archives of Physical Medicine and Rehabilitation</i> 76(1):65–70.  | Searches | Not 52-week follow-<br>up.   |
| JM Manning, CR Dooly-Manning, K White et al. (1991) Effects of a resistive training program on lipoprotein – lipid levels in obese women. <i>Medicine and Science in Sports and Exercise</i> 23(11):1222–6.  | Shaw CR  | Not 52-week follow-up.   |
| Marcus BH, Stanton AL (1993) Evaluation of relapse prevention and reinforcement interventions to promote exercise adherence in sedentary females. <i>Research Quarterly for</i>  | Morgan   | Not 52-week follow-up.   |
| Exercise and Sport 64(4):447–52.  McAuley E, Courneya KS, Rudolph DL, Lox CL (1994) Enhancing exercise adherence in middle-aged males and females. <i>Preventive Medicine</i> 23(4):498–506.   | Morgan   | Not 52-week follow-up.   |

| Study   | Source                 | Reason for exclusion                                   |
|---|------------------------|--|
| Melanson K, Gootman J, Myrdal A, Kline G, Rippe JM (2003) Weight loss and total lipid profile changes in overweight women consuming beef or chicken as the primary protein source. <i>Nutrition</i> 19(5):409–414.  | Searches               | Not 52-week follow-<br>up.                             |
| Munsch S, Biedert E, Keller U (2003) Evaluation of a lifestyle change programme for the treatment of obesity in general practice. <i>Swiss Medical Weekly</i> 133(9/10):148–54.   | Searches               | No details of PA reported – other than increased       |
| Neumark-Sztainer D, Kaufmann NA, Berry EM (1995) Physical activity within a community-based weight control program: program evaluation and predictors of success. <i>Public Health Reviews</i> 23(3):237–51.  | Shaw CR                | Excluded from HTA as not 52-week follow-up.            |
| Nieman DC, Nehlsen-Cannarella SL, Henson DA et al. (1998) Immune response to exercise training and/or energy restriction in obese women. <i>Medicine and Science in Sports and Exercise</i> 30(5):679–86  | Shaw CR                | Not 52-week follow-up.                                 |
| O'Toole ML, Sawicki MA, Artal R (2003) Structured diet and physical activity prevent postpartum weight retention. <i>Journal of Women's Health</i> 12(10):991–8.  | Searches               | Participants were women in the first year post-partum. |
| Okura T, Nakata Y, Tanaka K (2003) Effects of exercise intensity on physical fitness and risk factors for coronary heart disease. <i>Obesity Research</i> 11(9):1131–9.   | Searches               | Not 52-week follow-<br>up.                             |
| Phenix A (1990) A one year follow-up of a weight loss study comparing behavioural techniques, nutrition information and exercise. PhD thesis: California School of Professional Psychology, Fresno.   | Avenell<br>HTA         | Unpublished PhD thesis only.                           |
| Pinto BM, Friedman R, Marcus BH, Kelley H, Tennstedt S, Gillman MW (2002) Effects of a computer-based, telephone-counseling system on physical activity. <i>American Journal of Preventive Medicine</i> 23(2):113–20.   | PH cross-<br>reference | Not 52-week follow-up.                                 |
| Raz I, Hauser E, Bursztyn M (1994) Moderate exercise improves glucose metabolism in uncontrolled elderly patients with non-insulin-dependent diabetes mellitus. <i>Israeli Journal of Medical Science</i> 30(10):766–70.  | Shaw CR                | Not 52-week follow-up.                                 |
| Robertson MC, Devlin N, Gardner MM, Campbell AJ (2001) Effectiveness and economic evaluation of a nurse delivered home exercise programme to prevent falls. 1: Randomised controlled trial. <i>British Medical Journal</i> 322(7288):697–701. Robertson MC, Gardner MM, Devlin N, McGee R, Campbell AJ (2001) Effectiveness and economic evaluation of a nurse delivered home exercise programme to prevent falls. 2: Controlled trial in multiple centres. <i>British Medical Journal</i> 322(7288):701–704. | Morgan                 | No weight outcomes.                                    |
| Ross R, Rissanen J, Pedwell H, Clifford J, Shragge P (1996) Influence of diet and exercise on skeletal muscle and visceral adipose tissue in men. <i>Journal of Applied Physiology</i> 81(6):2445–55.   | Shaw CR                | Not 52-week follow-up.                                 |
| Ross R, Janssen I, Dawson J et al. (2004) Exercise-induced reduction in obesity and insulin resistance in women: a randomized controlled trial. <i>Obesity Research</i> 12(5):789–98.   | Searches               | Not 52-week follow-up.                                 |
| Sartorio A, Lafortuna CL, Marinone PG, Tavani A, La Vecchia C, Bosetti C (2003) Short-term effects of two integrated, non-pharmacological body weight reduction programs on coronary heart disease risk factors in young obese patients. <i>Diabetes</i> , <i>Nutrition and Metabolism</i> 16(4):262–5.   | Searches               | Not 52-week follow-up.                                 |

| Study  | Source         | Reason for exclusion  |
|--|----------------|---|
| Sartorio A, Lafortuna CL, Massarini M, Galvani C (2003)<br>Effects of different training protocols on exercise performance<br>during a short-term body weight reduction programme in<br>severely obese patients. <i>Eating and Weight Disorders</i> 8(1):36–   | Searches       | Not 52-week follow-up.  |
| 43. Sartorio A, Maffiuletti NA, Agosti F, Marinone PG, Ottolini S, Lafortuna CL (2004) Body mass reduction markedly improves muscle performance and body composition in obese females aged 61–75 years: comparison between the effects exerted by energy-restricted diet plus moderate aerobic-strength training alone or associated with rGH or nandrolone undecanoate. | Searches       | Not 52-week follow-<br>up.  |
| European Journal of Endocrinology 150(4):511–15. Schmitz KH, Jensen MD, Kugler KC, Jeffery RW, Leon AS (2003) Strength training for obesity prevention in midlife women. International Journal of Obesity and Related Metabolic Disorders 27(3):326–33.  | Searches       | Not 52-week follow-<br>up.  |
| Schwartz RS (1987) The independent effects of dietary weight loss and aerobic training on high density lipoproteins and apolipoprotein A-I concentrations in obese men. <i>Metabolism:</i> Clinical and Experimental 36(2):165–71.   | Shaw CR        | Not 52-week follow-up.  |
| Schwartz RS, Jaeger LF, Veith RC, Lakshminarayan S (1990) The effect of diet or exercise on plasma norepinephrine kinetics in moderately obese young men. <i>International Journal of Obesity</i> 14(1):1–11.  | Shaw CR        | Not 52-week follow-up.  |
| Simkin-Silverman LR, Wing RR, Boraz MA, Kuller LH (2003) Lifestyle intervention can prevent weight gain during menopause: results from a 5-year randomized clinical trial. <i>Annals of Behavioral Medicine</i> 26(3):212–20.  | Searches       | Not BMI ≥28 kg/m <sup>2</sup> .<br>Mean BMI was<br>25 kg/m <sup>2</sup> . |
| Simons-Morton DG (2001) Effects of physical activity counseling in primary care: The activity counseling trial: A randomized controlled trial. <i>Journal of the American Medical Association</i> 286(6): 677–87.  | Hillsdon<br>CR | No weight outcomes.   |
| Slentz CA, Duscha BD, Johnson JL et al. (2004) Effects of the amount of exercise on body weight, body composition, and measures of central obesity: STRRIDE – a randomized controlled study. <i>Archives of Internal Medicine</i> 164(1):31–9.   | Searches       | Not 52-week follow-up.  |
| Stefanick ML, Mackey S, Sheehan M, Ellsworth N, Haskell WL, Wood PD (1998) Effects of diet and exercise in men and postmenopausal women with low levels of HDL cholesterol and high levels of LDL cholesterol. <i>New England Journal of Medicine</i> 339(1):12–20.  | Shaw CR        | Excluded from HTA as BMI not $\geq 28 \text{ kg/m}^2$ .                   |
| Stensel DJ, Brooke-Wavell K, Hardman AE, Jones PR, Norgan NG (1994) The influence of a 1-year programme of brisk walking on endurance fitness and body composition in previously sedentary men aged 42–59 years. <i>European Journal of Applied Physiology and Occupational Physiology</i> 68(6):531–7.  | Shaw CR        | Not BMI ≥28 kg/m <sup>2</sup> .   |
| Stevens W, Hillsdon M, Thorogood M, McArdle D (1998)<br>Cost-effectiveness of a primary care based physical activity<br>intervention in 45–74 year old men and women: a randomised<br>controlled trial. <i>British Journal of Sports Medicine</i> 32(3):236–41.  | Morgan         | No weight outcomes.<br>Not 52-week follow-<br>up.                         |

| Study   | Source   | Reason for exclusion   |
|---|----------|--|
| Svendsen OL, Hassager C, Christiansen C (1993) Effect of an energy-restrictive diet, with or without exercise, on lean tissue mass, resting metabolic rate, cardiovascular risk factors, and bone in overweight postmenopausal women. <i>American Journal of Medicine</i> 95(2):131–40.   | Shaw CR  | Not 52-week follow-up.   |
| Tate DF, Jackvony EH, Wing RR (2003) Effects of Internet behavioral counseling on weight loss in adults at risk for type 2 diabetes: a randomized trial. <i>Journal of the American Medical Association</i> 289(14):1833–6.   | Searches | Compared diet, BT<br>and PA with<br>different levels of<br>support – non-<br>clinical setting.   |
| Taylor AH, Doust J, Webborn N (1998) Randomised controlled trial to examine the effects of a GP exercise referral programme in Hailsham, East Sussex, on modifiable coronary heart disease risk factors. <i>Journal of Epidemiology Community Health</i> 52(9):595–601.   | Morgan   | No weight outcomes (BMI only, skinfold thicknesses). Not 52-week follow-up. Not overweight only. |
| Thong FS, Hudson R, Ross R, Janssen I, Graham TE (2000) Plasma leptin in moderately obese men: independent effects of weight loss and aerobic exercise. <i>American Journal of Physiology</i> 279(2):E307–313.  | Shaw CR  | Not 52-week follow-<br>up.   |
| Utter AC, Whitcomb DC, Nieman DC, Butterworth DE, Vermillion SS (2000) Effects of exercise training on gallbladder function in an obese female population. <i>Medicine and Science in Sports and Exercise</i> 32(1):41–5.   | Shaw CR  | Not 52-week follow-up.   |
| Wadden TA, Vogt RA, Andersen RE et al. (1997) Exercise in the treatment of obesity: effects of four interventions on body composition, resting energy expenditure, appetite, and mood. <i>Journal of Consulting and Clinical Psychology</i> 65(2):269–77.   | Shaw CR  | Excluded from HTA as not 52 week follow-up   |
| Wallace MB, Mills BD, Browning CL (1997) Effects of cross-training on markers of insulin resistance/hyperinsulinemia. <i>Medicine and Science in Sports and Exercise</i> 29(9):1170–5.  | Searches | Not 52-week follow-up.   |
| Whatley JE, Gillespie WJ, Honig J, Walsh MJ, Blackburn AL, Blackburn GL (1994) Does the amount of endurance exercise in combination with weight training and a very-low-energy diet affect resting metabolic rate and body composition? <i>American Journal of Clinical Nutrition</i> 59(5):1088–92.                                      | Shaw CR  | Not 52-week follow-up.   |
| Whelton PK, Appel LJ, Espeland MA et al. (1998) Sodium reduction and weight loss in the treatment of hypertension in older persons: a randomized controlled trial of nonpharmacologic interventions in the elderly (TONE). TONE Collaborative Research Group. <i>Journal of the American Medical Association</i> 279(11):839–46.          | AHRQ     | Included in HTA diet, BT, PA vs. control (TONE).   |
| Wirth A, Diehm C, Hanel W, Welte J, Vogel I (1985) Training-induced changes in serum lipids, fat tolerance, and adipose tissue metabolism in patients with hypertriglyceridemia.  Atherosclerosis 54(3):263–71.   | Shaw CR  | Not 52-week follow-up.   |
| Yancy WS Jr, Olsen MK, Guyton JR, Bakst RP, Westman EC (2003) A low-carbohydrate, ketogenic diet versus a low-fat diet to treat obesity and hyperlipidemia: a randomized, controlled trial. <i>Annals of Internal Medicine</i> 140(10):769–77.  | Searches | Not 52-week follow-up.   |
| You T, Berman DM, Ryan AS, Nicklas BJ (2004) Effects of hypocaloric diet and exercise training on inflammation and adipocyte lipolysis in obese postmenopausal women [erratum appears in <i>Journal of Clinical Endocrinology and Metabolism</i> 2004;89(6):2972]. <i>Journal of Clinical Endocrinology and Metabolism</i> 89(4):1739–46. | Searches | Not 52-week follow-<br>up.   |

| Study   | Source   | Reason for exclusion            |
|---|----------|---------------------------------|
| Yu CM, Li LS, Ho HH, Lau CP (2003) Long-term changes in exercise capacity, quality of life, body anthropometry, and lipid profiles after a cardiac rehabilitation program in obese patients with coronary heart disease. <i>American Journal of Cardiology</i> 91(3):321–5. | Searches | Not BMI ≥28 kg/m <sup>2</sup> . |

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# 1.6 Pharmacological interventions

### 3 **1.6.1 Orlistat**

| Study   | Source                          | Reason for exclusion   |
|---|---------------------------------|--|
| Bloch KV, Salles GF, Muxfeldt ES, Da Rocha N (2003) Orlistat in hypertensive overweight/obese patients: results of a randomized clinical trial. <i>Journal of Hypertension</i> 21(11):2159–65.  | Norris CR                       | Not 52-week follow-up (adults).  |
| Bonnici F (2002) Effect of orlistat on glycemic control and body weight in overweight or obese South African patients with type 2 diabetes. <i>Diabetes</i> 51(Suppl 2):1692.   | Norris CR                       | Not 52-week follow-up (adults).  |
| Deerchanawong C (2001) Effect of treatment with orlistat in overweight or obese Thai patients with type 2 diabetes. <i>Diabetes</i> 50(Suppl 2):A433  | Norris CR                       | Not 52-week follow-up (adults).  |
| Derosa G, Mugellini A, Ciccarelli L, Rinaldi A, Fogari R (2002) Effects of orlistat, simvastatin, and orlistat + simvastatin in obese patients with hypercholesterolemia: A randomized, open-label trial. <i>Current Therapeutic Research, Clinical and Experimental</i> 42:621–33. | Searches                        | Compared diet + orlistat with diet + simvastatin, and diet + orlistat + simvastatin. No placebo control group. |
| Derosa G, Cicero AFG, Murdolo G, Ciccarelli L, Fogari R (2004) Comparison of metabolic effects of orlistat and sibutramine treatment in Type 2 diabetic obese patients. <i>Diabetes, Nutrition and Metabolism</i> 17(4):222–9.  | Searches                        | No weight outcome (kg) reported. Only change in BMI reported.  |
| Derosa G, Cicero AF, Murdolo G et al. (2005) Efficacy and safety comparative evaluation of orlistat and sibutramine treatment in hypertensive obese patients. <i>Diabetes Obesity and Metabolism</i> 7(1):47–55.  | Derosa<br>publication<br>search | No control group. Direct comparison of orlistat and sibutramine in people with hypertension.                   |
| Dixon et al.( 2004) Evaluation of the association between health-related utility and obesity in hospital treated subjects. ISPOR 2004. Anonymous. Anonymous.10-2004.  | Submitted evidence              | Economic evaluation – conference presentation. No publications found – June 2005                               |

| Study   | Source             | Reason for exclusion   |
|---|--------------------|--|
| J Erdmann, F Lippl, G Klose, V Schusdziarra (2004) Cholesterol lowering effect of dietary weight loss and orlistat treatment – efficacy and limitations. <i>Alimentary Pharmacology and Therapeutics</i> 19(11):1173–1179, 2004.          | Searches           | Not 52-week follow-up (adults).  |
| Guy-Grand B, Gin H, Valensi P, Crouin P, Eschwege E (2001) Differential weight loss in orlistat treated obese and overweight patients with various comorbidities. <i>International Journal of Obesity</i> :S93.                           | Norris CR          | Not 52-week follow-up. (adults)  |
| Hakim Z, Wolf A, Garrison LP (2002) Estimating the effect of changes in body mass index on health state preferences. <i>Pharmacoeconomics</i> 20(6):393–404.  | Submitted evidence | Economic evaluation – used to cross-reference. No additional references found.                               |
| Halpern A, Mancini MC, Suplicy H et al. (2003) Latin-American trial of orlistat for weight loss and improvement in glycaemic profile in obese diabetic patients. <i>Diabetes, Obesity and Metabolism</i> 5:180–8.                         | Norris CR          | Not 52-week follow-up (adults).  |
| Hanefeld M, Sachse G (2002) The effects of orlistat on body weight and glycaemic control in overweight patients with type 2 diabetes: a randomized, placebo-controlled trial. <i>Diabetes, Obesity and Metabolism</i> 4(6):415–23.        | Searches           | Not 52-week follow-up. Four-week pre-treatment (weeks –4 to 0) with 48-week treatment phase (weeks 1 to 48). |
| Hawkins F, Duran S, Vilardell E et al. (2000)<br>Orlistat promotes glycemic control and other<br>cardiovascular risk factors lowering in obese<br>patients with type 2 diabetes. Randomised<br>clinical trial. <i>Diabetologia</i> 43:658 | Norris CR          | Not 52-week follow-up (adults).  |
| Hsieh C, Wang P, Liu R et al. (2005) Orlistat for obesity: benefits beyond weight loss. <i>Diabetes Research and Clinical Practice</i> 67(1):78–83.   | Searches           | No weight outcome (kg) reported.   |
| Jayagopal V, Kilpatrick ES, Holding S, Jennings PE, Atkin SA (2004) Orlistat and metformin are equally beneficial in reducing hyperandrogenaemia in polycystic ovary syndrome.  | Submitted evidence | Not 52-week follow-up (adults).  |
| Kelley DE, Kuller LH, McKolanis TM, Harper P, Kalhan S (2004) Effects of moderate weight loss and orlistat on insulin resistance, regional adiposity, and fatty acids in type 2 diabetes. <i>Diabetes Care</i> 27(1):33–40.               | Norris CR          | Not 52-week follow-up (adults).  |

| Study  | Source             | Reason for exclusion   |
|--|--------------------|--|
| Lucas CP, Boldrin MN, Reaven GM (2003)<br>Effect of orlistat added to diet (30% of calories<br>from fat) on plasma lipids, glucose, and insulin in<br>obese patients with hypercholesterolemia.<br>American Journal of Cardiology 91(8):961–64.  | Searches           | Subset of participants in five RCTs. No details of which trials were reported.       |
| Mathus-Vliegen EM, Van Ierland-Van Leeuwen ML, Terpstra A (2004) Lipase inhibition by orlistat: effects on gall-bladder kinetics and cholecystokinin release in obesity. <i>Alimentary Pharmacology and Therapeutics</i> 19(5):601–611.  | Searches           | Designed as an observational study, only part of a full RCT – no references found.   |
| McEwan P (2004) Evaluation of the cost-utility of orlistat in the UK ISPOR 2004. Anonymous. Anonymous. 10-2004.  | Submitted evidence | Economic evaluation – poster only.   |
| Mendoza Guadarrama LG, Lopez Alvarenga JC, Castillo Martinez L et al. (2000) Orlistat reduces visceral fat independent of weight changes in obese diabetics type 2. <i>International Journal of Obesity</i> 24(Suppl 1):S167.  | Norris CR          | Not 52-week follow-up (adults).  |
| Muls E, Kolanowski J, Scheen A, Van Gaal L, ObelHyx Study Group (2001) The effects of orlistat on weight and on serum lipids in obese patients with hypercholesterolemia: a randomized, double-blind, placebo-controlled, multicentre study. <i>International Journal of Obesity and Related Metabolic Disorders</i> 25(11):1713–21. | Searches           | Not 52-week follow-up (adults).  |
| National Institute of Child Health and Human Development (NICHD) (2003) Safety and efficacy of Xenical in children and adolescents with obesity-related diseases. <i>ClinicalTrials.gov</i> .  | Searches           | Study currently recruiting?<br>Checked for publications, but no<br>references found. |
| Prentice A, Jebb S, Blskett A, Corner A (2004) A patient support programme for orlistat: analysis of adherence and weight loss. <i>International Journal of Obesity</i> 28(Suppl 1):S28.   | Submitted evidence | Abstract only. No publications found – June 2005.                                    |
| Rissanen A (2004) Effect of orlistat in the prevention of weight gain and in long-term weight maintenance in abdominally obese patients after a very low calorie diet (VLCD) (Final study report).   | Submitted evidence | Retrospective analysis of two trials (Sjostrom 1998; Rossner 2000), both in HTA.     |
| Serrano Rios M, Armero F, Genis M (2001)<br>Orlistat efficacy on weight loss in overweight or<br>obese patients with type 2 diabetes mellitus.<br>Diabetes 50(Suppl 1):A131.   | Norris CR          | Not 52-week follow-up (adults).  |

| Study  | Source             | Reason for exclusion   |
|--|--------------------|--|
| Sjostrom CD, Peltonen M, Wedel H, Sjostrom L (2000) Differentiated long-term effects of intentional weight loss on diabetes and hypertension. <i>Hypertension</i> 36(1):20–25.   | Searches           | In HTAs as Sjostrom 1998.  |
| Tiikkainen M, Bergholm R, Rissanen A et al. (2004) Effects of equal weight loss with orlistat and placebo on body fat and serum fatty acid composition and insulin resistance in obese women. <i>American Journal of Clinical Nutrition</i> 79(1):22–30.   | Searches           | Not 52-week follow-up (adults).  |
| Tong PC, Lee ZS, Sea MM et al. (2002). The effect of orlistat-induced weight loss, without concomitant hypocaloric diet, on cardiovascular risk factors and insulin sensitivity in young obese Chinese subjects with or without type 2 diabetes. <i>Archives of Internal Medicine</i> 162(21):2428–35. | Searches           | Not RCT (adults aged 18 to 50 years).  |
| Vlassov VV (2001) Weight reduction for reducing mortality in obesity and overweight. In Vlassov VV, Weight reduction for reducing mortality in obesity and overweight. The Cochrane Database of Systematic Reviews: Protocols 2001 Issue 3. John Wiley & Sons, Ltd Chichester, UK.                     | Searches           | Cochrane protocol only.  |
| Wadden TA, Berkowitz RI, Womble LG, Sarwer DB, Arnold ME, Steinberg CM (2000) Effects of sibutramine plus orlistat in obese women following 1 year of treatment by sibutramine alone: a placebo-controlled trial. <i>Obesity Research</i> 8(6):431–437.  | НТА                | Excluded from orlistat review as continuation study of sibutramine RCT, with 16-week trial of add-on orlistat. |
| Wang Y, Liu C, Liu Y (2003) Orlistat for adjutant treatment of fatty type 2 diabetes mellitus in 32 patients. <i>Chinese Journal of New Drugs</i> 22(11):651–3.  | Norris CR          | Not 52-week follow-up (adults).  |
| Wirth A, Platon J (2001) Effect of orlistat on body weight and co-morbidities in clinical practice: The xxl-Primary Health Care Observational Trial. <i>International Journal of Obesity</i> 25:062.   | Submitted evidence | No published references found – June 2005.   |
| Wirth A (2004) Sustained weight reduction after cessation of obesity treatment with Sibutramine. <i>Deutsche Medizininische Wochenschrift</i> 129(18):1002–5.  | Submitted evidence | Not RCT – post-marketing surveillance assumed to be adults (mean age 48 years).                                |

| Study   | Source   | Reason for exclusion |
|---|----------|----------------------|
| Zoss I, Piec G, Horber FF (2002) Impact of orlistat therapy on weight reduction in morbidly obese patients after implantation of the Swedish adjustable gastric band. <i>Obesity Surgery</i> 12(1): | Searches | Not RCT.             |

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### 1.6.2 Sibutramine

| Study   | Source             | Reason for exclusion   |
|---|--------------------|--|
| Apfelbaum M, Vague P, Ziegler O, Hanotin C, Thomas F, Leutenegger E (1999) Long-term maintenance of weight loss after a very-low-calorie diet: a randomized blinded trial of the efficacy and tolerability of sibutramine. <i>American Journal of Medicine</i> 106(2):179–84. | Submitted evidence | In HTA.  |
| Ara R, Brennan A (2004) Economic evaluation of sibutramine for the treatment of obesity in adults without other co-morbidities in the UK Anonymous. Anonymous. Sheffield: ScHARR, University of Sheffield. 1-49. From Abbott.   | Submitted evidence | Economic evaluation – used to cross-reference clinical effectiveness. Of five possible trials, one excluded as German post marketing surveillance reports (see Scholze), and others to be scanned for inclusion (Hauner, James, Smith, Wirth). |
| Arterburn DE, Crane PK, Veenstra DL (2004) The efficacy and safety of sibutramine for weight loss: a systematic review. <i>Archives of Internal Medicine</i> 164(9):994–1003.   | Searches           | Systematic review – used to cross-reference (adults only). Of five possible 52 week trials, one included in TA (Apfelbaum), and others to be scanned for inclusion (Hauner, <sup>1</sup> James, McNulty, Smith).                               |
| Bach DS, Rissanen AM, Mendel CM et al. (1999) Absence of cardiac valve dysfunction in obese patients treated with sibutramine. <i>Obesity Research</i> 7(4):363–9.  | Submitted evidence | Not 52-week follow-up (adults).  |
| Barkeling B, Elfhag K, Rooth P, Rossner S (2003) Short-term effects of sibutramine (Reductil) on appetite and eating behaviour and the long-term therapeutic outcome. <i>International Journal of Obesity and Related Metabolic Disorders</i> 27(6):693–700.                  | Submitted evidence | Not 52-week follow-up (adults).  |
| Birkenfeld AL, Schroeder C, Boschmann M et al. (2002) Paradoxical effect of sibutramine on autonomic cardiovascular regulation. <i>Circulation</i> 106(19):2459–65.   | Submitted evidence | Not 52-week follow-up (adults).  |

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<sup>&</sup>lt;sup>1</sup> Hauner 2000 is a conference presentation of Hauner 2004.

| Study   | Source                             | Reason for exclusion                        |
|---|------------------------------------|---|
| Bray GA, Blackburn GL, Ferguson JM et al. (1999) Sibutramine produces dose-related weight loss. <i>Obesity Research</i> 7(2):189–98.  | Submitted evidence                 | Not 52-week follow-up (adults).             |
| Brennan A, Ara R, Sterz R, Matiba B, Bergemann R (2004) Cost-utility analysis of sibutramine for the treatment of obese adults without other co-morbidities in Germany. <i>International Journal of Obesity</i>   | Submitted evidence                 | No published references found (June 2005).  |
| Canadian Coordinating Office for Health Technology Assessment (2001) Sibutramine. <i>Emerging Drug List</i> .   | Searches                           | Summary of evidence – no clear referencing. |
| Cuellar GE, Ruiz AM, Monsalve MC, Berber A (2000) Six-month treatment of obesity with sibutramine 15 mg; a double-blind, placebocontrolled monocenter clinical trial in a Hispanic population. <i>Obesity Research</i> 8(1):71–82.  | Submitted<br>evidence              | Not 52-week follow-up (adults).             |
| Derosa G, Cicero GAF, Murdolo G, Ciccarelli L, Fogari R (2004) Comparison of metabolic effects of orlistat and sibutramine treatment in Type 2 diabetic obese patients. <i>Diabetes</i> , <i>Nutrition and Metabolism</i> 17(4):222–9.  | Searches                           | No weight outcomes, only BMI.               |
| Dujovne CA, Zavoral JH, Rowe E, Mendel CM, Sibutramine Study Group (2001) Effects of sibutramine on body weight and serum lipids: a double-blind, randomized, placebocontrolled study in 322 overweight and obese patients with dyslipidemia. <i>American Heart Journal</i> 142(3):489–97.                  | Submitted<br>evidence              | Not 52-week follow-up. (adults)             |
| Fanghanel G, Cortinas L, Sanchez L-Reyes, Berber A (2000) Clinical trial of the use of sibutramine for the treatment of patients suffering essential obesity. <i>International Journal of Obesity and Related Metabolic Disorders</i> 24(2):144–150.  | Searches,<br>submitted<br>evidence | Not 52-week follow-up (adults)/             |
| Fanghanel G, Cortinas L, Sanchez L-Reyes, Berber A (2001) Second phase of a double-blind study clinical trial on Sibutramine for the treatment of patients suffering essential obesity: 6 months after treatment cross-over.  International Journal of Obesity and Related Metabolic Disorders 25(5):741–7. |                                    |   |

| Study   | Source                             | Reason for exclusion            |
|---|------------------------------------|---------------------------------|
| Faria AN, Ribeiro Filho FF, Lerario DD, Kohlmann N, Ferreira SR, Zanella MT (2002) Effects of sibutramine on the treatment of obesity in patients with arterial hypertension. <i>Arquivos Brasileiros de Cardiologia</i> 78(2):172–180.                                 | Submitted evidence                 | Not 52-week follow-up (adults). |
| Finer N, Bloom SR, Frost GS, Banks LM, Griffiths J (2000) Sibutramine is effective for weight loss and diabetic control in obesity with type 2 diabetes: a randomised, double-blind, placebo-controlled study. <i>Diabetes, Obesity and Metabolism</i> 2(2):105–112.    | Submitted evidence                 | Not 52-week follow-up (adults). |
| Fujioka K, Seaton TB, Rowe E et al. (2000) Weight loss with sibutramine improves glycaemic control and other metabolic parameters in obese patients with type 2 diabetes mellitus. <i>Diabetes, Obesity and Metabolism</i> 2(3):175–87.                                 | Submitted evidence                 | Not 52-week follow-up (adults). |
| Gokcel A, Karakose H, Ertorer EM, Tanaci N, Tutuncu NB, Guvener N (2001) Effects of sibutramine in obese female subjects with type 2 diabetes and poor blood glucose control. <i>Diabetes Care</i> 24(11):1957–60.  | Searches,<br>submitted<br>evidence | Not 52-week follow-up (adults). |
| Griffiths J, Bloom SR, Finer N, Banks LM, Romanac FM (1995) Body compositional changes following weight loss induced by sibutramine. <i>International Journal of Obesity and Related Metabolic Disorders</i> 19:144.  | Submitted evidence                 | Not 52-week follow-up (adults). |
| Hadden 2001   | Searches,<br>submitted<br>evidence | In HTA as James 2000            |
| Hanotin C, Thomas F, Jones SP, Leutenegger E, Drouin P (1998) Efficacy and tolerability of sibutramine in obese patients: A dose-ranging study. <i>International Journal of Obesity</i> 22(1):32–8.   | Searches,<br>submitted<br>evidence | Not 52-week follow-up (adults). |
| Hansen DL, Toubro S, Stock MJ, Macdonald IA, Astrup A (1999) The effect of sibutramine on energy expenditure and appetite during chronic treatment without dietary restriction. <i>International Journal of Obesity and Related Metabolic Disorders</i> 23(10):1016–24. | Submitted evidence                 | Not 52-week follow-up (adults). |

| Study   | Source                             | Reason for exclusion   |
|---|------------------------------------|--|
| Hayman LL (2004) Toward evidence-based practice. (Commentary on) Behavior therapy and sibutramine for the treatment of adolescent obesity: a randomized controlled trial. <i>MCN: The American Journal of Maternal/Child Nursing</i> 29(1):68.                        | Searches                           | Evidence update – no appropriate references.                         |
| Hazenberg BP (2000) Randomized, double-blind, placebo-controlled, multicenter study of sibutramine in obese hypertensive patients. <i>Cardiology</i> 94(3):152–8.   | Submitted evidence                 | Not 52-week follow-up (adults).                                      |
| Hwu CM, Hung YJ, Kuo CS, Pei D, Jeng CY, Ho LT (2003) Sibutramine treatment enhances weight loss and reduces waist circumference in obese Chinese type 2 diabetic patients. <i>Journal of Parenteral and Enteral Nutrition</i> 27(1):S12–3.                           | Searches                           | Conference abstract only. No published references found (June 2005). |
| James WP, Astrup A, Finer N et al. (2000)<br>Effect of sibutramine on weight maintenance<br>after weight loss: a randomised trial. STORM<br>Study Group. Sibutramine Trial of Obesity<br>Reduction and Maintenance. <i>Lancet</i><br>356(9248):2119–25.               | Searches,<br>submitted<br>evidence | In HTA as James 1999.  |
| Kaukua JK, Pekkarinen TA, Rissanen AM (2004) Health-related quality of life in a randomised placebo-controlled trial of sibutramine in obese patients with type II diabetes. <i>International Journal of Obesity and Related Metabolic Disorders</i> 28(4):600–605.   | Searches                           | In HTA as Rissanen 1998.   |
| Li QF, Li R, Luo R, Wang ZH et al. (2002) Sibutramine capsules for treatment of simple obesity. <i>Chinese Journal of New Drugs and Clinical Remedies</i> 21(7):401–4.  | Searches                           | Chinese language.  |
| McMahon FG, Fujioka K, Singh BN et al. (2000) Efficacy and safety of sibutramine in obese white and African American patients with hypertension: a 1-year, double-blind, placebo-controlled, multicenter trial. <i>Archives of Internal Medicine</i> 160(14):2185–91. | Submitted evidence                 | In HTA.  |
| McNulty SJ, Ur E, Williams G, Multicenter Sibutramine Study Group (2003) A randomized trial of sibutramine in the management of obese type 2 diabetic patients treated with metformin. <i>Diabetes Care</i> 26(1):125–31.   | Searches,<br>submitted<br>evidence | In HTA as Williams 1999.   |

| Study  | Source                | Reason for exclusion                   |
|--|-----------------------|--|
| Norris SL, Zhang X, Avenell A et al. (2004) Efficacy of pharmacotherapy for weight loss in adults with type 2 diabetes mellitus: a meta-analysis. <i>Archives of Internal Medicine</i> 164(13):1395–1404.  | Submitted evidence    | Will use Norris CR to cross-reference. |
| Scholze J (2002) Sibutramine in clinical practice – a PMS-study with positive effects on blood pressure and metabolic parameters. <i>Deutsche Medizinische Wochenschrift</i> 127(12):606–610.  | Submitted evidence    | Not RCT (assumed to be adults only).   |
| Seagle HM, Bessesen DH, Hill JO (1998) Effects of sibutramine on resting metabolic rate and weight loss in overweight women. <i>Obesity Research</i> 6(2):115–21.  | Submitted evidence    | Not 52-week follow-up (adults).        |
| Serrano M-Rios, Melchionda N, Moreno-Carretero E, Spanish Investigators (2002) Role of sibutramine in the treatment of obese Type 2 diabetic patients receiving sulphonylurea therapy. <i>Diabetic Medicine</i> 19(2):119–24.  | Submitted evidence    | Not 52-week follow-up (adults).        |
| Sircar AR, Kumar A, Lal M (2001) Clinical evaluation of sibutramine in obese type 2 diabetic patients refractory to dietary management. <i>Journal of the Association of Physicians of India</i> 49:885–8.   | Submitted evidence    | Not 52-week follow-up (adults).        |
| Smith IG, Goulder MA, on behalf of the Members of the Sibutramine Clinical Study (2001) Randomized placebo-controlled trial of long-term treatment with sibutramine in mild to moderate obesity. <i>Journal of Family Practice</i> 50(6):505–512.  | Searches              | In HTA as Smith 1994.                  |
| Sramek JJ, Leibowitz MT, Weinstein SP et al. (2002) Efficacy and safety of sibutramine for weight loss in obese patients with hypertension well controlled by beta-adrenergic blocking agents: a placebo-controlled, double-blind, randomised trial. <i>Journal of Human Hypertension</i> 16(1):13–19. | Submitted<br>evidence | Not 52-week follow-up (adults).        |
| Tankova T, Dakovska G, Lazarova M, Dakovska L, Kirilov G, Koev D (2003) Sibutramine in the treatment of obesity in type 2 diabetic patients. <i>Endocrinologia</i> 8(4):257–65.  | Submitted evidence    | Not 52-week follow-up (adults).        |

| Study   | Source                             | Reason for exclusion  |
|---|------------------------------------|---|
| Toubro S, Hansen DL, Hilsted JC, Porsborg PA, Astrup AV (2001) The effect of sibutramine for the maintenance of weight loss: A randomised, clinical, controlled study. <i>Ugeskrift for Laeger</i> 163(21):2935–40. | Searches                           | Danish publication of the STORM trial (see James 2000).   |
| Vargas R, McMahon FG, Jain AK (1994)<br>Effects of Sibutramine (S) vs Placebo (P) in<br>NIDDM. <i>Clinical Pharmacology and</i><br><i>Theraputics</i> 55:188.   | Submitted evidence                 | Not 52-week follow-up (adults).   |
| Vlassov VV (2005) Weight reduction for reducing mortality in obesity and overweight. Cochrane collaboration. Anonymous. Online.   | Searches                           | Cochrane protocol only.   |
| Warren E, Brennan A, Akehurst R (2004) Cost-effectiveness of sibutramine in the treatment of obesity. <i>Medical Decision Making</i> 24(1):9–19.  | Searches,<br>submitted<br>evidence | Economic evaluation – used to cross reference clinical effectiveness. Two trials to be scanned (James 2000; Smith 2001) |
| Weintraub M, Rubio A, Golik A, Byrne L, Scheinbaum ML (1991) Sibutramine in weight control: a dose-ranging, efficacy study. <i>Clinical Pharmacology and Therapeutics</i> 50(3):330–7.                              | Submitted evidence                 | Not 52-week follow-up (adults).   |
| Wirth A, Krause J (2001) Long-term weight loss with sibutramine: a randomized controlled trial. <i>Journal of the American Medical Association</i> 11:1331–9.   | Searches                           | Not 52-week follow-up (adults).   |
| Yanovski JA, Yanovski SZ (2003) Treatment of pediatric and adolescent obesity. <i>Journal of the American Medical Association</i> 14:1851–3.  | Searches                           | Editorial on Berkowitz. Used for discussion and limitations.  |
| Zannad F, Gille B, Grentzinger A et al. (2002) Effects of sibutramine on ventricular dimensions and heart valves in obese patients during weight reduction. <i>American Heart Journal</i> 144(3):508–515.           | Submitted evidence                 | Not 52-week follow-up (adults).   |

## 1.7 Surgical interventions

| Study   | Source             | Reason for exclusion                                     |
|---|--------------------|--|
| American Diabetes Association Position Statement, 2002.   | Searches           | Position statement. No additional references.            |
| American Gastroenterological Association Guidelines, 2002.  | Searches           | Guideline recommendations. No additional references.     |
| Agren G, Naslund I. (1989) A prospective randomized comparison of vertical banded gastroplasty (VBG), loop gastric bypass (GBY) and gastric banding (GB). <i>International Journal of Obesity</i> 13:595.                     | CR                 | RCT of vertical banded gastroplasty (VBG).               |
| Allgood P (2001) Surgical interventions for morbid obesity. STEER Reports. Online.  | Searches           | Rapid, systematic review.<br>No additional references.   |
| Andersen T, Backer OG, Astrup A, Quaade F (1987) Horizontal or vertical banded gastroplasty after pretreatment with very-low-calorie formula diet: a randomized trial. <i>International Journal of Obesity</i> 11(3):295–304. | Clegg TA           | RCT comparing horizontal and vertical gastric banding.   |
| Angus LDG, Cottam DR, Gorecki PJ, Mourello R, Ortega RE, Adamski J (2003) DRG, costs and reimbursement following Roux-en-y gastric bypass: an economic appraisal. <i>Obesity Surgery</i> 000:000. [115]                       | Searches           | Retrospective study. Some health economic data.          |
| Anonymous (2005) Surgical treatment for morbid obesity. <i>Evidence Based Practice</i> 8(2):1–2.  | Searches           | Commentary on Buchwald review. No additional references. |
| Anonymous (2004) Study finds large cost variation for laparoscopic gastric bypass. <i>OR Manager</i> 20(7):1. [33]  | Searches           | Benchmarking study.<br>Some health economic data.        |
| Anonymous (2004) AORN bariatric surgery guideline. <i>AORN Journal</i> 79(5):1026–52.   | Searches           | Guideline recommendations. No additional references.     |
| Ashy AR, Merdad AA (1998) A prospective study comparing vertical banded gastroplasty versus laparoscopic adjustable gastric banding in the treatment of morbid and super-obesity. <i>International Surgery</i> 83(2):108–110. | Buchwald<br>review | Excluded from Clegg TA as not RCT.                       |
| Barrow C (2002) Roux-en-Y gastric bypass for morbid obesity. Surgical option in bariatric surgery in the treatment of obesity. <i>AORN Journal</i> 76(4):593–604.   | Searches           | Narrative review. No additional references.              |

| Study  | Source   | Reason for exclusion  |
|--|----------|---|
| Basque Office for Health Technology Assessment and Health Department (2003) Bariatric surgery for the treatment of morbid obesity – Systematic review. Online.   | Searches | Systematic review. No additional references.  |
| Blanco-Engert R, Weiner S, Pomhoff I, Matkowitz R, Weiner RA (2003) Outcome after laparoscopic adjustable gastric banding, using the Lap-Band and the Heliogast band: a prospective randomized study. <i>Obesity Surgery</i> 13(5):776–9. [39] | Searches | Compares two different types of bands (Lap-Band vs. Heliogast), not different surgical techniques. Checked for published Blanco-Engert references (abstract only cited). No references found. |
| Buchwald H, Avidor Y, Braunwald E et al. (2004) Bariatric surgery: A systematic review and meta-analysis. <i>Journal of the American Medical Association</i> 292(14):13.   | Searches | Systematic review and<br>meta-analysis. Used for<br>cross-referencing and<br>comparison. Added<br>Mingrone 2002 for<br>assessment.  |
| Canadian Coordinating Office for Health Technology Assessment (2003) Laparoscopic adjustable gastric banding for clinically severe obesity. CCOHTA. [95]   | Searches | Scoping search for HTA No additional references.  |
| Comite d'Evaluation et de Diffusion des Innovations<br>Technologiques (CEDIT) (2004) Laparoscopic adjustable gastric<br>banding – systematic review, expert panel (project). HTA. [97]   | Searches | Recommendations only, full text only available in French. No references.  |
| Chapman AE, Kiroff G, Game P et al. (2004) Adjustable gastric banding in the treatment of obesity: A systematic literature review. <i>Surgery</i> 135:326–51.  | Searches | Systematic review. No additional references.  |
| Chen J, McGregor M (2004) The gastric banding procedure: an evaluation. Online.  | Searches | Technology assessment.<br>No additional references.<br>Some health economic<br>data.  |
| Choban PS, Flancbaum L (2002) The effect of Roux limb lengths on outcome after Roux-en-Y gastric bypass: a prospective, randomized clinical trial. <i>Obesity Surgery</i> 12(4):540–5. [70]  | Searches | RCT of different Roux<br>limb lengths on weight<br>loss. Not a comparison of<br>different surgical<br>procedures.   |
| Cegaina V (2002) Erratum: Gastric pacing as therapy for morbid obesity: Preliminary results ( <i>Obesity Surgery</i> 2002;12[Suppl 1]:14S). <i>Obesity Surgery</i> 12(3):  | Searches | Report of gastric pacing.   |
| Clegg A, Colquitt J, Sidhu M, Royle P, Walker A (2003) Clinical and cost effectiveness of surgery for morbid obesity: a systematic review and economic evaluation. <i>International Journal of Obesity</i> .                                   | Searches | Published version of technology assessment evidence review.   |

| Study   | Source   | Reason for exclusion   |
|---|----------|--|
| Cooney RN, Bryant P, Haluck R, Rodgers M, Lowery M (2001) The impact of a clinical pathway for gastric bypass surgery on resource utilization. <i>Journal of Surgical Research</i>  | Searches | Not RCT of surgery. No additional references. Some health economic data.             |
| Cooney RN, Haluck RS, Ku J et al. (2003) Analysis of cost outliers after gastric bypass surgery: What can we learn? <i>Obesity Surgery</i>  | Searches | Not RCT of surgery. No additional references. Some health economic data.             |
| Cottam DR, Schaefer PA, Shaftan GW, Velcu L, Angus LDG (2002) Effect of surgically-induced weight loss on leukocyte indicators of chronic inflammation in morbid obesity. <i>Obesity Surgery</i> 12(3):   | Searches | Not RCT. No additional references.   |
| Craig BM, Tseng DS (2002) Cost-effectiveness of gastric bypass for severe obesity (Provisional record). [delete?] <i>American Journal of Medicine</i>   | Searches | Cost-effectiveness study.  |
| Danish Obesity Project (1979) Randomised trial of jejunoileal bypass versus medical treatment in morbid obesity. The Danish Obesity Project. <i>Lancet</i> 2(8155):1255–8.  | Clegg TA | Excluded as surgical procedure was jejunoileal bypass, which is no longer performed. |
| Davila-Cervantes A, Borunda D, Dominguez-Cherit G et al. (2002) Open versus laparoscopic vertical banded gastroplasty: a randomized controlled double blind trial. <i>Obesity Surgery</i> 12(6):812–8. [61]   | Searches | RCT of laparoscopic vs. open VBG.  |
| DeMaria EJ, Schweitzer MA, Kellum JM, Meador J, Wolfe L, Sugerman HJ (2002) Hand-assisted laparoscopic gastric bypass does not improve outcome and increases costs when compared to open gastric bypass for the surgical treatment of obesity (DARE structured abstract). Surgical Endoscopy and Other Interventional Techniques 16:1452–5. | Searches | Not RCT No additional references. Some cost data.                                    |
| Deveney CW, MacCabee D, Marlink K, Welker K, Davis J, McConnell DB (2004) Roux-en-Y divided gastric bypass results in the same weight loss as duodenal switch for morbid obesity. <i>American Journal of Surgery</i> 187(5):.   | Searches | Not RCT. No additional references.   |
| Fernandez AZ Jr, DeMaria EJ, Tichansky DS et al. (2004) Multivariate analysis of risk factors for death following gastric bypass for treatment of morbid obesity. <i>Annals of Surgery</i> 239(5):698–702.  | Searches | No weight outcomes.  |
| Flodmark E-C, Lissau I, Moreno LA, Pietrobelli A, Widhalm K. New insights into the field of children and adolescents' obesity: The European perspective. <i>International Journal of Obesity</i> 28(10):  | Searches | Narrative review on children and adolescents.  |

| Study   | Source   | Reason for exclusion  |
|---|----------|---|
| Gallagher SF, Banasiak M, Gonzalvo JP et al. (2003) The impact of bariatric surgery on the veterans administration healthcare system: A cost analysis. <i>Obesity Surgery</i> 13(2):245–8. [122]  | Searches | Cost analysis using retrospective data, not RCT.                              |
| Gonzalez R, Lin E, Venkatesh KR, Bowers SP, Smith CD (2003) Gastrojejunostomy during laparoscopic gastric bypass: analysis of 3 techniques (Provisional record). <i>Archives of Surgery</i>   | Searches | Not RCT. Added Nguyen 2001 for assessment.                                    |
| Greenberg I, Perna F, Kaplan M, Sullivan MA (2005) Behavioral and psychological factors in the assessment and treatment of obesity surgery patients. <i>Obesity Research</i> 13(2):244–9.   | Searches | Recommendations on assessment for surgery.                                    |
| Hell E, Miller KA, Moorehead MK, Norman S (2000) Evaluation of health status and quality of life after bariatric surgery: comparison of standard Roux-en-Y gastric bypass, vertical banded gastroplasty and laparoscopic adjustable silicone gastric banding. <i>Obesity Surgery</i> 10(3):214–9. | TEC 2005 | Case series with <150 participants.   |
| Health Technology Board for Scotland (HTBS) (2002) The use of surgery for the morbidly obese. 2002. [111]   | Searches | Comments on NICE guidance, not new reviews. Comments on surgery not reported. |
| Horgan S, Holterman MJ, Jacobsen GR et al. (2005) Laparoscopic adjustable gastric banding for the treatment of adolescent morbid obesity in the United States: A safe alternative to gastric bypass. <i>Journal of Pediatric Surgery</i> 40(1):   | Searches | Not adults.   |
| Inge TH, Garcia V, Daniels S et al. (2004) Multidisciplinary approach to the adolescent bariatric surgical patient. <i>Journal of Pediatric Surgery</i> 39(3):  | Searches | Not adults.   |
| Kaur H, Hyder ML, WS Poston C (2003) Childhood overweight: an expanding problem. <i>Treatments in Endocrinology</i> 2(6):.  | Searches | Not adults.   |
| Lee WJ, Huang MT, Wang W, Lin CM, Chen TC, Lai IR (2004) Effects of obesity surgery on the metabolic syndrome. <i>Archives of Surgery</i> 139(10):1088–92.  | Searches | Not RCT. No additional references.  |
| Malaysian Health Technology Assessment Unit (MHTAU) (2004) Management of obesity in childhood. Online.  | Searches | Not adults.   |
| Mathus-Vliegen EM, Tygat GN (2002) Gastro-oesophageal reflux in obese subjects: influence of overweight, weight loss and chronic gastric balloon distension. <i>Scandinavian Journal of Gastroenterology</i> 37(11):1246–52. [59]   | Searches | RCT of gastric balloons.  |

| Study   | Source   | Reason for exclusion  |
|---|----------|---|
| Mathus-Vliegen EM, van Weeren M, van Eerten PV (2003) Loss of function and obesity: the impact of untreated obesity, weight loss, chronic gastric balloon distension. <i>Digestion</i> 68(2/3):161–8. [37].                             | Searches | RCT of gastric balloons.  |
| MSAC Medical Services Advisory Committee (2003)<br>Laparoscopic adjustable gastric banding for morbid obesity.<br>Online. http://www.msac.gov.au/pdfs/reports/msacref14.pdf   | Searches | Evidence review. Checked Weiner 2001 for assessment.                        |
| Muscelli E, Mingrone G, Camastra S et al. (2005) Effect of weight loss on insulin resistance in surgically treated obese patients. <i>American Journal of Medicine</i> 118(1):  | Searches | Not RCT. No additional references.  |
| Nguyen NT, Lee SL, Goldman C et al. (2001) Comparison of pulmonary function and postoperative pain after laparoscopic versus open gastric bypass: a randomized trial. <i>Journal of the American College of Surgery</i> 192(4):469–76.  | Searches | Not 12-month follow-up.<br>No weight outcomes. No<br>additional references. |
| Nguyen NT, Ho HS, Fleming NW et al. (2002) Cardiac function during laparoscopic vs open gastric bypass: A randomized comparison. <i>Surgical Endoscopy</i> 16(1):78–83. [52]  | Searches | Not 12-month follow-up.<br>No weight outcomes. No<br>additional references. |
| Nguyen NT, Braley S, Fleming NW, Lambourne L, Rivers R, Wolfe BM (2003) Comparison of postoperative hepatic function after laparoscopic versus open gastric bypass. <i>American Journal of Surgery</i> 186(1):40–44. [26]               | Searches | Not 12-month follow-up.<br>No weight outcomes. No<br>additional references. |
| Nguyen NT, Cronan M, Braley S, Rivers R, Wolfe BM (2003) Duplex ultrasound assessment of femoral venous flow during laparoscopic and open gastric bypass. <i>Surgical Endoscopy</i> 17(2):285–90. [29]                                  | Searches | Not 12-month follow-up.<br>No weight outcomes. No<br>additional references. |
| Nilsell K, Thorne A, Sjostedt S, Apelman J, Pettersson N (2001) Prospective randomised comparison of adjustable gastric banding and vertical banded gastroplasty for morbid obesity. <i>European Journal of Surgery</i> 167(7):504–509. | Clegg TA | RCT of adjustable vs.<br>VBG  |
| Norris SL, Zhang X, Avenell A et al. (2005) Long-term non-pharmacologic weight loss interventions for adults with type 2 diabetes. <i>The Cochrane Database of Systematic Reviews</i> , Issue 2. John Wiley & Sons, Ltd: Chichester.    | Searches | Surgical interventions excluded from review.                                |
| Pereira JA, Claro BM, Pareja JC et al. (2003) Restored insulin inhibition on insulin secretion in nondiabetic severely obese patients after weight loss induced by bariatric surgery. <i>International Journal of Obesity</i> 27(4):1.  | Searches | Not RCT. No additional references.  |

| Study  | Source             | Reason for exclusion   |
|--|--------------------|--|
| Ponson AE, Janssen CIM, Klinkenbijl GJH (2002) Laparoscopic adjustable gastric banding: A prospective comparison of two commonly used bands. <i>Obesity Surgery</i> 12(4):                                   | Searches           | Compares two different<br>types of bands (Swedish<br>Adjustable Gastric Band<br>vs. Lap-Band), not<br>different surgical<br>techniques. No additional<br>references. |
| Potteiger CE, Paragi PR, Inverso NA et al. (2004) Bariatric surgery: Shedding the monetary weight of prescription costs in the managed care arena. <i>Obesity Surgery</i>                                    | Searches           | Not RCT, Some cost data.   |
| Sabbioni M-EE (2002) Intermediate results of health related quality of life after vertical banded gastroplasty. <i>International Journal of Obesity and Related Metabolic Disorders</i> 26(2):277–80. [21]   | Searches           | Not RCT, no additional references.   |
| Sjostrom CD, Peltonen M, Wedel H, Sjostrom L (2000) Differentiated long-term effects of intentional weight loss on diabetes and hypertension. <i>Hypertension</i> 36(1):20–5.                                | Submitted evidence | Review, mainly of<br>Swedish Obese Subjects<br>(SOS) study.  |
| Smith SC, Edwards CB, Goodman GN, Halversen RC, Simper SC (2004) Open vs laparoscopic Roux-en-Y gastric bypass: comparison of operative morbidity and mortality. <i>Obesity Surgery</i> 14(1):73–6.          | Searches           | Weight outcomes only at 6, 12 months, not at minimum 24 months as required.  |
| Stanford A, Glascock JM, Eid GM (2003) Laparoscopic Roux-En-Y gastric bypass in morbidly obese adolescents. <i>Journal of Pediatric Surgery</i> 38(3):1.   | Searches           | Not adults.  |
| Stoeckli R, Chanda R, Langer I, Keller U (2004) Changes of body weight and plasma ghrelin levels after gastric banding and gastric bypass. <i>Obesity Research</i> 12(2):346–50.                             | CR 2005            | Cohort study <150 participants   |
| Strauss RS, Bradley LJ, Brolin RE (2001) Gastric bypass surgery in adolescents with morbid obesity. <i>Journal of Pediatrics</i> 138(4):499–504. [150]   | Searches           | Not adults.  |
| Strauss RS (2002) Gastric bypass surgery in adolescents with morbid obesity. <i>Nutrition in Clinical Practice</i> 17(1):43. [134]   | Searches           | Not adults.  |
| Suter M, Giusti V, Worreth M, Heraief E, Calmes J-M (2005) Laparoscopic gastric banding: A prospective, randomized study comparing the Lapband and the SAGB: Early results. <i>Annals of Surgery</i> 241(1): | Searches           | Compares two different<br>types of bands (Swedish<br>Adjustable Gastric Band<br>vs. Lap-Band), not<br>different surgical<br>techniques. No additional<br>references. |

| Study   | Source   | Reason for exclusion   |
|---|--|--|
| Swedish Council on Technology Assessment in Health Care (SBU) (2004) Gastric pacing (gastric electrical stimulation) for the treatment of obesity – early assessment briefs (Alert). Online.  | Searches   | Gastric pacing review.   |
| Thorne A, Lonnqvist F, Apelman J, Hellers G, Arner P (2002) A pilot study of long-term effects of a novel obesity treatment: omentectomy in connection with adjustable gastric banding. <i>International Journal of Obesity and Related Metabolic Disorders</i> 26(2):193–9. [48] | Searches   | Compares adjustable gastric banding with or without omentectomy. |
| Tolonen P, Victorzon M (2003) Quality of life following laparoscopic adjustable gastric banding – The Swedish Band and the Moorehead–Ardelt questionnaire. <i>Obesity Surgery</i> 13(3):1.  | Searches   | Not RCT. No additional references.                               |
| VATAP Bariatric surgery: summary of INAHTA reviews (2005) Online.   | Searches   | Evidence review. No additional references.                       |
| Vlassov VV (2005) Weight reduction for reducing mortality in obesity and overweight. Cochrane collaboration. Online.  | Searches   | Protocol only.   |
| von Mach MA, Stoeckli R, Bilz S, Kraenzlin M, Langer I, Keller U (2004) Changes in bone mineral content after surgical treatment of morbid obesity. <i>Metabolism: Clinical and Experimental</i> 53(7):918–21.  | CR 2005  | Cohort study <150 participants.                                  |
| Weiner R, Bockhorn H, Rosenthal R, Wagner D (2001) A prospective randomized trial of different laparoscopic gastric banding techniques for morbid obesity. <i>Surgical Endoscopy</i> 15(1):63–8.  | Medical<br>Services<br>Advisory<br>Committee<br>(MSAC) | Excluded from Clegg TA.  |
| Weiss HG, Nehoda H, Labeck B et al. (2002) Adjustable gastric and esophagogastric banding: a randomized clinical trial. <i>Obesity Surgery</i> 12(4):573–8. [49]  | Searches   | Gastric banding vs. oesophagogastric banding.                    |
| Widhalm K, Dietrich S, Prager G (2004) Adjustable gastric banding surgery in morbidly obese adolescents: Experiences with eight patients. <i>International Journal of Obesity</i> 28(Suppl 3):  | Searches   | Not adults.  |
| Zengin K, Taskin M, Sakoglu N, Salihoglu Z, Demiroluk S, Uzun H (2002) Systemic inflammatory response after laparoscopic and open application of adjustable banding for morbidly obese patients. <i>Obesity Surgery</i> 12(2):  | Searches   | No mention of randomisation. No additional references.           |
| Zoss I, Piec G, Horber FF (2005) Impact of orlistat therapy on weight reduction in morbidly obese patients after implantation of the Swedish adjustable gastric band. <i>Obesity Surgery</i> 12   | Searches   | Not RCT. No additional references.                               |

### 1.7.1 Open and laparoscopic gastric bypass single arm studies

| Study   | Reason for exclusion                                 |
|---|--|
| Arteaga JR, Huerta S, Livingston EH (2002) Management of gastrojejunal anastomotic leaks after Roux-en-Y gastric bypass. <i>American Surgeon</i> 68(12):1061–5.   | Weight loss not reported.                            |
| Brolin RE, Bradley LJ, Wilson AC, Cody RP (2000) Lipid risk profile and weight stability after gastric restrictive operations for morbid obesity. <i>Journal of Gastrointestinal Surgery</i> 4(5):464–9.      | Outcomes not reported by type of surgery.            |
| Carrasquilla C, English WJ, Esposito P, Gianos J (2004) Total stapled, total intra-<br>abdominal (TSTI) laparoscopic Roux-en-Y gastric bypass: one leak in 1000 cases.<br><i>Obesity Surgery</i> 14(5):613–7. | Not 24-months follow-up.                             |
| Demaria EJ, Sugerman HJ, Kellum JM, Meador JG, Wolfe LG (2002) Results of 281 consecutive total laparoscopic Roux-en-Y gastric bypasses to treat morbid obesity. <i>Annals of Surgery</i> 235(5):640–45.      | Not 24-months follow-up.                             |
| Faintuch J, Matsuda M, Cruz ME (2004). Severe protein–calorie malnutrition after bariatric procedures. <i>Obesity Surgery</i> 14(2):175–81.   | Not 150 participants.                                |
| Fernandez AZ Jr, DeMaria EJ, Tichansky DS et al. (2004) Multivariate analysis of risk factors for death following gastric bypass for treatment of morbid obesity. <i>Annals of Surgery</i> 239(5):698.        | Laparoscopic vs. open study.                         |
| Frezza EE, Ikramuddin S, Gourash W et al. (2002) Symptomatic improvement in gastroesophageal reflux disease (GORD) following laparoscopic Roux-en-Y gastric bypass. <i>Surgical Endoscopy</i> 16(7):1027–31.  | Laparoscopic gastic bypass, not 24-months follow-up. |
| Hedenbro JL, Frederiksen SG (2002) Fully stapled gastric bypass with isolated pouch and terminal anastomosis: 1–3 year results. <i>Obesity Surgery</i> 12(4):546–50.  | Not standard Roux-en-Y gastic bypass.                |
| Jones KB Jr (1998) Roux-en-Y gastric bypass: an effective antireflux procedure in the less than morbidly obese. <i>Obesity Surgery</i> 8(1):35–8.   | Not 150 participants.                                |
| MacLean LD, Rhode BM, Nohr CW (2000) Late outcome of isolated gastric bypass. <i>Annals of Surgery</i> 231(4):524–8.  | Not standard Roux-en-Y gastic bypass.                |
| Murphy K, McCracken JD, Ozment KL (1980) Gastric bypass for obesity. Results of a community hospital series. <i>American Journal of Surgery</i> 140(6):747–50.  | Only 47 patients had Roux-en-Y gastic bypass.        |
| Obeid F, Falvo A, Dabideen H, Stocks J, Moore M, Wright M (2005) Open Rouxen-Y gastric bypass in 925 patients without mortality. <i>American Journal of Surgery</i> 189(3):352–6.                             | Not 24 months follow-up.                             |
| Parikh MS, Shen R, Weiner M, Siegel N, Ren CJ (2005) Laparoscopic bariatric surgery in super-obese patients (BMI>50) is safe and effective: a review of 332 patients. <i>Obesity Surgery</i> 15(6):858–63.    | Not 150 patients for laparoscopic gastic bypass.     |

| Study  | Reason for exclusion  |
|--|---|
| Raftopoulos I, Ercole J, Udekwu AO, Luketich JD, Courcoulas AP (2005)<br>Outcomes of Roux-en-Y gastric bypass stratified by a body mass index of 70 kg/m <sup>2</sup> : a comparative analysis of 825 procedures. <i>Journal of Gastrointestinal Surgery</i> 9(1):44–52. | Compared open <i>and</i> laparoscopic procedures in people who were severely obese or superobese. |
| Raftopoulos Y, Gatti GG, Luketich JD, Courcoulas AP (2005) Advanced age and sex as predictors of adverse outcomes following gastric bypass surgery. <i>Journal of the Society of Laparoendoscopic Surgeons</i> 9(3):272–6.   | Weight loss not reported.   |
| Smith SC, Edwards CB, Goodman GN (1997) Symptomatic and clinical improvement in morbidly obese patients with gastroesophageal reflux disease following Roux-en-Y gastric bypass. <i>Obesity Surgery</i> 7(6):479–84.   | Weight loss not reported for gastric bypass group alone.  |
| Smith SC, Edwards CB, Goodman GN, Halversen RC, Simper SC (2004) Open vs laparoscopic Roux-en-Y gastric bypass: comparison of operative morbidity and mortality. <i>Obesity Surgery</i> 14(1):73–6.  | Open vs. laparoscopic.  |
| Warde-Kamar J, Rogers M, Flancbaum L, Laferrere B (2004) Calorie intake and meal patterns up to 4 years after Roux-en-Y gastric bypass surgery. <i>Obesity Surgery</i> 14(8):1070–9.   | Excluded as only 69 participants out of 360 invited.  |

## 1.8 Interventions in a UK clinical setting

| Study   | Source                     | Reason for exclusion   |
|---|----------------------------|--|
| Mhurchu CN, Margetts BM, Speller V (1998) Randomized clinical trial comparing the effectiveness of two dietary interventions for patients with hyperlipidaemia. <i>Clinical Science</i> 95(4): 479–87.                                  | Searches                   | No requirement to be overweight or obese. Baseline BMI <28 kg/m <sup>2</sup> .             |
| Barrett P, Finer N, Fisher C, Boyle G (1999) Evaluation of a multimodality treatment programme for weight management at the Luton and Dunstable Hospital NHS Trust. <i>Journal of Human Nutrition and Dietetics</i> 12(Suppl 1): 43–52. | Searches                   | No control group.  |
| Bowerman S (2001  | Non-<br>clinical<br>review | Non-UK study.  |
| Cadman L, Wiles R (1996) Short report. Nutrition advice in primary care: evaluation of practice nurse nutrition training programmes. <i>Journal of Human Nutrition and Dietetics</i> 9(2):147–56.                                       | Searches                   | No control group.  |
| Collins et al. 1999   | Searches                   | All parameters for inclusion were met, except the presence of control or comparison group. |

| Study  | Source   | Reason for exclusion   |
|--|----------|--|
| Cooper CA, de Looy AE, Conry MA (1979) Efficiency of energy-reduced diets in the treatment of obesity by dietitians. <i>Proceedings of the Nutrition Society</i> 38(1):7A.   | Searches | No control group.  |
| Deforche B, Bourdeaudhuij ID, Tanghe A, Hills AP, Bode PD (2004) Changes in physical activity and psychosocial determinants of physical activity in children and adolescents treated for obesity. <i>Patient Education and Counseling</i> 55(3):407–415. | Searches | All parameters for inclusion were met, except the presence of control or comparison group.                   |
| Drummond S, Kirk T (1998) The effect of different types of dietary advice on body composition in a group of Scottish men. <i>Journal of Human Nutrition and Dietetics</i> 11(6):473–85.  | Searches | Normal to moderately overweight men only. Baseline BMI <28 kg/m <sup>2</sup> .                               |
| Drummond S (2000) Obesity in primary care. <i>Primary Health Care</i> 10(5):43–9.  | Searches | Narrative review.  |
| Drummond S, Dixon K, Griffin J, De Looy A (2004)Weight loss on an energy-restricted, low-fat, sugar-containing diet in overweight sedentary men. <i>International Journal of Food Science and Nutrition</i> 55(4):279–90.                                | Searches | No control group.  |
| Eley Morris S, Lean MEJ, Hankey CR, Hunter C (1999) Who gets what treatment for obesity? A survey of GPs in Scotland. <i>European Journal of Clinical Nutrition</i> 53(2):S44–8.   | Searches | Survey.  |
| Elgar FJ, Roberts C, Moore L, Tudor-Smith C (2005) Behaviour, physical activity and weight problems in adolescents in Wales. <i>Public Health</i> 119(6):518–24.   | Searches | Cohort study, also all parameters for inclusion were met, except the presence of control or comparison group |
| Fletcher AM (1982) The nutritionist as the primary care provider in a team approach to obesity. <i>Journal of the American Dietetic Association</i> 80(3):253–5.   | Searches | Non-UK descriptive paper.  |
| Foster A, Brereton P, Foster A, Brereton P (1978) Professional flab fighting at district level. <i>Health and Social Service Journal</i> 88(4621):1416–7.  | Searches | No control group.  |
| Frühbeck G, Diez CA, Gómez AJ, Cienfuegos J (2003)<br>Management of overweight and obese adults: Comment. <i>British Medical Journal</i> 326(7380):102–3.  | Searches | Not study report (letter).   |
| Fuller TL, Milburn K Backet, Hopton JL (2003) Healthy eating: the views of general practitioners and patients in Scotland. <i>American Journal of Clinical Nutrition</i> 77(4)(Suppl):S1043–7.   | Searches | Qualitative study.   |

| Study  | Source   | Reason for exclusion  |
|--|----------|---|
| Garrow J (1976) Obesity clinic. 1. Who works there and why. <i>Nursing Times</i> 72(2):78–9.   | Searches | No control group.   |
| Garrow J (1976) Obesity clinic. 2. Treatment of refractory patients. <i>Nursing Times</i> 72(3):116–7.   |          |   |
| Green SM, Passway TJ (1998) Focus on nutrition. Management of obesity in the primary care setting. <i>British Journal of Community Nursing</i> 3(5):244–9.   | Searches | Narrative review.   |
| Green SM, McCoubrie M, Cullingham C (2000) Practice nurses' and health visitors' knowledge of obesity assessment and management. <i>Journal of Human Nutrition and Dietetics</i> 13(6):413–23.   | Searches | Survey.   |
| Grignard S, Pierre B Jean, Michel B, Philippe M, Chantal V (2003) Characteristics of adolescent attempts to manage overweight. <i>Patient Education and Counseling</i> 51)2):183–9.  | Searches | Cohort study, also all parameters for inclusion were met, except the presence of control or comparison group. |
| Hankey CR, Rumley A, Lowe G-DO, Woodward M, Lean MEJ (1997) Moderate weight reduction improves red cell aggregation and factor VII activity in overweight subjects. <i>International Journal of Obesity</i> 21(8):644–50.                  | Searches | No control group.   |
| Hankey CR (2002) Weight change after myocardial infarction: Statistical perspectives for future study. <i>Journal of Human Nutrition and Dietetics</i> 15(6):439–44,   | Searches | See Leslie WS, 2004   |
| Hankey CR, Eley S, Leslie WS, Hunter CM, Lean MEJ (2004) Eating habits, beliefs, attitudes and knowledge among health professionals regarding the links between obesity, nutrition and health. <i>Public Health Nutrition</i> 7(2):337–43. | Searches | Survey.   |
| Harland J, White M, Drinkwater C, Chinn D, Farr L, Howel D (1999) The Newcastle exercise project: A randomised controlled trial of methods to promote physical activity in primary care. <i>British Medical Journal</i> 319(7213): 828–32. | Searches | No requirement for participants to be overweight or obese. No weight outcomes reported.                       |
| Harland P-SE, Watson MJ, Ashworth L (1997) The effect of metabolic programming on atherosclerosis and obesity risk factors in UK adolescents living in poor socioeconomic areas. <i>Annals of the NY Academy of Sciences</i> 817:361–4.    | Searches | Study to determine associations between metabolic consequences and birth weight.                              |
| Harvey EL, Summerbell CD, Kirk SF et al. (2002) Dietitians' views of overweight and obese people and reported management practices. <i>Journal of Human Nutrition and Dietetics</i> 15(5):331–47.  | Searches | Survey.   |

| Study   | Source                     | Reason for exclusion   |
|---|----------------------------|--|
| Hillsdon M, Thorogood M, White I, Foster C (2002) Advising people to take more exercise is ineffective: A randomized controlled trial of physical activity promotion in primary care. <i>International Journal of Epidemiology</i> 31(4):808–815. | Non-<br>clinical<br>review | No baseline BMI reported and no requirement to be overweight or obese.         |
| Hudson A (2004) Fighting fat: who slims wins. <i>Primary Health Care</i> 14(3):12–4.  | Searches                   | No control group. Report of counterweight.                                     |
| Hughes J, Todorovic V, Kemp H (1999) 'The Sugar Buddies': An intervention programme for 'obese' patients with poorly controlled diabetes. <i>Journal of Human Nutrition and Dietetics</i> 12(Suppl 1):71–8.                                       | Searches                   | No control group.  |
| Hughes J, Martin S (1999) The Department of Health's project to evaluate weight management services. <i>Journal of Human Nutrition and Dietetics</i> 12(Suppl 1):1–8.   | Searches                   | Report of Department of Health survey.   |
| Jayagopal V, Kilpatrick ES, Holding S, Jennings PE, Atkin SL (2005) Orlistat is as beneficial as metformin in the treatment of polycystic ovarian syndrome. <i>Journal of Clinical Endocrinology and Metabolism</i> 90(2):729–33.                 | Searches                   | Compared orlistat and metformin for polycystic ovarian syndrome.               |
| Kenny C (2001) Primary care prevention of cardiovascular disease in diabetes. <i>Practical Diabetes International</i> 18(6):212–6.  | Searches                   | Narrative review.  |
| Keppie B, Lyon A (1999) Evaluation of weight management services provided by dietitians within a community trust. <i>Journal of Human Nutrition and Dietetics</i> 12(Supp 1): 53–60.  | Searches                   | No control group.  |
| King S, Gibney M (1999) Dietary advice to reduce fat intake is more successful when it does not restrict habitual eating patterns. <i>Journal of the American Dietetic Association</i> 99(6): 685–9.  | Searches                   | Conducted in Ireland, not UK   |
| Kirk SFL (2003)   | Searches                   | Not results of intervention, methods paper.                                    |
| Kirk T, Crombie N, Cursiter M (2000) Promotion of dietary carbohydrate as an approach to weight maintenance after initial weight loss: a pilot study. <i>Journal of Human Nutrition and Dietetics</i> 13(4):277–85.                               | Searches                   | No control group.  |
| Koliopoulos G, Wood PL, Papanikou E, Creatsas G (2005) Body mass index extremes in a British adolescent gynecology clinic. <i>Journal of Pediatric and Adolescent Gynecology</i> 18(3):163–6.   | Searches                   | Retrospective case-series.   |
| Lamb SE, Bartlett HP, Ashley A, Bird W (2002) Can lay-led walking programmes increase physical activity in middle aged adults? A randomised controlled trial. <i>Journal of Epidemiology and Community Health</i> 56(4): 246–52.                  | Searches                   | No requirement to be overweight or obese. Baseline BMI <28 kg/m <sup>2</sup> . |

| Study   | Source   | Reason for exclusion   |
|---|----------|--|
| Leslie WS, Lean MEJ, Baillie HM, Hankey CR (2002) Weight management: A comparison of existing dietary approaches in a work-site setting. <i>International Journal of Obesity</i> 26(11): 1469–75.   | Searches | In non-clinical review.  |
| Leslie WS, Hankey CR, Matthews D, Currall JEP, Lean MEJ (2004) A transferable programme of nutritional counselling for rehabilitation following myocardial infarction: A randomised controlled study. <i>European Journal of Clinical Nutrition</i> 58(5): 778–86). | Searches | No requirement to be overweight or obese. Baseline BMI <28 kg/m <sup>2</sup> . |
| Little P (1998) GP documentation of obesity: what does it achieve? <i>British Journal of General Practice</i> 48(426):890–4.  | Searches | No control group.  |
| Marshall D, McConkey R, Moore G (2003) Obesity in people with intellectual disabilities: the impact of nurse-led health screenings and health promotion activities. <i>Journal of Advanced Nursing</i> 41(2):147–53.  | Searches | No control group.  |
| Martell R (20040 Childhood obesity 'is everyone's problem'. <i>Physiotherapy Frontline</i> 10(12):23–5.   | Searches | Information brochure.  |
| Martin C, Woolf-May K (1999) The retrospective evaluation of a general practitioner exercise prescription programme. <i>Journal of Human Nutrition and Dietetics</i> 12(Suppl 1): 32–42.  | Searches | Not 12 weeks.  |
| Maryon-Davis A (2005) Weight management in primary care: how can it be made more effective? <i>Proceedings of the Nutrition Society</i> 64(1):97–103.   | Searches | Narrative review.  |
| McArdle S (2004) Running an obesity management clinic. <i>Practice Nurse</i> 27(10):38.   | Searches | Narrative review.  |
| Mercer SW, Tessier S, Mercer SW, Tessier S (2001) A qualitative study of general practitioners' and practice nurses' attitudes to obesity management in primary care. <i>Health Bulletin (Edinburgh)</i> 59(4):248–53.  | Searches | Survey.  |
| Munnelly P, Feehan S (2002) An obesity clinic model. <i>Proceedings</i> of the Nutrition Society 61(1):9–10.  | Searches | No control group.  |
| Murphy C, Simkins M, Helowicz R (1999) Diabetes exercise project. <i>Journal of Human Nutrition and Dietetics</i> 12(Suppl 1):79–90).   | Searches | Relevant to non-clinical review on people with co-morbidities.                 |
| Nupponen R, Laukkanen R (1998) How to develop a group curriculum: developing an exercise programme for overweight adults. <i>Patient Education and Counseling</i> 33(Suppl 1):S77–85.   | Searches | Non-UK study. No control group.  |

| Study  | Source   | Reason for exclusion  |
|--|----------|---|
| Ogden J, Bandara I, Cohen H et al. (2001) General practitioners' and patients' models of obesity: Whose problem is it? <i>Patient Education and Counseling</i> 44(3):227–33.   | Searches | Survey.   |
| Oldroyd JC, Unwin NC, White M, Imrie K, Mathers JC, Alberti KG (2001) Randomised controlled trial evaluating the effectiveness of behavioural interventions to modify cardiovascular risk factors in men and women with impaired glucose tolerance: outcomes at 6 months. <i>Diabetes Research and Clinical Practice</i> 52(1):29–4. | Searches | Focus on improving cardiovascular risk factors, not main aim of weight loss. No requirement for participants to be overweight, but mean BMI ≥28 kg/m <sup>2</sup> . |
| Owen TA (2004) Weight in Wales. Nutrition Bulletin 29(2):85–91.  | Searches | Survey.   |
| Pike H (2004) Welsh pharmacist tackling obesity with weight reduction support clinic. <i>Pharmaceutical Journal</i> 272(7292):383–87   | Searches | No control group.   |
| Pill R, Stott NCN, Rollnick SR, Rees M (1998) A randomized controlled trial of an intervention designed to improve the care given in general practice to Type II diabetic patients: Patient outcomes and professional ability to change behaviour. <i>Family Practice</i> 15(3): 229–35.   | Searches | No baseline BMI reported and no requirement to be overweight or obese.  |
| Prentice A (2004)  | Searches | No control group. Abstract only.  |
| Raaff CA (2005) A preliminary investigation into the use of multimedia to enhance dietetic management of overweight and obese children: multimedia design for child–dietitian consultations. <i>Nutrition Bulletin</i> 30(2):126–31.   | Searches | Appears to be case series.  |
| Rayner M, Ziebland S (1999) Process evaluation of a research workshop and follow-up support to help practitioners from 13 weight management projects to carry out evaluations. <i>Journal of Human Nutrition and Dietetics</i> 12(Supp 1): 9–19.   | Searches | Process evaluation of research workshop.  |
| Read S (2004)  | Searches | No control group.   |
| Reed B, Jackson J, Harborne J, Roberts R (1999) Study to evaluate the effect of dietary advice and the role of exercise in obese women who are trying to lose weight. <i>Journal of Human Nutrition and Dietetics</i> 12(Suppl 1):61–70.   | Searches | Not evaluation of defined intervention, but retrospective review of factors that influenced weight loss.  |
| Roberts A, Ashley G (1999) What are the characteristics of overweight and obese patients who achieve weight loss and what factors are most helpful? A quantitative and qualitative study of patients and interventions in a rural general practice. <i>Journal of Human Nutrition and Dietetics</i> 12(Suppl 1):20–27.               | Searches | Not evaluation of defined intervention, but retrospective review of factors that influenced weight loss.  |
| Rudolf MCJ, Sahota P (2004) WATCH IT. A community based approach for the treatment of childhood obesity: a pilot study. <i>International Journal of Obesity and Metabolic Disorders</i>  |          | Children  |

| Study   | Source             | Reason for exclusion   |
|---|--------------------|--|
| Sleath C (1999) Can clinically significant weight loss be achieved and sustained? An evaluation of a general practice based weight control clinic. <i>Journal of Human Nutrition and Dietetics</i> 12(Suppl 1): 28–31.  | Searches           | No control group.  |
| Stensel DJ (1994)   | Searches           | No requirement to be overweight or obese. Baseline BMI <28 kg/m <sup>2</sup> . |
| Stevens W, Hillsdon M, Thorogood M, McArdle D, Eaton CB (1998) Cost-effectiveness of a primary care based physical activity intervention in 45–74 year old men and women: A randomised controlled trial. <i>British Journal of Sports Medicine</i> 32(3): 236–41.                                     | Searches           | No weight outcomes. No requirement to be overweight or obese.                  |
| Taylor AH, Doust J, Webborn N (1998) Randomised controlled trial to examine the effects of a GP exercise referral programme in Hailsham, East Sussex, on modifiable coronary heart disease risk factors. <i>Journal of Epidemiology and Community Health</i> 52(9): 595–601.                          | Searches           | No requirement to be overweight or obese. Baseline BMI <28 kg/m <sup>2</sup> . |
| Tessier S, Morris SE, Lean ME (2000) The demand and supply of nutritional advice and guidance in Scottish family planning services. <i>British Journal of Family Planning</i> 26(2):97–99.  | Searches           | Survey.  |
| Thompson RL, Thomas DE (2000) A cross-sectional survey of the opinions on weight loss treatments of adult obese patients attending a dietetic clinic. <i>International Journal of Obesity and Related Metabolic Disorders</i> 24(2):164–70.   | Searches           | Survey.  |
| Tod AM, Lacey A (2004) Overweight and obesity: helping clients to take action. <i>British Journal of Community Nursing</i> 9(2):59–66.  | Searches           | Qualitative study.   |
| Treasure JL, Katzman M, Schmidt U, Troop N, Todd G, De Silva P (1999) Engagement and outcome in the treatment of bulimia nervosa: First phase of a sequential design comparing motivation enhancement therapy and cognitive behavioural therapy. <i>Behaviour Research and Therapy</i> 37(5): 405–18. | Dunn<br>review     | People with bulimia.   |
| Turner S (2005) Promoting healthy lifestyles for people with learning disabilities: a survey of provider organisations. <i>British Journal of Learning Disabilities</i> 24(4):138–44.   | Searches           | Survey.  |
| Viner R, Nicholls D, Viner R, Nicholls D (2005) Managing obesity in secondary care: a personal practice. <i>Archives of Disease in Childhood</i> 90(4):385–90.  | Searches           | Literature review/expert opinion.  |
| Watch it – An NHS Community Service for obese children.   | Submitted evidence | Information brochure. No experimental study was conducted.                     |

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| Study   | Source   | Reason for exclusion                            |
|---|----------|---|
| Wells MB, Turner S, Martin DM, Roy A (1997) Health gain through screening – coronary heart disease and stroke: developing primary health care services for people with intellectual disability. <i>Journal of Intellectual and Developmental Disabilities</i> 22(4):251–63. | Searches | Describes the results of a screening programme. |
| West JA, De Looy AE (2001) Weight loss in overweight subjects following low-sucrose or sucrose-containing diets. <i>International Journal of Obesity</i> 25(8):1122–8.  | Searches | Not 12 weeks.                                   |
| Williams J, Sultan M (1999) Evaluation of an Asian women's healthy eating and exercise group. <i>Journal of Human Nutrition and Dietetics</i> 12(Suppl 1):91–8).  | Searches | No control group.                               |

# 1.9 Barriers and attitudes to the management of overweight and obesity in the clinical setting

| Study   | Reason for exclusion                       |
|---|--|
| Adolfsson B et al (2002) Treating obesity: a qualitative evaluation of a lifestyle intervention for weight reduction. <i>Health Education Journal</i> 61:244–58.  | Not UK-based.                              |
| Andersen et al. (1998)  | Participants were not overweight or obese. |
| Banning M (2005) Obesity. The management of obesity: the role of the specialist nurse. <i>British Journal of Nursing</i> 14(3):139–44.  | Literature review.                         |
| Drummond S (2000) Address the weighty problem of obesity. <i>Practice Nurse</i> 20:146–9.   | Literature review.                         |
| Farooqi A, Nagra D, Edgar T, Khunti K (2000) Attitudes to lifestyle risk factors for coronary heart disease amongst South Asians in Leicester: a focus group study. <i>Family Practice</i> 17(4):293–7. | Not relevant to weight management.         |
| Fuller TL, Backett-Milburn K, Hopton JL (2003) Healthy eating: the views of general practitioners and patients in Scotland. <i>American Journal of Clinical Nutrition</i> 77(4 Suppl):S1043–7.          | Not relevant to weight management.         |
| Green (1998)  | Literature review.                         |
| Heyes T, Long S, Mathers N (2004) Preconception care: practice and beliefs of primary care workers. <i>Family Practice</i> 21(1):22–7.  | Not relevant to weight management.         |
| Hunt P, Pearson D (2001) Motivating change. <i>Nursing Standard</i> 16(2):45–52.  | Literature review.                         |

| Study   | Reason for exclusion   |
|---|--|
| Ingledew, Sullivan (2002)   | Adolescents were recruited in Germany.   |
| John J, Ziebland S (2004) Reported barriers to eating more fruit and vegetables before and after participation in a randomized controlled trial: a qualitative study. <i>Health Education Research</i> 19(2):165–74.  | Not relevant to weight management.   |
| John J, Yudkin P, Neil H (2003) Does Stage of Change predict outcome in a primary-care intervention to encourage an increase in fruit and vegetable consumption? <i>Health Education Research</i> 18(4):429–38.   | Not relevant to weight management.   |
| Lloyd et al. (1995)   | Included subjects that were overweight and subjects with normal weight, and no stratification of weight results was performed. |
| Nigg CR (1999) Stages of change across ten health risk behaviors for older adults. Gerontologist 39(4):473–82.  | Not UK-based.  |
| Prochaska JO (1994) Stages of change and decisional balance for 12 problem behaviors. <i>Health Psychology</i> 13:39–46.  | Not relevant to weight management.   |
| Salmon et al. Reducing sedentary behaviour and increasing physical activity among 10-year-old children: Overview and process evaluation of the 'Switch-Play' intervention. <i>Health Promotion International</i> 20:7–17.   | Not UK-based.  |
| Sutton K, Logue E, Jarjoura D, Baughman K, Smucker W, Capers C (2003) Assessing dietary and exercise stage of change to optimize weight loss interventions. <i>Obesity Research</i> 11(5):641–52.   | Not UK-based.  |
| Taylor et al. 2004  | Not UK-based   |
| Thompson RL, Thomas DE (2000) A cross-sectional survey of the opinions on weight loss treatments of adult obese patients attending a dietetic clinic. <i>International Journal of Obesity and Related Metabolic Disorders</i> 24(2):164–70.   | No barriers were reported in this study.   |
| Turner 1996   | Participants were not overweight or obese.   |
| Wallace PG, Brennan PJ, Haines AP (1987) Are general practitioners doing enough to promote healthy lifestyle? Findings of the Medical Research Council's general practice research framework study on lifestyle and health. <i>British Medical Journal (Clinical Research Ed.)</i> 294(6577):940–2. | Participants were not overweight.<br>Promotion of health lifestyle.  |
| Williams, Sultan  | Not relevant to clinical practice.   |

# 1.10 Effectiveness of brief interventions in primary care and other general clinical settings in improving outcomes for people who are overweight and obese

| Study  | Reason for exclusion   |
|--|--|
| Albright CL (2000) Incorporating physical activity advice into primary care: Physician- delivered advice within the Activity Counseling Trial. <i>American Journal of Preventive Medicine</i> vol 2000;Apr-234   | Participants were not obese/overweight.  |
| Ammerman AS, Keyserling TC, Atwood JR, Hosking JD, Zayed H, Krasny C (2003) A randomized controlled trial of a public health nurse directed treatment program for rural patients with high blood cholesterol. <i>Preventive Medicine</i> 36(3):340–51. | Not a brief intervention.  |
| Ammerman AS, Lindquist CH, Hersey J (2002) The efficacy of behavioral interventions to modify dietary fat and fruit and vegetable intake: A review of the evidence. <i>Preventive Medicine</i> 35:25–41.   | Not relevant.  |
| Ashley JM, St Jeor ST, Schrage JP et al. (2001) Weight control in the physician's office. <i>Archives of Internal Medicine</i> 161(13):1599–1604.  | Not relevant to KCQ.   |
| Beresford SA, Curry SJ, Kristal AR, Lazovich D, Feng Z, Wagner EHA (1997) Dietary intervention in primary care practice: the Eating Patterns Study. <i>American Journal of Public Health</i> 87:610–616.   | Aim other than to assess effectiveness of a brief intervention in weight loss/maintenance in obese/overweight individuals. |
| Black DR, Coe WC, Friesen JG, Wurzmann AG (1984) Minimal interventions for weight control: a cost-effective alternative. <i>Addictive Behavior</i> 9(3):279–85.  | Less than12-month study.   |
| Bull FC, Jamrozik K, Blanksby BA (1999) Tailored advice on exercise – Does it make a difference. <i>American Journal of Preventive Medicine</i> 16(3):230–9.   | BMI values were only reported at month 1.  |
| Burke BL (2004) The emerging evidence base for motivational interviewing: a meta-analytic and qualitative inquiry. <i>Journal of Cognitive Psychotherapy</i> (Special Issue: Motivational Interviewing: Theory, Research, and Practice)                | Narrative review.  |
| Conn Vicki, Valentine J, Cooper H (2002) Interventions to increase physical activity among aging adults: A meta-analysis. <i>Annals of Behavioral Medicine</i> 24(3): 190–200.   | Participants were not overweight/obese   |
| Dowell AC, Ocheran JJ, Hilton SR et al. (1996) Prevention in practice: Results of a 2-year follow-up of routine health promotion interventions in general practice. <i>Family Practice</i> 13(4):357–62.   | Also included participants that were not overweight or obese.  |
| Drummond S, Kirk T (1999) Assessment of advice to reduce dietary fat and non-milk extrinsic sugar in a free-living male population. <i>Public Health Nutrition</i> 2(2):187–97.  | Weight and BMI values were only reported at baseline.  |

Dubbert PM (2002) Physical activity and exercise: Recent advances and current challenges. *Journal of Consulting and Clinical Psychology* (Special Issue: Behavioral medicine and clinical health psychology).

Participants were not obese/overweight.

Dunn C, Deroo L, Rivara FP (2001) The use of brief interventions adapted from motivational interviewing across behavioral domains: A systematic review. *Addiction* 96:1770-2.

Not relevant systematic review. References checked.

Fulton JE, Garg M, Galuska DA, Rattay KT, Caspersen CJ (2004) Public health and clinical recommendations for physical activity and physical fitness: special focus on overweight youth. *Sports Medicine* 2004; 34(9):581–99.

Aim other than to assess effectiveness of a brief intervention in weight loss/maintenance in obese/overweight individuals.

Goldstein MG (2004) Multiple behavioral risk factor interventions in primary care: summary of research evidence. *American Journal of Preventive Medicine* (Special Issue: Addressing Multiple Behavioral Risk Factors in Primary Care).

Literature review. References checked.

Halbert JA, Silagy CA, Finucane PM, Withers RT, Hamdorf PA (2000) Physical activity and cardiovascular risk factors: Effect of advice from an exercise specialist in Australian general practice. *Medical Journal of Australia* 173(2):85–7.

Not relevant to KCQ.

Hebert JR, Ebbeling CB, Ockene IS et al. (1999) A dietitian-delivered group nutrition program leads to reductions in dietary fat, serum cholesterol, and body weight: the Worcester Area Trial for Counseling in Hyperlipidemia (WATCH). *Journal of the American Dietetic Association* 99:544–52.

6 weeks study.

Hensrud DD (2004) Tackling obesity in a 15 minute office visit. Physicians can start patients on an effective weight-loss program, despite time constraints 115(1): 95–61.

Not RCT.

Hilton S, Doherty S, Kendrick T, Kerry S, Rink E, Steptoe A Promotion of healthy behaviour among adults at increased risk of coronary heart disease in general practice: methodology and baseline data from the Change of Heart study. *Health Education* 

Not a brief intervention as nurse contacted patients via telephone in between counselling sessions.

Gerda J, Martin BW (2005) Implementation and effectiveness of a primary care based physical activity counselling scheme. *Patient Education and Counseling* 2(1):16–34.

Aim other than to assess effectiveness of a brief intervention in weight loss/maintenance in obese/overweight individuals.

King AC (2002) Harnessing motivational forces in the promotion of physical activity: The Community Health Advice by Telephone (CHAT) project. *Health Education Research* 

Not relevant to KCQ.

Leslie WS, Hankey CR, Matthews D, Currall JE, Lean ME (2004) A transferable programme of nutritional counselling for rehabilitation following myocardial infarction: a randomised controlled study. *European Journal of Clinical Nutrition* 58:778–86.

Aim other than to assess effectiveness of a brief intervention in weight loss/maintenance in obese/overweight individuals.

Little P, Kelly J, Barnett J, Dorward M, Margetts B, Warm D (2004) Randomised controlled factorial trial of dietary advice for patients with a single high blood pressure reading in primary care. *British Medical Journal* 328(7447):1054–7.

Aim other than to assess effectiveness of a brief intervention in weight loss/maintenance in obese/overweight individuals.

Logue E, Sutton K, Jarjoura D et al. (2005) Transtheoretical model – chronic disease care for obesity in primary care: a randomized trial. *Obesity Research* 13(5):917–27.

Not a brief intervention.

Loreto et al. (2003)

Exclusively for participants with type 2 diabetes. Aim other than to assess effectiveness of a brief intervention in weight loss in obese/overweight individuals.

Massari A, Point C, Truffe P, Chatellier G, Simon A, Menard J (1995) A randomised trial comparing 2 different educational interventions for teaching diet in 300 subjects having a high cardiovascular risk. *Archives des Maladies du Coeur et des Vaisseaux* 

Language other than English.

Mengham LH, Morris BF, Palmer CR, White AJS (1999) Is intensive dietetic intervention effective for overweight patients with diabetes mellitus? A randomised controlled study in a general practice. *Practical Diabetes International* 16:5–8.

Not a brief intervention.

Moore H, Summerbell CD, Greenwood DC et al. (2003) Improving management of obesity in primary care: Cluster randomised trial. *British Medical Journal* 327(7423):1085–8.

Not a brief intervention.

Naylor PJ (1999) Comparison of stage-matched and unmatched interventions to promote exercise behaviour in the primary care setting. *Health Education Research* 

Participants were not obese/overweight.

Nemet et al. (2005) Short- and long-term beneficial effects of a combined dietary-behavioral-physical activity intervention for the treatment of childhood obesity. *Pediatrics* 115

3-month study.

Nicholas L, Pond D, Roberts D-CK The effectiveness of nutrition counselling by Australian General Practitioners. *European Journal of Clinical Nutrition* 59(Suppl 1):S140–6.

Not RCT.

Ockene IS, Hebert JR, Ockene JK et al. (1999) Effect of physician-delivered nutrition counseling training and an office-support program on saturated fat intake, weight, and serum lipid measurements in a hyperlipidemic population: Worcester area trial for counseling in hyperlipidemia (WATCH). *Archives of Internal Medicine* 159(7):725–31.

Aim other than to assess effectiveness of a brief intervention in weight loss/maintenance in obese/overweight individuals.

Olivarius N-DF, Palmvig B, Andreasen AH, Thorgersen JT, Hundrup C (2005) An educational model for improving diet counselling in primary care: A case study of the creative use of doctors' own diet, their attitudes to it and to nutritional counselling of their patients with diabetes. *Patient Education and Counseling* 58(2):199–202.

Not relevant to KCQ.

Olsen J, Willaing I, Ladelund S, Jorgensen T, Gundgaard J, Sorensen J (2005) Cost-effectiveness of nutritional counseling for obese patients and patients at risk of ischemic heart disease. *International Journal of Technology Assessment in Health Care* 2005; 21(2):194–202

Not a brief intervention.

Petrella RJ (2003) Can primary care doctors prescribe exercise to improve fitness? The Step Test Exercise Prescription (STEP) Project. *American Journal of Preventive Medicine* 

Being overweight/obese was not part of inclusion criteria.

Pignone MP (2003) Counseling to promote a healthy diet in adults: A summary of the evidence for the U.S Preventive Services Task Force. *American Journal of Preventive Medicine* 

Studies that included only obese/overweight subjects were excluded from this review.

Pronk NP (2004) Addressing multiple behavioral risk factors in primary care: a synthesis of current knowledge and stakeholder dialogue sessions. *American Journal of Preventive Medicine* (Special Issue: Addressing multiple behavioral risk factors in primary care

Not relevant to KCQ.

Reed B, Jackson J, Harborne J, Roberts R (1999) Study to evaluate the effect of dietary advice and the role of exercise in obese women who are trying to lose weight. *Journal of Human Nutrition and Dietetics* 12(Suppl 1):61–70.

Retrospective analysis.

Roderick P, Ruddock V, Hunt P, Miller G (1997) A randomized trial to evaluate the effectiveness of dietary advice by practice nurses in lowering diet-related coronary heart disease risk. *British Journal of General Practice* 47(414):7–12.

Not a brief intervention.

Simkin-Silverman LR (20050 Predictors of weight control advice in primary care practices: Patient health and psychosocial characteristics. *Preventive Medicine* 

Not a brief intervention.

Simkin-Silverman LR, Wing RR (1997) Management of obesity in primary care 5(6):603–612.

Not clear length of follow-up.

Simons-Morton DG (2001) Effects of physical activity counseling in primary care: The Activity Counseling Trial: A randomized controlled trial. *Journal of the American Medical Association* 

Aim other than to assess effectiveness of a brief intervention in weight loss/maintenance in obese/overweight individuals.

Smith DE, Heckemeyer CM, Kratt PP, Mason DA (1997) Motivational interviewing to improve adherence to a behavioral weight-control program for older obese women with NIDDM A pilot study. *Diabetes Care* 20:52–4.

Not relevant to KCQ.

Staten LK (2004) Provider Counseling, Health Education, and Community Health Workers: The Arizona WISEWOMAN Project. *Journal of Women's Health* 

Aim other than to assess effectiveness of a brief intervention in weight loss/maintenance in obese/overweight individuals.

Steptoe A, Doherty S, Rink E, Kerry S, Kendrick T, Hilton S (1999) Behavioural counselling in general practice for the promotion of healthy behaviour among adults at increased risk of coronary heart disease: Randomised trial. *British Medical Journal* 319(7215):943–7.

No weight values were reported at the assessments.

Steptoe A, Kerry S, Rink E, Hilton S (2001) The impact of behavioral counseling on stage of change in fat intake, physical activity, and cigarette smoking in adults at increased risk of coronary heart disease. *American Journal of Public Health* 91:265–9. [77]

No subgroup analysis for subjects with overweight/obesity or normal weight.

Traeden UI, Holm L, Sandstrom B, Andersen PK, Jarden M (1998) Effectiveness of a dietary intervention strategy in general practice: effects on blood lipids, health and well-being. *Public Health Nutrition* 1(4):273–81.

Not an RCT.

Van der Veen J, Bakx C, Van den Hoogen H et al. (2002) Stage-matched nutrition guidance for patients at elevated risk for cardiovascular disease: A randomized intervention study in family practice. *Journal of Family Practice* 51(9):751–8.

Aim other than to assess effectiveness of a brief intervention in weight loss/maintenance in obese/overweight individuals.

Van der Bij AK (2002) Effectiveness of physical activity interventions for older adults. *American Journal of Preventive Medicine* 

Participants were not obese/overweight.

Whitlock EP (2002) Evaluating primary care behavioral counseling interventions: An evidence-based approach. *American Journal of Preventive Medicine* 

Literature review.

Willaing I, Ladelund S, Jorgensen T, Simonsen T, Nielsen LM (2004) Nutritional counselling in primary health care: A randomized comparison of an intervention by general practitioner or dietician. *European Journal of Cardiovascular Prevention and Rehabilitation* 11(6):513–20 Not a brief intervention.

Wolf AM, Conaway MR, Crowther JQ et al. (2004) Translating lifestyle intervention to practice in obese patients with type 2 diabetes: Improving Control with Activity and Nutrition (ICAN) study. *Diabetes Care* 27(7):1570–6

Not a brief intervention.

Woollard J, Beilin L, Lord T, Puddey I, MacAdam D, Rouse I (1995) A controlled trial of nurse counselling on lifestyle change for hypertensives treated in general practice: Preliminary results. *Clinical and Experimental Pharmacology and Physiology* 22(6/7):466–8.

Not a brief intervention.

Woollard J, Burke V, Beilin LJ, Verheijden M, Bulsara MK (2003) Effects of a general practice-based intervention on diet, body mass index and blood lipids in patients at cardiovascular risk. *Journal of Cardiovascular Risk* 10:31–40.

Being overweight/ obese was not part of inclusion criteria.

# 2 Update searches and papers considered

Not added details of papers from existing study, unless changed evidence statements on

weight loss

| Reference  | Reason for exclusion  |
|--|---|
| Abate N, Chandalia M, Snell PG, Grundy SM, Abate N, Chandalia M <i>et al.</i> Adipose tissue metabolites and insulin resistance in nondiabetic Asian Indian men. <i>J.Clin.Endocrinol.Metab</i> 2004;89:2750-5.                                | Awaiting expert advice on cut-offs  |
| Acarturk TO, Wachtman G, Heil B, Landecker A, Courcoulas AP, Manders EK <i>et al.</i> Panniculectomy as an adjuvant to bariatric surgery. [Review] [21 refs]. <i>Ann.Plast.Surg.</i> 2004;53:360-6.  | Reviewed the use of panniculectomy as adjuvant. Not technique of weight loss surgery. |
| Acheson KJ, Acheson KJ. Carbohydrate and weight control: where do we stand?. [Review] [70 refs]. Curr. Opin. Clin. Nutr. Metab Care 2004;7:485-92.   | Narrative review  |
| Adami GF, Ramberti G, Weiss A, Carlini F, Murelli F, Scopinaro N. Quality of life in obese subjects following biliopancreatic diversion. <i>Behavioral Medicine</i> . 2005;31:53-60.   | Not effectiveness of weight loss surgery. Mean EWL not reported.                      |
| Alvarado R, Alami RS, Hsu G, Safadi BY, Sanchez BR, Morton JM <i>et al.</i> The impact of preoperative weight loss in patients undergoing laparoscopic Roux-en-Y gastric bypass. <i>Obesity Surgery.</i> 2005;15:1282-6.                       | Less than 150 participants.   |
| Ames GE, Perri MG, Fox LD, Fallon EA, De Braganza N, Murawski ME <i>et al.</i> Changing weight-loss expectations: a randomized pilot study. <i>Eat.</i> 2005;6:259-69.   | Added in relevant Update section  |
| Anderson JW, Luan J, Hoie LH, Anderson JW, Luan J, Hoie LH. Structured weight-loss programs: meta-analysis of weight loss at 24 weeks and assessment of effects of intervention intensity. [Review] [75 refs]. <i>Adv.Ther.</i> 2004;21:61-75. | Effects at 24 weeks, not 12 months  |
| Angrisani L, Favretti F, Furbetta F, Iuppa A, Doldi SB, Paganelli M <i>et al.</i> Italian Group for Lap-Band System: results of multicenter study on patients with BMI < or =35 kg/m2. <i>Obes.Surg.</i> 2004;14:415-8.                        | Added detail in relevant Update section   |
| Ardern CI, Janssen I, Ross R, Katzmarzyk PT, Ardern CI, Janssen I <i>et al.</i> Development of health-related waist circumference thresholds within BMI categories. <i>Obes.Res.</i> 2004;12:1094-103.   | Awaiting expert advice on cut-offs  |
| Armitage CJ. Evidence That Implementation Intentions Reduce Dietary Fat Intake: A Randomized Trial. <i>Health Psychology</i> . 2004;23:319-23.   | Not 52 week follow-up   |
| Aucott L, Poobalan A, Smith WC, Avenell A, Jung R, Broom J et al. Weight loss in obese diabetic and non-diabetic individuals and long-term diabetes outcomesa systematic review. [Review] [17 refs]. <i>Diabetes</i>                           | Systematic review.  |

| Obes.Metab 2004;6 :85-94.  |   |
|--|---|
| Aude YW, Agatston AS, Lopez JF, Lieberman EH, Almon M, Hansen M <i>et al.</i> The National Cholesterol Education Program diet vs a diet lower in carbohydrates and higher in protein and monounsaturated fat: a randomized trial. <i>Arch.Intern.Med.</i> 2004;164:2141-6. | Not 52 week follow-up                   |
| Azizi F, Esmaillzadeh A, Mirmiran P, Ainy E, Azizi F, Esmaillzadeh A <i>et al.</i> Is there an independent association between waist-to-hip ratio and cardiovascular risk factors in overweight and obese women? <i>Int.J.Cardiol.</i> 2005;101:39-46.                     | Awaiting expert advice on cut-offs      |
| Beck-da-Silva L, Higginson L, Fraser M, Williams K, Haddad H, Beck-da-Silva L <i>et al.</i> Effect of Orlistat in obese patients with heart failure: a pilot study. <i>Congest.Heart Fail.</i> 2005;11:118-23.   | Not 52 week follow-up                   |
| Bennett P. Obesity, diabetes and VLCDs. Primary and secondary care partnership model to treat obesity. <i>British Journal of Diabetes &amp; Vascular Disease</i> . 2004;4:328-30.  | Description of service, not evaluation. |
| Berne C, the Orlistat ST, Berne C, the Orlistat ST. A randomized study of orlistat in combination with a weight management programme in obese patients with Type 2 diabetes treated with metformin. <i>Diabet.Med.</i> 2005;22:612-8.                                      | Absolute weight change not reported.    |
| Bhat DS, Yajnik CS, Sayyad MG, Raut KN, Lubree HG, Rege SS <i>et al.</i> Body fat measurement in Indian men: Comparison of three methods based on a two-compartment model. <i>International Journal of Obesity</i> , 2005;29:842-8.  | Awaiting expert advice on cut-offs      |
| Bigaard J, Frederiksen K, Tjonneland A, Thomsen BL, Overvad K, Heitmann BL <i>et al.</i> Waist and hip circumferences and all-cause mortality: Usefulness of the waist-to-hip ratio? <i>International Journal of Obesity.</i> 2004;28:741-7.                               | Awaiting expert advice on cut-offs      |
| Birkenfeld AL, Schroeder C, Pischon T, Tank J, Luft FC, Sharma AM <i>et al.</i> Paradoxical effect of sibutramine on autonomic cardiovascular regulation in obese hypertensive patientssibutramine and blood pressure. <i>Clin.Auton.Res.</i> 2005;15:200-6.               | Not 52 week follow-up                   |
| Birketvedt GS, Shimshi M, Erling T, Florholmen J, Birketvedt GS, Shimshi M <i>et al.</i> Experiences with three different fiber supplements in weight reduction. <i>Med.Sci.Monit.</i> 2005;11:I5-I8.  | Effectiveness of fibre supplements.     |
| Blair SN, LaMonte MJ, Nichaman MZ, Blair SN, LaMonte MJ, Nichaman MZ. The evolution of physical activity recommendations: how much is enough?. [Review] [62 refs]. <i>Am.J.Clin.Nutr.</i> 2004;79:913S-20S.  | Narrative review.                       |
| Borg P, Fogelholm M, Kukkonen-Harjula K. Food selection and eating behaviour during weight   | Observational follow-up study from      |

| maintenance intervention and 2-y follow-up in obese men. <i>International Journal of Obesity</i> . 2004;28:1548-54.  | RCT  |
|--|--|
| Brandsma LL. Physician and patient attitudes toward obesity. <i>Eating Disorders</i> . 2005;13:1-211.  | Not UK based   |
| Branson R, Potoczna N, Brunotte R, Piec G, Ricklin T, Steffen R <i>et al.</i> Impact of age, sex and body mass index on outcomes at four years after gastric banding. <i>Obesity Surgery.</i> 2005;15:834-42.  | Added detail in relevant Update section  |
| Cabioglu MT, Ergene N, Cabioglu MT, Ergene N. Electroacupuncture therapy for weight loss reduces serum total cholesterol, triglycerides, and LDL cholesterol levels in obese women. <i>Am.J.Chin.Med.</i> 2005;33:525-33.  | Not included therapy   |
| Camerini G, Marinari GM, Adami GF, Scopinaro N. Preoperative resting energy expenditure does not predict weight loss and maintenance after vertical banded gastroplasty. <i>Obesity Surgery</i> . 2005;15:809-12.  | Less than 150 participants.  |
| Carels RA DLDOCHR. Education on the glycemic index of foods fails to improve treatment outcomes in a behavioral weight loss program. <i>Eat.</i> 2005;6:145-50.  | Compared effectiveness of different education programmes (with/without GI component), rather than different diets. |
| Chapman MJ, Craven MJ, Chadwick DD. Fighting fit? An evaluation of health practitioner input to improve healthy living and reduce obesity for adults with learning disabilities. <i>Journal of Intellectual Disabilities</i> . 2005;9:131-44.  | Not RCT  |
| Chopra M, Darnton-Hill I, Chopra M, Darnton-Hill I. Tobacco and obesity epidemics: not so different after all?. [Review] [23 refs]. <i>BMJ</i> 2004;328:1558-60.   | Narrative review   |
| Christou NV, Jarand J, Sylvestre JL, McLean APH.<br>Analysis of the Incidence and Risk Factors for Wound<br>Infections in Open Bariatric Surgery. <i>Obesity Surgery</i> .<br>2004;14:16-22.   | Wound infection in the immediate period after surgery, not weight loss.  |
| Cikim AS, Ozbey N, Orhan Y. Relationship between cardiovascular risk indicators and types of obesity in overweight and obese women. <i>Journal of International Medical Research</i> . 2004;32:268-73.   | Awaiting expert advice on cut-offs   |
| Coffey CS, Steiner D, Baker BA, Allison DB, Coffey CS, Steiner D <i>et al.</i> A randomized double-blind placebo-controlled clinical trial of a product containing ephedrine, caffeine, and other ingredients from herbal sources for treatment of overweight and obesity in the absence of lifestyle treatment. <i>Int.J.Obes.Relat Metab Disord.</i> 2004;28:1411-9. | OTC herbal product   |
| Collet D, Rault A, Sa C, Larroude D, Masson B. Laparoscopic adjustable gastric banding results after 2 years with two different band types. <i>Obesity Surgery</i> . 2005;15:853-7.  | Comparison of different lap bands.   |
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| Cook NR KSCJWPToHPCRG. Dose-response of sodium excretion and blood pressure change among overweight, nonhypertensive adults in a 3-year dietary intervention study. <i>J.Hum.Hypertens</i> . 2005;19:47-54.  | TOHP II paper   |
|--|---|
| Crowe TC,.Crowe TC. Safety of low-carbohydrate diets. [Review] [70 refs]. <i>Obes.Rev.</i> 2005;6:235-45.  | Narrative review  |
| Dalle Grave R, Calugi S, Magri F, Cuzzolaro M, Dall AE, Lucchin L et al. Weight Loss Expectations in Obese Patients Seeking Treatment at Medical Centers. Obesity Research, Dec 2004, vol.12., no.12., p.2005 2012., eISSN.: 1550.8528., ISSN.: 1071.7323.Publisher.: North American Assn.for the Study of Obesity (NAASO.), US, http:://www.naaso.org. 2004.  | Refer to CPHE review on Behaviour<br>Change for evidence (to be<br>published) |
| Dargent J. Esophageal dilatation after laparoscopic adjustable gastric banding: Definition and strategy. <i>Obesity Surgery</i> . 2005;15:843-8.   | No mean EWL reported.   |
| Day P. What is the evidence for the safety and effectiveness of surgical and non-surgical interventions for patients with morbid obesity? 2005.  | Technical review – similar conclusions re evidence base                       |
| de Zwaan M, Mitchell JE, Crosby RD, Mussell MP, Raymond NC, Specker SM et al. Short-Term Cognitive Behavioral Treatment Does Not Improve Outcome of a Comprehensive Very-Low-Calorie Diet Program in Obese Women With Binge Eating Disorder. Behavior Therapy, Win.2005, vol.36., no.1, p.89.99., ISSN.: 0005.7894.Publisher.: Assn.for the Advancement.of Behavior Therapy, US, http:://www.aabt.org. 2005. | Not 52 week follow-up. Also involved treatment of BED.                        |
| Deforche B, De B, I, Tanghe A, Debode P, Hills AP, Bouckaert J et al. Post-treatment phone contact: a weight maintenance strategy in obese youngsters.<br>Int.J. Obes. Relat Metab Disord. 2005;29:543-6.  | Children/adolescents, not adults  |
| Dolan K, Fielding G. Bilio pancreatic diversion following failure of laparoscopic adjustable gastric banding.<br>Surgical Endoscopy. 2004;18:60-3.   | Only subset of 85 patients who had band removed.                              |
| Douketis JD, Paradis G, Keller H, Martineau C, Douketis JD, Paradis G <i>et al.</i> Canadian guidelines for body weight classification in adults: application in clinical practice to screen for overweight and obesity and to assess disease risk. <i>ECMAJ., Can.</i> 2005;172:995-8.  | Guidelines, used for cross reference  |
| Due A, Toubro S, Stender S, Skov AR, Astrup A, Due A et al. The effect of diets high in protein or carbohydrate on inflammatory markers in overweight subjects. Diabetes Obes. Metab 2005;7:223-9.   | Not 52 week follow-up.  |
| Dunstan DW DRO. Home-based resistance training is not sufficient to maintain improved glycemic control following supervised training in older individuals with type 2 diabetes. <i>Diabetes Care</i> 2005;28:3-9.  | Added in relevant Update searches,  |
| Ebbeling CB LMSKS-SLFHLD. Effects of an ad libitum   | Not added, as compares different  |

| low-glycemic load diet on cardiovascular disease risk factors in obese young adults. <i>The American journal of clinical nutrition</i> 2005;81:976-82.   | diets in combination with activity and behavioural interventions. Small study, with limited detail on interventions. Would not change evidence statements or recommendations. |
|--|---|
| Elfhag K,.Rossner S. Who succeeds in maintaining weight loss? A conceptual review of factors associated with weight loss maintenance and weight regain. <i>Obesity Reviews</i> . 2005;6:67-85.   | Refer to CPHE review on Behaviour<br>Change for evidence (to be<br>published)   |
| Ellis Gardner R,.Hausenblas HA. Understanding Exercise and Diet Motivation in Overweight Women Enrolled in a Weight-Loss Program: A Prospective Study Using the Theory of Planned Behavior. <i>Journal of Applied Social Psychology, Jul.2004, vol.34., no.7., p.1353.1370., ISSN.: 0021.9029.Publisher.: Bellwether.Publishing., US, http:://www.bellpub.com.</i> 2004. | Refer to CPHE review on Behaviour<br>Change for evidence (to be<br>published)   |
| Esmaillzadeh A, Mirmiran P, Azizi F, Esmaillzadeh A, Mirmiran P, Azizi F. Waist-to-hip ratio is a better screening measure for cardiovascular risk factors than other anthropometric indicators in Tehranian adult men. <i>Int.J.Obes.Relat Metab Disord.</i> 2004;28:1325-32.   | Awaiting expert advice on cut-offs  |
| Farmer SR, Auwerx J, Farmer SR, Auwerx J. Adipose tissue: new therapeutic targets from molecular and genetic studiesIASO Stock Conference 2003 report. [Review] [24 refs]. <i>Obes.Rev.</i> 2004;5:189-96.   | Not relevant  |
| Fatouros IG, Tournis S, Leontsini D, Jamurtas AZ, Sxina M, Thomakos P <i>et al.</i> Leptin and adiponectin responses in overweight inactive elderly following resistance training and detraining are intensity related. <i>Journal of Clinical Endocrinology &amp; Metabolism.</i> 2005;90:5970-7.   | No requirement for participants to be overweight/obese.   |
| Feigenbaum A, Pasternak S, Zusk E, Sarid M, Vinker S, Feigenbaum A <i>et al.</i> Influence of intense multidisciplinary follow-up and orlistat on weight reduction in a primary care setting. <i>BMC Fam.Pract.</i> 2005;6:5.  | Not RCT   |
| Ferreira I, Snijder MB, Twisk JWR, Van M, Kemper HCG, Seidell JC <i>et al.</i> Central fat mass versus peripheral fat and lean mass: Opposite (adverse versus favorable) associations with arterial stiffness? The Amsterdam growth and health longitudinal study. <i>Journal of Clinical Endocrinology &amp; Metabolism.</i> 2004;89:2632-9.                            | Awaiting expert advice on cut-offs  |
| Focht BC, Rejeski WJ, Ambrosius WT, Katula JA, Messier SP, Focht BC <i>et al.</i> Exercise, self-efficacy, and mobility performance in overweight and obese older adults with knee osteoarthritis. <i>Arthritis Rheum.</i> 2005;53:659-65.   | Messier 2004 paper  |
| Foster GD, Phelan S, Wadden TA, Gill D, Ermold J, Didie E et al. Promoting more modest weight losses: a pilot study. Obes.Res. 2004;12:1271-7.   | Not RCT   |

| Foster-Schubert KE, McTiernan A, Frayo RS, Schwartz RS, Rajan KB, Yasui Y <i>et al.</i> Human plasma ghrelin levels increase during a one-year exercise program. <i>Journal of Clinical Endocrinology &amp; Metabolism.</i> 2005;90:820-5.   | Added detail in relevant Update section.                                      |
|--|---|
| Frank LL SBY. Effects of exercise on metabolic risk variables in overweight postmenopausal women: a randomized clinical trial. <i>Obes.Res.</i> 2005;13:615-25.  | Weight loss not reported.   |
| Friedman KE, Reichmann SK, Costanzo PR, Zelli A, Ashmore JA, Musante GJ <i>et al.</i> Weight stigmatization and ideological beliefs: relation to psychological functioning in obese adults. <i>Obes.Res.</i> 2005;13:907-16.   | Refer to CPHE review on Behaviour<br>Change for evidence (to be<br>published) |
| Ghosh A, Bose K, Chakravarti S, Chaudhuri AB, Chattopadhyay J, Dasgupta G <i>et al.</i> Central obesity and coronary risk factors. <i>J.R.Soc.Health</i> 2004;124:86-90.   | Awaiting expert advice on cut-offs  |
| Go MR, Muscarella IIP, Needleman BJ, Cook CH, Melvin WS. Endoscopic management of stomal stenosis after Roux-en-Y gastric bypass. <i>Surgical Endoscopy</i> . 2004;18:56-9.  | Weight outcomes not reported.   |
| Goh VHH, Tain CF, Tong TYY, Mok HPP, Wong MT. Are BMI and other anthropometric measures appropriate as indices for obesity? A study in an Asian population. <i>Journal of Lipid Research</i> . 2004;45:1892-8.   | Awaiting expert advice on cut-offs  |
| Gokce N, Vita JA, McDonnell M, Forse AR, Istfan N, Stoeckl M <i>et al.</i> Effect of medical and surgical weight loss on endothelial vasomotor function in obese patients. <i>American Journal of Cardiology.</i> 2005;95:266-8.   | Less than 150 participants.   |
| Goldstein MG, Whitlock EP, DePue J, Planning Committee of the Addressing Multiple Behavioral Risk Factors in Primary Care Project., Goldstein MG, Whitlock EP <i>et al.</i> Multiple behavioral risk factor interventions in primary care. Summary of research evidence. [Review] [146 refs]. <i>Am.J.Prev.Med.</i> 2004;27:61-79. | Review based on USPSTF evidence summary.                                      |
| Graci S, Izzo G, Savino S, Cattani L, Lezzi G, Berselli ME et al. Weight cycling and cardiovascular risk factors in obesity. <i>Int.J.Obes.Relat Metab Disord.</i> 2004;28:65-71.  | Not relevant  |
| Grievink L, Alberts JF, O'Niel J, Gerstenbluth I, Grievink L, Alberts JF <i>et al.</i> Waist circumference as a measurement of obesity in the Netherlands Antilles; associations with hypertension and diabetes mellitus. <i>Eur.J.Clin.Nutr.</i> 2004;58:1159-65.   | Awaiting expert advice on cut-offs  |
| Gus M, Fuchs SC, Moreira LB, Moraes RS, Wiehe M, Silva AF <i>et al.</i> Association between different measurements of obesity and the incidence of hypertension. <i>Am.J.Hypertens.</i> 2004;17:50-3.  | Awaiting expert advice on cut-offs  |
| He M,.Stubbs RS. Gastric bypass surgery for severe obesity: What can be achieved? New Zealand Medical  | See White 2005  |

| Journal. 2004;117:14p.   |  |
|--|--|
| Hesse UJ, Ceelen W, Cardon A, Pattyn P. One- to three-<br>year results of gastric banding on secondary<br>complications of morbid obesity in 625 patients.<br><i>Chirurgische Gastroenterologie</i> . 2005;21:37-9.  | Follow-up less than 24 months.   |
| Hsu C, Hwang K, Chao C, Chang H, Chou P. Electroacupuncture in obese women: a randomized, controlled pilot study. <i>J.Womens Health (Larchmt.)</i> 2005;14:434-40.  | Not relevant   |
| Janssen I, Katzmarzyk PT, Ross R. Waist circumference and not body mass index explains obesity-related health risk. <i>Am.J.Clin.Nutr.</i> 2004;79:379-84.   | Awaiting expert advice on cut-offs   |
| Keller CS, Robinson B, Pickens L, Keller CS, Robinson B, Pickens L. Comparison of two walking frequencies in African American postmenopausal women. <i>ABNF J.</i> 2004;15:3-9.  | Not 52 week follow-up. Also community based.   |
| Kelly J, Tarnoff M, Shikora S, Thayer B, Jones DB, Forse RA <i>et al.</i> Best practice recommendations for surgical care in weight loss surgery. [Review] [71 refs]. <i>Obes.Res.</i> 2005;13:227-33.   | Evidence based recommendations, focussing on process and delivery, in addition to surgical technique |
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## Appendix 17

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### Summary estimates for interventions 3

- Please note all the summary statistics have been checked by a consultant statistician for
- 4 accuracy.

#### *3.1* Dietary interventions

DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care Comparison: 01 Weight change in kg at 3 months

| Study or sub-category   | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N  | Usual care<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |   |
|---|--------|----------------------------------|----|-------------------------|-----|-----------------------|-------------|-----------------------|---|
| HOT 1999  | 51     | -2.70(3.40)                      | 51 | -1.70(2.30)             |     | -                     | 100.00      | -1.00 [-2.13, 0.13]   | _ |
| Total (95% CI) Test for heterogeneity: not appl Test for overall effect: Z = 1.74 |        |                                  | 51 |                         |     | •                     | 100.00      | -1.00 [-2.13, 0.13]   |   |
|   |        |                                  |    |                         | -10 | -5 0                  | 5 10        |                       |   |

DIET Analyses for adults

01 600kcal day deficit or low fat diet vs usual care
02 Weight change in kg at 6 months Comparison:

Outcome:

| Study or sub-category        | N 6                       | 600kcal/low fat diet<br>Mean (SD)     | N   | Usual care<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|---------------------------|---------------------------------------|-----|-------------------------|-----|-----------------------|-------------|-----------------------|
| HOT 1999                     | 51                        | -3.20(4.30)                           | 51  | -1.80(2.70)             |     | -                     | 19.09       | -1.40 [-2.79, -0.01]  |
| HPT 1990                     | 112                       | -5.58(2.86)                           | 119 | 0.18(2.95)              | -   | -                     | 66.04       | -5.76 [-6.51, -5.01]  |
| TAIM 1992                    | 89                        | -4.40(6.60)                           | 90  | -0.70(3.79)             |     | -                     | 14.87       | -3.70 [-5.28, -2.12]  |
| Total (95% CI)               | 252                       |                                       | 260 |                         | ,   | •                     | 100.00      | -4.62 [-5.23, -4.01]  |
| Test for heterogeneity: Ch   | $ni^2 = 30.71$ , $df = 2$ | (P < 0.00001), I <sup>2</sup> = 93.5° | %   |                         |     | ·                     |             |                       |
| Test for overall effect: Z = | 14.87 (P < 0.000          | 01)                                   |     |                         |     |                       |             |                       |
|                              |                           |                                       |     |                         | -10 | 5 0 5                 | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

01 600kcal day deficit or low fat diet vs usual care Comparison:

03 Weight change in kg at 7 months Outcome:

| Study<br>or sub-category   | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N  | Usual care<br>Mean (SD) |     |    | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------|----------------------------------|----|-------------------------|-----|----|-----------------|---|-------------|-----------------------|
| Wood 1988  | 42     | -7.60(3.90)                      | 42 | 0.20(2.50)              | -   |    |                 |   | 100.00      | -7.80 [-9.20, -6.40]  |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 10 |        | 01)                              | 42 |                         | •   |    |                 |   | 100.00      | -7.80 [-9.20, -6.40]  |
|  |        |                                  |    |                         | -10 | -5 | 0 5             | 5 | 10          |                       |

01 600kcal day deficit or low fat diet vs usual care 04 Weight change in kg at 12 months Comparison:

Outcome:

| Study or sub-category  | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) | WMD (fixed)<br>95% CI        | Weight % | WMD (fixed)<br>95% CI |
|--|--------|----------------------------------|-----|-------------------------|------------------------------|----------|-----------------------|
| DISH 1985  | 67     | -4.00(5.00)                      | 77  | -0.46(3.60)             |                              | 15.18    | -3.54 [-4.98, -2.10]  |
| Frey-Hewitt 1990   | 36     | -6.68(3.94)                      | 41  | 0.38(3.66)              | <del></del>                  | 10.85    | -7.06 [-8.77, -5.35]  |
| HOT 1999   | 51     | -1.70(6.40)                      | 51  | -1.30(6.28)             |                              | 5.22     | -0.40 [-2.86, 2.06]   |
| Hankey 2001  | 25     | -0.60(5.30)                      | 25  | 2.40(5.00)              | <del></del>                  | 3.87     | -3.00 [-5.86, -0.14]  |
| ODES 1995  | 52     | -4.00(5.05)                      | 43  | 1.10(2.62)              | <del></del>                  | 12.65    | -5.10 [-6.68, -3.52]  |
| Pritchard 1997   | 18     | -6.40(3.30)                      | 19  | 0.30(2.40)              |                              | 9.05     | -6.70 [-8.57, -4.83]  |
| Pritchard 1999 Dietn   | 88     | -5.10(7.36)                      | 45  | 0.60(6.08)              | <del></del>                  | 5.72     | -5.70 [-8.05, -3.35]  |
| Pritchard 1999 Dn&Dr   | 92     | -6.20(7.67)                      | 45  | 0.60(6.08)              | <del></del>                  | 5.63     | -6.80 [-9.17, -4.43]  |
| TAIM 1992  | 57     | -3.70(6.79)                      | 61  | -0.50(3.12)             | <del></del>                  | 8.49     | -3.20 [-5.13, -1.27]  |
| Wood 1988  | 42     | -7.20(3.70)                      | 42  | 0.60(3.70)              | <del></del>                  | 12.61    | -7.80 [-9.38, -6.22]  |
| Wood 1991 F  | 31     | -4.10(5.50)                      | 39  | 1.30(5.20)              | <del></del>                  | 4.93     | -5.40 [-7.93, -2.87]  |
| Wood 1991 M  | 40     | -5.10(5.80)                      | 40  | 1.70(4.80)              | <del></del>                  | 5.80     | -6.80 [-9.13, -4.47]  |
| Total (95% CI)   | 599    |                                  | 528 |                         | •                            | 100.00   | -5.32 [-5.88, -4.75]  |
| Test for heterogeneity: Chi <sup>2</sup> =<br>Test for overall effect: Z = 18. |        | · /·                             | 7%  |                         |                              |          |                       |
|  |        |                                  |     |                         | -10 -5 0 5                   | 10       |                       |
|  |        |                                  |     |                         | Favours treatment Favours or | ontrol   |                       |

DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care Comparison:

Outcome: 05 Weight change in kg at 18 months

| Study or sub-category        | 6<br>N                     | 00kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) |      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|----------------------------|----------------------------------|-----|-------------------------|------|-----------------------|-------------|-----------------------|
|                              |                            | Wedit (OD)                       |     | Mican (OD)              |      | 1                     | ,,,         | 3070 01               |
| HOT 1999                     | 51                         | -1.80(6.42)                      | 51  | -1.40(6.31)             |      | <del>-</del>          | 42.19       | -0.40 [-2.87, 2.07]   |
| TAIM 1992                    | 57                         | -2.70(7.55)                      | 61  | -1.00(3.12)             |      | -                     | 57.81       | -1.70 [-3.81, 0.41]   |
| Total (95% CI)               | 108                        |                                  | 112 |                         |      |                       | 100.00      | -1.15 [-2.76, 0.45]   |
| Test for heterogeneity: Cl   | $hi^2 = 0.61$ , $df = 1$ ( | P = 0.43), I <sup>2</sup> = 0%   |     |                         |      |                       |             |                       |
| Test for overall effect: Z = | = 1.41 (P = 0.16)          |                                  |     |                         |      |                       |             |                       |
|                              |                            |                                  |     |                         | 10 6 | 5 0 5                 | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

DIET Analyses for adults Review:

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Comparison: 01 600kcal day deficit or low fat diet vs usual care

06 Weight change in kg at 30 months Outcome:

| Study or sub-category   | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N  | Usual care<br>Mean (SD) |     | WMD (fixe<br>95% CI |          | Weight % | WMD (fixed)<br>95% CI |
|---|--------|----------------------------------|----|-------------------------|-----|---------------------|----------|----------|-----------------------|
| HOT 1999  | 51     | -1.30(6.28)                      | 51 | -2.00(6.48)             |     | -                   | _        | 100.00   | 0.70 [-1.78, 3.18]    |
| Total (95% CI) Test for heterogeneity: not appl Test for overall effect: Z = 0.55 |        |                                  | 51 |                         |     | <b>•</b>            | <b>-</b> | 100.00   | 0.70 [-1.78, 3.18]    |
| •   |        |                                  |    |                         | -10 | -5 0                | 5        | 10       |                       |

Review: DIET Analyses for adults

Comparison: 01 600kcal day deficit or low fat diet vs usual care

07 Weight change in kg at 24 months Outcome:

| Study or sub-category        | N 6               | 600kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|-------------------|-----------------------------------|-----|-------------------------|-----------------------|-------------|-----------------------|
| HOT 1999                     | 51                | -1.70(6.40)                       | 51  | -1.90(6.45)             | _ <del>_</del>        | 43.58       | 0.20 [-2.29, 2.69]    |
| TAIM 1992                    | 57                | -1.90(7.55)                       | 61  | -0.40(3.91)             |                       | 56.42       | -1.50 [-3.69, 0.69]   |
| Total (95% CI)               | 108               |                                   | 112 |                         |                       | 100.00      | -0.76 [-2.41, 0.89]   |
| Test for heterogeneity: C    |                   | $P = 0.32$ ), $I^2 = 0.7\%$       |     |                         |                       |             |                       |
| Test for overall effect: Z = | = 0.90 (P = 0.37) |                                   |     |                         |                       |             |                       |
|                              |                   |                                   |     |                         | -10 -5 0 5            | 10          |                       |

DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care 08 Weight change in kg at 36 months Comparison: Outcome:

| Study or sub-category  | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) |      |             | MD (fixed)<br>95% CI |           | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------|----------------------------------|-----|-------------------------|------|-------------|----------------------|-----------|-------------|-----------------------|
| HPT 1990   | 117    | -1.63(4.43)                      | 113 | 1.86(4.36)              |      | -           |                      |           | 100.00      | -3.49 [-4.63, -2.35]  |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 6.0 |        | 1)                               | 113 |                         |      | •           |                      |           | 100.00      | -3.49 [-4.63, -2.35]  |
|  |        |                                  |     |                         | -10  | -5          | Ö                    | 5         | 10          |                       |
|  |        |                                  |     |                         | Favo | urs treatme | nt Favou             | irs contr | ol          |                       |

DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care 09 Weight change in kg over time Comparison:

| Study<br>or sub-category | 6<br>N | 600kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------|--------|-----------------------------------|-----|-------------------------|-----------------------|-------------|-----------------------|
| 01 HOT 1990              |        |                                   |     |                         |                       |             |                       |
| HOT 3 months             | 51     | -2.70(3.40)                       | 51  | -1.70(2.30)             | <del></del>           | 40.29       | -1.00 [-2.13, 0.13]   |
| HOT 6 months             | 51     | -3.20(4.30)                       | 51  | 1.80(2.70)              | <del></del>           | 26.33       | -5.00 [-6.39, -3.61]  |
| HOT 12 months            | 51     | -1.70(6.40)                       | 51  | -1.30(6.28)             | <del></del>           | 8.44        | -0.40 [-2.86, 2.06]   |
| HOT 18 months            | 51     | -1.80(6.42)                       | 51  | -1.40(6.31)             | <del></del>           | 8.38        | -0.40 [-2.87, 2.07]   |
| HOT 24 months            | 51     | -1.70(6.40)                       | 51  | -1.90(6.45)             | <del></del>           | 8.22        | 0.20 [-2.29, 2.69]    |
| HOT 30 months            | 51     | -1.30(6.28)                       | 51  | -2.00(6.48)             | <del> </del>          | 8.34        | 0.70 [-1.78, 3.18]    |
| 02 HPT 1990              |        |                                   |     |                         |                       |             |                       |
| HPT 6 months             | 112    | -5.58(2.86)                       | 119 | 0.18(2.95)              | <del>-</del>          | 69.68       | -5.76 [-6.51, -5.01]  |
| HPT 36 months            | 117    | -1.63(4.43)                       | 113 | 1.86(4.36)              | -                     | 30.32       | -3.49 [-4.63, -2.35]  |
| 03 TAIM 1992             |        |                                   |     |                         |                       |             |                       |
| TAIM 6 months            | 89     | -4.40(6.60)                       | 90  | -0.70(3.79)             | <del></del>           | 36.38       | -3.70 [-5.28, -2.12]  |
| TAIM 12 months           | 57     | -3.70(6.79)                       | 61  | -0.50(3.12)             | <del></del>           | 24.38       | -3.20 [-5.13, -1.27]  |
| TAIM 18 months           | 57     | -2.70(7.55)                       | 61  | -1.00(3.12)             | <del></del>           | 20.36       | -1.70 [-3.81, 0.41]   |
| TAIM 24 months           | 57     | -1.90(7.55)                       | 61  | -0.40(3.91)             | <del></del>           | 18.88       | -1.50 [-3.69, 0.69]   |
| 04 Wood 1988             |        |                                   |     |                         |                       |             |                       |
| Wood 7 months            | 42     | -7.60(3.90)                       | 42  | 0.20(2.50)              | -                     | 56.06       | -7.80 [-9.20, -6.40]  |
| WOOD / IIIOIIIIIS        | 42     | -7.20(3.70)                       | 42  | 0.60(3.70)              | <del></del>           | 43.94       | -7.80 [-9.38, -6.22]  |

DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care 10 Change in TC mmol/l at 7 months Comparison: Outcome:

| Study or sub-category   | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N  | Usual care<br>Mean (SD) |    |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|--------|----------------------------------|----|-------------------------|----|------|-----------------|-------------|-----------------------|
| Wood 1988   | 42     | -0.40(0.55)                      | 42 | -0.21(0.48)             |    | -    | -               | 100.00      | -0.19 [-0.41, 0.03]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |        |                                  | 42 |                         |    | •    |                 | 100.00      | -0.19 [-0.41, 0.03]   |
|   |        |                                  |    |                         | -1 | -0.5 | 0 0.5           | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

DIET Analyses for adults

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Comparison: Outcome: 01 600kcal day deficit or low fat diet vs usual care 11 Change in TC mmol/l at 12 months

| Study or sub-category                                      | 6<br>N | :00kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) |           | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--|--------|-----------------------------------|-----|-------------------------|-----------|-----------------------|----------|-----------------------|
| ODES 1995  | 52     | -0.23(0.65)                       | 43  | -0.16(0.59)             |           |                       | 26.23    | -0.07 [-0.32, 0.18]   |
| Wood 1988  | 42     | -0.36(0.56)                       | 42  | -0.23(0.65)             |           | <del></del>           | 24.28    | -0.13 [-0.39, 0.13]   |
| Wood 1991 F  | 31     | -0.39(0.61)                       | 39  | -0.03(0.47)             |           | <del></del>           | 24.08    | -0.36 [-0.62, -0.10]  |
| Wood 1991 M  | 40     | -0.42(0.51)                       | 40  | -0.14(0.64)             |           | -                     | 25.41    | -0.28 [-0.53, -0.03]  |
| Total (95% CI)   | 165    |                                   | 164 |                         |           | •                     | 100.00   | -0.21 [-0.34, -0.08]  |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |        |                                   |     |                         |           |                       |          |                       |
|  |        |                                   |     |                         | <u>-1</u> | -0.5 0 0.5            | 1        |                       |

Favours treatment Favours control DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care Review:

Comparison:

Outcome: 12 Change in LDLC mmol/l at 7 months

| Study or sub-category  | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N  | Usual care<br>Mean (SD) |         | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------|----------------------------------|----|-------------------------|---------|----------------------|-------------|-----------------------|
| Wood 1988  | 42     | -0.27(0.59)                      | 42 | -0.15(0.46)             | -       | -                    | 100.00      | -0.12 [-0.35, 0.11]   |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 1.0 |        |                                  | 42 |                         | -       | <b>•</b>             | 100.00      | -0.12 [-0.35, 0.11]   |
|  |        |                                  |    |                         | -1 -0.5 | 0 0.5                | 1           |                       |

Review: DIET Analyses for adults Comparison:

01 600kcal day deficit or low fat diet vs usual care
13 Change in LDLC mmol/l at 12 months Outcome:

| Study or sub-category        | 6<br>N                      | 00kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|-----------------------------|----------------------------------|-----|-------------------------|--------|-----------------------|-------------|-----------------------|
| ODES 1995                    | 52                          | -0.18(0.72)                      | 43  | -0.22(0.59)             |        |                       | 23.88       | 0.04 [-0.22, 0.30]    |
| Wood 1988                    | 42                          | -0.31(0.64)                      | 42  | -0.21(0.67)             |        | <del></del>           | 21.10       | -0.10 [-0.38, 0.18]   |
| Wood 1991 F                  | 31                          | -0.28(0.63)                      | 39  | -0.03(0.41)             | _      |                       | 25.20       | -0.25 [-0.51, 0.01]   |
| Wood 1991 M                  | 40                          | -0.39(0.48)                      | 40  | -0.20(0.59)             |        | <del></del>           | 29.82       | -0.19 [-0.43, 0.05]   |
| Total (95% CI)               | 165                         |                                  | 164 |                         |        | •                     | 100.00      | -0.13 [-0.26, 0.00]   |
| Test for heterogeneity: C    | $hi^2 = 2.73$ , $df = 3$ (I | P = 0.43), I <sup>2</sup> = 0%   |     |                         |        | ·                     |             |                       |
| Test for overall effect: Z = | = 2.00 (P = 0.05)           |                                  |     |                         |        |                       |             |                       |
|                              |                             |                                  |     |                         | -1 -0. | 5 0 0.5               | 1           |                       |

DIET Analyses for adults Review:

01 600kcal day deficit or low fat diet vs usual care 14 Change in HDLC mmol/l at 7 months Comparison: Outcome:

| Study<br>or sub-category   | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N  | Usual care<br>Mean (SD) |    |             | /MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------|----------------------------------|----|-------------------------|----|-------------|-----------------------|-------------|-----------------------|
| Wood 1988  | 41     | 0.06(0.14)                       | 41 | 0.00(0.10)              |    |             | =                     | 100.00      | 0.06 [0.01, 0.11]     |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |        |                                  | 41 |                         |    |             | •                     | 100.00      | 0.06 [0.01, 0.11]     |
| •  |        |                                  |    |                         | -1 | -0.5        | 0 0.5                 | 1           |                       |
|  |        |                                  |    |                         | F  | avours cont | trol Favours trea     | atment      |                       |

DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care Comparison: Outcome:

15 Change in HDLC mmol/l at 12 months

| Study or sub-category        | N 6                       | 00kcal/low fat diet<br>Mean (SD)    | N   | Usual care<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |  |
|------------------------------|---------------------------|-------------------------------------|-----|-------------------------|-----------------------|-------------|-----------------------|--|
| ODES 1995                    | 52                        | 0.05(0.12)                          | 43  | 0.02(0.10)              | <u>_</u>              | 47.85       | 0.03 [-0.01, 0.07]    |  |
| Wood 1988                    | 41                        | 0.12(0.16)                          | 41  | -0.02(0.11)             | =                     | 26.51       | 0.14 [0.08, 0.20]     |  |
| Wood 1991 F                  | 31                        | -0.15(0.26)                         | 39  | -0.05(0.24)             | <del></del>           | 6.67        | -0.10 [-0.22, 0.02]   |  |
| Wood 1991 M                  | 40                        | 0.02(0.17)                          | 40  | -0.05(0.15)             | <del> -</del>         | 18.97       | 0.07 [0.00, 0.14]     |  |
| Total (95% CI)               | 164                       |                                     | 163 |                         | <b>•</b>              | 100.00      | 0.06 [0.03, 0.09]     |  |
| Test for heterogeneity: Cl   | $hi^2 = 15.79$ , $df = 3$ | (P = 0.001), I <sup>2</sup> = 81.0% |     |                         | ľ                     |             |                       |  |
| Test for overall effect: Z = | 3.72 (P = 0.0002)         | )                                   |     |                         |                       |             |                       |  |
| -                            |                           |                                     |     |                         | 1 05 0 05             | +           |                       |  |

Favours control Favours treatment

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: Comparison:

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DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care 16 Change in TG mmol/l at 7 months

Outcome:

| Study or sub-category  | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N  | Usual care<br>Mean (SD) | WMD (fixe<br>95% CI | , | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------|----------------------------------|----|-------------------------|---------------------|---|-------------|-----------------------|
| Wood 1988  | 42     | -0.40(0.60)                      | 42 | -0.01(0.51)             | -                   |   | 100.00      | -0.39 [-0.63, -0.15]  |
| Total (95% CI) Test for heterogeneity: not app Test for overall effect: Z = 3.21 |        |                                  | 42 |                         | •                   |   | 100.00      | -0.39 [-0.63, -0.15]  |

Review:

DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care Comparison:

Outcome: 17 Change in TG mmol/l at 12 months

| Study<br>or sub-category     | N 6                          | 600kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|------------------------------|-----------------------------------|-----|-------------------------|-----------------------|-------------|-----------------------|
| ODES 1995                    | 52                           | -0.23(1.01)                       | 43  | 0.17(0.92)              |                       | 10.04       | -0.40 [-0.79, -0.01]  |
| Wood 1988                    | 42                           | -0.27(0.72)                       | 42  | 0.08(0.60)              | <del></del>           | 18.86       | -0.35 [-0.63, -0.07]  |
| Wood 1991 F                  | 31                           | 0.09(0.36)                        | 39  | 0.13(0.37)              | <del></del>           | 51.30       | -0.04 [-0.21, 0.13]   |
| Wood 1991 M                  | 40                           | -0.12(0.59)                       | 40  | 0.18(0.67)              |                       | 19.80       | -0.30 [-0.58, -0.02]  |
| Total (95% CI)               | 165                          |                                   | 164 |                         | •                     | 100.00      | -0.19 [-0.31, -0.06]  |
| Test for heterogeneity: Ch   | $ni^2 = 5.88$ , $df = 3$ (1) | P = 0.12), I <sup>2</sup> = 48.9% |     |                         |                       |             |                       |
| Test for overall effect: Z = | 2.96 (P = 0.003)             |                                   |     |                         |                       |             |                       |
| -                            |                              |                                   |     |                         | 1 05 0 05             | 1           |                       |

DIET Analyses for adults Review:

01 600kcal day deficit or low fat diet vs usual care 18 Change in FPG mmol/l at 12 months Comparison:

Outcome:

| Study or sub-category   | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N  | Usual care<br>Mean (SD) |    |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|--------|----------------------------------|----|-------------------------|----|------|-----------------|-------------|-----------------------|
| ODES 1995   | 52     | -0.21(0.50)                      | 43 | 0.07(0.46)              |    | -    |                 | 100.00      | -0.28 [-0.47, -0.09]  |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2.4 |        |                                  | 43 |                         |    | •    |                 | 100.00      | -0.28 [-0.47, -0.09]  |
| •   |        |                                  |    |                         | -1 | -0.5 | 0 0.5           | 1           |                       |

Review: DIET Analyses for adults Comparison:

01 600kcal day deficit or low fat diet vs usual care 19 Change in SBP mmHg at 6 months Outcome:

| Study<br>or sub-category   | 60<br>N | 00kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) |             | W                | /MD (fixed)<br>95% CI |                  | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------|----------------------------------|-----|-------------------------|-------------|------------------|-----------------------|------------------|-------------|-----------------------|
| HPT 1990   | 112     | -6.90(7.41)                      | 121 | -1.80(7.70)             |             | -                |                       |                  | 100.00      | -5.10 [-7.04, -3.16]  |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |         | 1)                               | 121 |                         |             | •                |                       |                  | 100.00      | -5.10 [-7.04, -3.16]  |
|  |         |                                  |     |                         | -10<br>Favo | -5<br>urs treatm | 0<br>ent Favour       | 5 1<br>s control | 0           |                       |

Review:

DIET Analyses for adults
01 600kcal day deficit or low fat diet vs usual care Comparison: 20 Change in SBP mmHg at 12 months Outcome:

| Study or sub-category        | 6<br>N                      | 600kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) |             | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|-----------------------------|-----------------------------------|-----|-------------------------|-------------|-----------------------|-------------|-----------------------|
| ODES 1995                    | 52                          | -6.40(10.10)                      | 43  | -0.50(11.15)            | <del></del> |                       | 16.44       | -5.90 [-10.22, -1.58] |
| Wood 1988                    | 38                          | -5.70(7.90)                       | 35  | -4.10(8.00)             | -           | <del></del>           | 22.99       | -1.60 [-5.25, 2.05]   |
| Wood 1991 F                  | 31                          | -4.10(6.00)                       | 39  | -0.20(6.60)             |             | <del>-</del>          | 35.02       | -3.90 [-6.86, -0.94]  |
| Wood 1991 M                  | 40                          | -4.10(8.10)                       | 40  | 0.10(7.70)              |             | -                     | 25.55       | -4.20 [-7.66, -0.74]  |
| Total (95% CI)               | 161                         |                                   | 157 |                         | •           |                       | 100.00      | -3.78 [-5.53, -2.03]  |
| Test for heterogeneity: Ch   | $ni^2 = 2.36$ , $df = 3$ (I | P = 0.50), I <sup>2</sup> = 0%    |     |                         |             | ·                     |             |                       |
| Test for overall effect: Z = | 4.23 (P < 0.0001            | )                                 |     |                         |             |                       |             |                       |
|                              |                             |                                   |     |                         | -10 -       | 5 0 5                 | 10          |                       |

Favours treatment Favours control

Review: Comparison:

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DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care Outcome: 21 Change in SBP mmHg at 36 months

600kcal/low fat diet WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) Ν Mean (SD) 95% CI 95% CI HPT 1990 -2.31 [-4.80, 0.18] 117 -5.00(9.73) 115 -2.69(9.65) 100.00 Total (95% CI) 117 115 100.00 -2.31 [-4.80, 0.18] Test for heterogeneity: not applicable Test for overall effect: Z = 1.82 (P = 0.07)

-10

-5

Favours treatment Favours control

Favours treatment Favours control

10

Favours treatment Favours control

Review:

DIET Analyses for adults 01 600kcal day deficit or low fat diet vs usual care Comparison:

Outcome: 22 Change in DBP mmHg at 6 months

| Study or sub-category  | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------|----------------------------------|-----|-------------------------|-----|-----------------------|-------------|-----------------------|
| HPT 1990   | 112    | -5.30(7.41)                      | 121 | -2.50(7.70)             |     | -                     | 100.00      | -2.80 [-4.74, -0.86]  |
| Total (95% CI) Test for heterogeneity: not app Test for overall effect: Z = 2.83 |        |                                  | 121 |                         |     | •                     | 100.00      | -2.80 [-4.74, -0.86]  |
|  |        |                                  |     |                         | -10 | -5 0                  | 5 10        |                       |

**DIET Analyses for adults** Review: Comparison:

01 600kcal day deficit or low fat diet vs usual care 23 Change in DBP mmHg at 12 months Outcome:

| Study                        | 6                        | 00kcal/low fat diet            |     | Usual care  |     | WMD (fixed    | d) | Weight | WMD (fixed)          |
|------------------------------|--------------------------|--------------------------------|-----|-------------|-----|---------------|----|--------|----------------------|
| or sub-category              | N                        | Mean (SD)                      | N   | Mean (SD)   |     | 95% CI        |    | %      | 95% CI               |
| ODES 1995                    | 52                       | -3.40(7.21)                    | 43  | -0.70(8.52) |     |               |    | 19.56  | -2.70 [-5.91, 0.51]  |
| Wood 1988                    | 38                       | -5.60(7.30)                    | 35  | -2.60(8.10) |     | <del></del>   |    | 16.04  | -3.00 [-6.55, 0.55]  |
| Wood 1991 F                  | 31                       | -2.20(5.10)                    | 39  | 0.90(5.30)  |     | <del></del> - |    | 33.72  | -3.10 [-5.55, -0.65] |
| Wood 1991 M                  | 40                       | -2.40(6.60)                    | 40  | 2.10(5.00)  | -   | <del></del>   |    | 30.68  | -4.50 [-7.07, -1.93] |
| Total (95% CI)               | 161                      |                                | 157 |             |     | •             |    | 100.00 | -3.44 [-4.86, -2.01] |
| Test for heterogeneity: Chi  | $^{2}$ = 0.99, df = 3 (I | P = 0.80), I <sup>2</sup> = 0% |     |             |     | ·             |    |        |                      |
| Test for overall effect: Z = | 4.74 (P < 0.0000         | 1)                             |     |             |     |               |    | _      |                      |
|                              |                          |                                |     |             | -10 | -5 0          | 5  | 10     |                      |

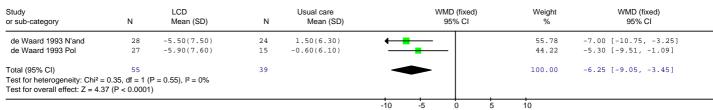
DIET Analyses for adults Review:

01 600kcal day deficit or low fat diet vs usual care 24 Change in DBP mmHg at 36 months Comparison:

Outcome:

| Study or sub-category  | 6<br>N | 00kcal/low fat diet<br>Mean (SD) | N   | Usual care<br>Mean (SD) |              | WMD<br>95% | (fixed)<br>6 CI     | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------|----------------------------------|-----|-------------------------|--------------|------------|---------------------|-------------|-----------------------|
| HPT 1990   | 117    | -4.20(8.65)                      | 115 | -2.40(8.58)             |              | -          | -                   | 100.00      | -1.80 [-4.02, 0.42]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |        |                                  | 115 |                         |              | •          | •                   | 100.00      | -1.80 [-4.02, 0.42]   |
|  |        |                                  |     |                         | -10<br>Favor | -5 (       | ) 5<br>Favours cont | 10          |                       |

DIET Analyses for adults 02 Low calorie diet (1000-1600kcal/day) vs usual care Comparison: 01 Weight change in kg at 12 months Outcome:



Favours treatment Favours control

Review: **DIET Analyses for adults** 

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Comparison: 02 Low calorie diet (1000-1600kcal/day) vs usual care

Outcome: 02 Weight change in kg at 24 months

| Study<br>or sub-category   | N  | LCD<br>Mean (SD) | N  | Usual care<br>Mean (SD) |     |          | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|------------------|----|-------------------------|-----|----------|--------------------|-------------|-----------------------|
| de Waard 1993 N'and  | 25 | -5.00(7.30)      | 21 | 2.00(6.50)              | ←   | <u> </u> |                    | 100.00      | -7.00 [-10.99, -3.01] |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 3.4 |    | )                | 21 |                         |     | _        |                    | 100.00      | -7.00 [-10.99, -3.01] |
|  |    |                  |    |                         | -10 | -5       | 0 5                | 10          |                       |

Review: **DIET Analyses for adults** 

Comparison: 02 Low calorie diet (1000-1600kcal/day) vs usual care

Outcome: 03 Weight change in kg at 36 months

| Study<br>or sub-category   | N  | LCD<br>Mean (SD) | N  | Usual care<br>Mean (SD) |          |    | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|------------------|----|-------------------------|----------|----|--------------------|-------------|-----------------------|
| de Waard 1993 N'and  | 18 | -5.00(7.30)      | 15 | 1.10(6.20)              | <b>←</b> | _  |                    | 100.00      | -6.10 [-10.71, -1.49] |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 2.6 |    |                  | 15 |                         |          |    |                    | 100.00      | -6.10 [-10.71, -1.49] |
|  |    |                  |    |                         | -10      | -5 | 0 5                | 10          |                       |

Review: **DIET Analyses for adults** 

Comparison: 02 Low calorie diet (1000-1600kcal/day) vs usual care Outcome:

04 Weight change in kg over time

| Study or sub-category | •   |             | N  | Usual care<br>Mean (SD) | WMD (fi:<br>95% ( | , | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|-----|-------------|----|-------------------------|-------------------|---|-------------|-----------------------|
| 01 de Waard 1993      |     |             |    |                         |                   |   |             |                       |
| de Waard 12 months    | 281 | -5.50(7.50) | 24 | 1.50(6.30)              | <del></del> _     |   | 56.08       | -7.00 [-9.67, -4.33]  |
| de Waard 24 months    | 25  | -5.00(7.30) | 21 | 2.00(6.50)              | <del></del>       |   | 25.09       | -7.00 [-10.99, -3.01] |
| de Waard 36 months    | 18  | -5.00(7.30) | 15 | 1.10(6.20)              | <b>←</b>          |   | 18.82       | -6.10 [-10.71, -1.49] |
|                       |     |             |    |                         | -10 -5 0          | 5 | 10          |                       |

Review: DIET Analyses for adults

03 Very low calorie diet (<1000kcal/day) vs usual care Comparison:

Outcome: 01 Weight change in kg over time

| Study<br>or sub-category | N  | VLCD<br>Mean (SD) | N  | Usual care<br>Mean (SD) |     |    | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI  |
|--------------------------|----|-------------------|----|-------------------------|-----|----|----------------------|-------------|------------------------|
| 01 Stenius-Aarniala 2000 |    |                   |    |                         |     |    |                      |             |                        |
| Stenius-Aa 14 weeks      | 19 | -14.20(9.93)      | 19 | -0.30(6.00)             | ←   |    |                      | 48.20       | -13.90 [-19.12, -8.68] |
| Stenius-Aa 12 months     | 19 | -11.10(9.06)      | 19 | 2.30(6.57)              | ←   |    |                      | 51.80       | -13.40 [-18.43, -8.37] |
|                          |    |                   |    |                         | -10 | -5 | 0 5                  | 10          |                        |

**DIET Analyses for adults** Review:

Comparison: 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat

Outcome: 01 Weight change in kg at 2 months

| Study or sub-category   | N  | LCD<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) |       | W           | MD (fixed)<br>95% CI |           | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------|----|------------------------------|-------|-------------|----------------------|-----------|-------------|-----------------------|
| Dansinger 2005  | 40 | -3.50(3.80)      | 40 | -3.80(3.60)                  |       |             | +                    |           | 100.00      | 0.30 [-1.32, 1.92]    |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0 |    |                  | 40 |                              |       |             | •                    |           | 100.00      | 0.30 [-1.32, 1.92]    |
|   |    |                  |    |                              | -10   | -5          | Ö                    | 5         | 10          |                       |
|   |    |                  |    |                              | Favou | urs treatme | ent Favo             | urs contr | ol          |                       |

04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison:

Outcome: 02 Weight change in kg at 6 months

| Study or sub-category        | N               | LCD<br>Mean (SD)               | N  | 600kcal/low fat<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight %       | WMD (fixed)<br>95% CI |
|------------------------------|-----------------|--------------------------------|----|------------------------------|-----|-----------------------|----------------|-----------------------|
| Dansinger 2005               | 40              | -3.50(5.60)                    | 40 | -3.40(5.70)                  |     | -                     | 63.51          | -0.10 [-2.58, 2.38]   |
| Shah 1996                    | 35              | -3.95(7.03)                    | 39 | -4.90(7.30)                  |     | -                     | <b>—</b> 36.49 | 0.95 [-2.32, 4.22]    |
| Total (95% CI)               | 75              |                                | 79 |                              |     | <b>*</b>              | 100.00         | 0.28 [-1.69, 2.26]    |
| Test for heterogeneity: Ch   |                 | P = 0.62), I <sup>2</sup> = 0% |    |                              |     |                       |                |                       |
| Test for overall effect: Z = | 0.28 (P = 0.78) |                                |    |                              |     |                       |                |                       |
|                              |                 |                                |    | -                            | -10 | -5 0                  | 5 10           |                       |

Favours treatment Favours control

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Review: **DIET Analyses for adults** 

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Comparison: 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat

Outcome: 03 Weight change in kg at 12 months

| Study or sub-category                                       | N  | LCD<br>Mean (SD)               | N  | 600kcal/low fat<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------------------|----|------------------------------|-----|-----------------------|-------------|-----------------------|
| Dansinger 2005  | 40 | -3.00(4.90)                    | 40 | -3.20(6.00)                  |     |                       | 59.13       | 0.20 [-2.20, 2.60]    |
| Shah 1996   | 36 | -0.82(6.15)                    | 39 | -2.45(6.61)                  |     | <del></del>           | 40.87       | 1.63 [-1.26, 4.52]    |
| Total (95% CI)  | 76 |                                | 79 |                              |     |                       | 100.00      | 0.78 [-1.06, 2.63]    |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = |    | P = 0.46), I <sup>2</sup> = 0% |    |                              |     |                       |             |                       |
|   |    |                                |    |                              | -10 | -5 0 5                | 10          |                       |

Review:

DIET Analyses for adults
04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat
04 Weight change in kg at 18 months Comparison: Outcome:

| Study or sub-category   | N  | LCD<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------|----|------------------------------|--------|-----------------------|-------------|-----------------------|
| Shah 1996   | 35 | 1.80(6.42)       | 39 | 0.40(6.03)                   |        | -                     | 100.00      | 1.40 [-1.45, 4.25]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                  | 39 |                              |        |                       | 100.00      | 1.40 [-1.45, 4.25]    |
|   |    |                  |    |                              | -10 -5 | 0 5                   | 10          |                       |

04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat 05 Weight change in kg over time Comparison: Outcome:

| Study or sub-category | N  | LCD<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 Shah 1996          |    |                  |    |                              |                       |             |                       |
| Shah 6 months         | 35 | -3.95(7.03)      | 39 | -4.90(7.30)                  | <del></del>           | 27.80       | 0.95 [-2.32, 4.22]    |
| Shah 12 months        | 36 | -0.82(6.15)      | 39 | -2.45(6.61)                  | <del></del>           | 35.58       | 1.63 [-1.26, 4.52]    |
| Shah 18 months        | 35 | 1.80(6.42)       | 39 | 0.40(6.03)                   | +-                    | 36.61       | 1.40 [-1.45, 4.25]    |
| 02 Dansinger 2005     |    |                  |    |                              |                       |             |                       |
| Dansinger 2 months    | 40 | -3.50(3.80)      | 40 | -3.80(3.60)                  | <del></del>           | 53.03       | 0.30 [-1.32, 1.92]    |
| Dansinger 6 months    | 40 | -3.50(5.60)      | 40 | -3.40(5.70)                  | <del></del>           | 22.76       | -0.10 [-2.58, 2.38]   |
| Dansinger 12 months   | 40 | -3.00(4.90)      | 40 | -3.20(6.00)                  | <del></del>           | 24.21       | 0.20 [-2.20, 2.60]    |

Review: DIET Analyses for adults

04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat 06 Change in TC mmol/l at 12 months Comparison:

Outcome:

| Study or sub-category   | N  | LCD<br>Mean (SD) | N  | 600kcal/low fat diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------|----|-----------------------------------|-----------------------|-------------|-----------------------|
| Dansinger 2005  | 40 | -0.21(0.62)      | 40 | -0.26(0.90)                       | <del>-</del>          | 100.00      | 0.05 [-0.29, 0.39]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 6 |    |                  | 40 |                                   |                       | 100.00      | 0.05 [-0.29, 0.39]    |
|   |    |                  |    |                                   | -1 -0.5 0 0.5         | 1           |                       |

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04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: 07 Change in LDLC mmol/l at 12 months 600kcal/low fat diet WMD (fixed) Weight WMD (fixed) Study LCD Ν Mean (SD) Ν Mean (SD) 95% CI or sub-category 40 -0.24(0.69) 40 -0.30(0.87) 100.00 0.06 [-0.28, 0.40] Dansinger 2005 100.00 0.06 [-0.28, 0.40] 40 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.34 (P = 0.73) -0.5 0.5 Favours treatment Favours control DIET Analyses for adults 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: Outcome: 08 Change in HDLC mmol/l at 12 months LCD 600kcal/low fat diet WMD (fixed) Weight WMD (fixed) Study or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 0.09(0.25) 40 0.08(0.26) 100.00 0.01 [-0.10, 0.12] 0.01 [-0.10, 0.12] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.18 (P = 0.86) -0.5 0.5 Favours treatment Favours control DIET Analyses for adults 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: 09 Change in TG mmol/l at 12 months Outcome: WMD (fixed) WMD (fixed) Study LCD 600kcal/low fat diet Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 -0.14(0.69) 40 0.03(1.65) 100.00 -0.17 [-0.72, 0.38] Total (95% CI) 40 -0.17 [-0.72, 0.38] Test for heterogeneity: not applicable Test for overall effect: Z = 0.60 (P = 0.55) -0.5 Ö 0.5 Favours treatment Favours control DIET Analyses for adults 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Review Comparison: Outcome: 10 Change in FPG mmol/l at 12 months

| Study<br>or sub-category   | N  | LCD<br>Mean (SD) | N  | 600kcal/low fat diet<br>Mean (SD) |    |      | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|------------------|----|-----------------------------------|----|------|--------------------|-------------|-----------------------|
| Dansinger 2005   | 40 | -0.26(1.06)      | 40 | -0.23(1.00)                       |    |      | <del> </del>       | 100.00      | -0.03 [-0.48, 0.42]   |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0. |    |                  | 40 |                                   |    |      |                    | 100.00      | -0.03 [-0.48, 0.42]   |
|  |    |                  |    |                                   | -1 | -0.5 | 0 0.5              | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Review **DIET Analyses for adults** 

04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison:

Outcome: 11 Change in DBP mmHg at 12 months

| Study or sub-category   | N  | LCD<br>Mean (SD) | N  | 600kcal/low fat diet<br>Mean (SD) |    |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------|----|-----------------------------------|----|------|-----------------|-------------|-----------------------|
| Dansinger 2005  | 40 | -2.70(13.00)     | 40 | 1.40(15.00)                       | -  |      |                 | 100.00      | -4.10 [-10.25, 2.05]  |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 1 |    |                  | 40 |                                   | _  |      |                 | 100.00      | -4.10 [-10.25, 2.05]  |
|   |    |                  |    |                                   | -1 | -0.5 | 0 0.5           | 1           |                       |

**DIET Analyses for adults** Review:

04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison:

Outcome: 12 Change in SBP mmHg at 12 months

| Study or sub-category   | N  | LCD<br>Mean (SD) | N  | 600kcal/low fat diet<br>Mean (SD) |            |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------|----|-----------------------------------|------------|------|-----------------|-------------|-----------------------|
| Dansinger 2005  | 40 | -1.70(6.40)      | 40 | -1.20(9.50)                       | <b>←</b>   | -    |                 | 100.00      | -0.50 [-4.05, 3.05]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 6 |    |                  | 40 |                                   |            |      |                 | 100.00      | -0.50 [-4.05, 3.05]   |
|   |    |                  |    |                                   | -1<br>Favo | -0.5 | 0 0.5           | 1<br>ntrol  |                       |

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04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: 13 Change in TC mmol/l at 2 months 600kcal/low fat WMD (fixed) Weight WMD (fixed) LCD Study Ν Mean (SD) Ν or sub-category 40 -0.38(1.08) 40 -0.48(1.08) 100.00 0.10 [-0.37, 0.57] Dansinger 2005 40 40 100.00 0.10 [-0.37, 0.57] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.41 (P = 0.68) -10 -5 10 Favours treatment Favours control DIET Analyses for adults 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: Outcome: 14 Change in TC mmol/l at 6 months LCD 600kcal/low fat WMD (fixed) WMD (fixed) Study Weight Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -0.21(1.08) 40 -0.16(1.08) 100.00 -0.05 [-0.52, 0.42] Total (95% CI) 100.00 -0.05 [-0.52, 0.42] Test for heterogeneity: not applicable Test for overall effect: Z = 0.21 (P = 0.84) -10 -5 Ö 10 Favours treatment DIET Analyses for adults 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: 15 Change in LDLC mmol/l at 2 months Outcome Study LCD 600kcal/low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 -0.31(0.74) 40 -0.25(0.74) 100.00 -0.06 [-0.38, 0.26] 40 Total (95% CI) 40 -0.06 [-0.38, 0.26] Test for heterogeneity: not applicable Test for overall effect: Z = 0.36 (P = 0.72) -10 -5 Ö 10 Favours treatment Favours control DIET Analyses for adults 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: 16 Change in LDLC mmol/l at 6 months LCD 600kcal/low fat WMD (fixed) Weight WMD (fixed) Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.18(0.74) 40 -0.17(0.74) 100.00 -0.01 [-0.33, 0.31] 100.00 -0.01 [-0.33, 0.31] 40 Test for heterogeneity: not applicable Test for overall effect: Z = 0.06 (P = 0.95) -10 -5 10 Favours treatment Favours control Review DIET Analyses for adults 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: Outcome 17 Change in FPG mmol/l at 2 months LCD 600kcal/low fat WMD (fixed) WMD (fixed) Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.31(1.98) 40 -0.50(1.98) 100.00 0.19 [-0.68, 1.06] 40 40 100.00 0.19 [-0.68, 1.06] Test for heterogeneity: not applicable Test for overall effect: Z = 0.43 (P = 0.67) -10 -5 ò 10 Favours control **DIET Analyses for adults** Review 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: Outcome 18 Change in FPG mmol/l at 6 months WMD (fixed) LCD 600kcal/low fat WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.21(1.98) 40 -0.46(1.98) 100.00 0.25 [-0.62, 1.12] Total (95% CI) 40 100.00 0.25 [-0.62, 1.12] Test for heterogeneity: not applicable Test for overall effect: Z = 0.56 (P = 0.57) -10 -5 ò 5 10

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04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: 19 Change in SBP mmHg at 2 months 600kcal/low fat WMD (fixed) Weight WMD (fixed) Study LCD Ν Mean (SD) Ν Mean (SD) or sub-category -4.80(12.70) 40 -4.10(12.70) 100.00 -0.70 [-6.27, 4.87] Dansinger 2005 40 40 40 100.00 -0.70 [-6.27, 4.87] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.25 (P = 0.81) -10 -5 10 Favours treatment Favours control DIET Analyses for adults 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: Outcome: 20 Change in SBP mmHg at 6 months LCD 600kcal/low fat WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -4.80(12.70) 40 -3.90(12.70) 100.00 -0.90 [-6.47, 4.67] Total (95% CI) 100.00 -0.90 [-6.47, 4.67] Test for heterogeneity: not applicable Test for overall effect: Z = 0.32 (P = 0.75) -10 -5 Ö 5 10 Favours treatment DIET Analyses for adults 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: 21 Change in DBP mmHg at 2 months Outcome Study LCD 600kcal/low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -3.10(8.30) 40 -4.80(8.30) 100.00 1.70 [-1.94, 5.34] Total (95% CI) 40 1.70 [-1.94, 5.34] Test for heterogeneity: not applicable Test for overall effect: Z = 0.92 (P = 0.36) -10 -5 Ö 10 Favours treatment Favours control Review **DIET Analyses for adults** 04 Low calorie diet (1000-1600kcal/day) vs 600kcal/day deficit or low fat Comparison: 22 Change in DBP mmHg at 6 months WMD (fixed) WMD (fixed) LCD 600kcal/low fat Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -1.80(8.30) 40 -4.00(8.30) 100.00 2.20 [-1.44, 5.84] 100.00 2.20 [-1.44, 5.84] 40 Test for heterogeneity: not applicable Test for overall effect: Z = 1.19 (P = 0.24) -10 -5 ò 10 Favours treatment Favours control Review DIET Analyses for adults 05 Very low calorie diet (<1000kcal/day) vs 600kcal day deficit or low fat Comparison: Outcome 01 Weight change in kg at 24 months VLCD 600kcal/low fat WMD (fixed) WMD (fixed) Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Simonen 2000 10 -6.70(7.81) 6 -2.00(6.48) 100.00 -4.70 [-11.79, 2.39] -10 10 Favours treatment Favours control Review **DIET Analyses for adults** Comparison 06 Very low calorie diet (<1000kcal/day) vs LCD Outcome 01 Weight change in kg at 1 month WMD (fixed) WMD (fixed) Study VI CD LCD Weight or sub-category Mean (SD) Mean (SD) 95% CI 31 -3.72(1.65) 32 -2.37(2.00) 100.00 -1.35 [-2.25, -0.45] Viegener 1990 -10 -5 'n 10 Favours treatment Favours control **DIET Analyses for adults** 06 Very low calorie diet (<1000kcal/day) vs LCD Comparison: Outcome 02 Weight change in kg at 2 months Study VLCD LCD WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Viegener 1990 31 -5.91(2.88) 32 -3.91(3.19) 100.00 -2.00 [-3.50, -0.50] -10 10 0

Favours control

Favours treatment

DIET Analyses for adults 06 Very low calorie diet (<1000kcal/day) vs LCD Comparison: 03 Weight change in kg at 3 months LCD WMD (fixed) Weight WMD (fixed) Study VLCD Ν Mean (SD) Ν Mean (SD) 31 -7.88(3.17) 32 -5.51(4.12) 100.00 -2.37 [-4.18, -0.56] Viegener 1990 -10 . -5 10 Ö 1 Favours treatment Favours control Review: **DIET Analyses for adults** 06 Very low calorie diet (<1000kcal/day) vs LCD Comparison: Outcome 04 Weight change in kg at 4 months WMD (fixed) VLCD LCD Weight WMD (fixed) Mean (SD) Mean (SD) or sub-category Ν Ν 95% CI 95% CI -8.89(3.78) -6.98(4.67) 100.00 -1.91 [-4.00. 0.18] Viegener 1990 31 32 -10 10 2 Favours treatment Favours control Review: **DIET Analyses for adults** Comparison: Outcome: 06 Very low calorie diet (<1000kcal/day) vs LCD 05 Weight change in kg at 5 months WMD (fixed) Study VLCD LCD Weight % WMD (fixed) or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 31 -9.63(4.44) 32 -8.02(5.23) -1.61 [-4.00, 0.78] Viegener 1990 100.00 -10 . -5 ò 5 10 3 Favours control Review **DIET Analyses for adults** 06 Very low calorie diet (<1000kcal/day) vs LCD Comparison: Outcome 06 Weight change in kg at 6 months VLCD LCD WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Viegener 1990 31 -10.19(5.06) -4.05(7.06) 32 -8.87(5.56) -1.47(6.33) 69.44 15.81 -1.32 [-3.94, 1.30] [-8.08, 2.92] 12 -2.58 Wing 6 months conc 11 Wing 6 months space 12 -1.31(6.29) -3.12(6.80) 14.75 1.81 [-3.88, 7.50] Total (95% CI) 53 100.00 -1.06 [-3.24, 1.13] Test for heterogeneity: Chi² = 1.31, df = 2 (P = 0.52),  $I^2$  = 0% Test for overall effect: Z = 0.95 (P = 0.34) -10 -5 ò 10 4 Favours control Favours treatment Review **DIET Analyses for adults** 06 Very low calorie diet (<1000kcal/day) vs LCD Comparison: Outcome 07 Weight change in kg at 12 months LCD WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Viegener 1990 3.0 -8.97(6.72) -1.95(6.47) 30 -8.95(7.26) 0.38(6.02) 53.09 -0.02 [-3.56, 3.52] 11 12 -2.33 [-7.45, 2.79] Wing 6 months conc 25.37 Wing 6 months space 12 -0.58(6.08) -2.69(6.68) 21.54 2.11 [-3.45, 7.67] 51 100.00 -0.15 [-2.73, 2.43] Total (95% CI) Test for heterogeneity:  $Chi^2 = 1.34$ , df = 2 (P = 0.51),  $I^2 = 0\%$ Test for overall effect: Z = 0.11 (P = 0.91) -10 -5 'n 10 5 Favours treatment Favours control Review DIET Analyses for adults 06 Very low calorie diet (<1000kcal/day) vs LCD Comparison: Outcome 08 Weight change in kg at 18 months Study WMD (fixed) LCD WMD (fixed) Weight or sub-category Mean (SD) Ν Mean (SD) 95% CI 95% CI Pavlou 1989 1ga -12.40(9.42) 10 -9.19(8.52) 37.56 -3.21 [-10.05, 3.63] 0.12 [-5.19, 5.43] Pavlou 1989 1hb 16 -3.45(6.89)11 -3.57(6.93) 62.44 -1.13 [-5.32, 3.06] Total (95% CI) 21 100.00 Test for heterogeneity:  $Chi^2 = 0.57$ , df = 1 (P = 0.45),  $I^2 = 0\%$ Test for overall effect: Z = 0.53 (P = 0.60) 10 6 Favours treatment Favours control

DIET Analyses for adults

06 Very low calorie diet (<1000kcal/day) vs LCD Comparison:

Outcome: 09 Weight change in kg over time

| Study or sub-category | VLCD         LCD         WMD (fixed)           ry         N         Mean (SD)         N         Mean (SD)         95% CI |              | Weight<br>% | WMD (fixed)<br>95% CI |                  |         |                      |
|-----------------------|--|--------------|-------------|-----------------------|------------------|---------|----------------------|
| 01 Viegener 1990      |  |              |             |                       |                  |         |                      |
| Viegener 1 month      | 31   | -3.72(1.65)  | 32          | -2.37(2.00)           | -                | 47.05   | -1.35 [-2.25, -0.45] |
| Viegener 2 months     | 31   | -5.91(2.88)  | 32          | -3.91(3.19)           | <del></del> -    | 17.10   | -2.00 [-3.50, -0.50] |
| Viegener 3 months     | 31   | -7.88(3.17)  | 32          | -5.51(4.12)           | <del></del> -    | 11.72   | -2.37 [-4.18, -0.56] |
| Viegener 4 months     | 31   | -8.89(3.78)  | 32          | -6.98(4.67)           | <del></del>      | 8.76    | -1.91 [-4.00, 0.18]  |
| Viegener 5 months     | 31   | -9.63(4.44)  | 32          | -8.02(5.23)           | <del></del>      | 6.72    | -1.61 [-4.00, 0.78]  |
| Viegener 6 months     | 31   | -10.19(5.06) | 32          | -8.87(5.56)           | <del></del>      | 5.59    | -1.32 [-3.94, 1.30]  |
| Viegener 12 months    | 30   | -8.97(6.72)  | 30          | -8.95(7.26)           | <del>- +</del> - | 3.07    | -0.02 [-3.56, 3.52]  |
| 02 Wing 1984          |  |              |             |                       |                  |         |                      |
| Wing 6 months conc    | 11   | -4.05(7.06)  | 12          | -1.47(6.33)           | <del></del>      | 24.60   | -2.58 [-8.08, 2.92]  |
| Wing 12 months conc   | 11   | -1.95(6.47)  | 12          | 0.38(6.02)            | <del></del>      | 28.36   | -2.33 [-7.45, 2.79]  |
| Wing 6 months space   | 12   | -1.31(6.29)  | 9           | -3.12(6.80)           | <del> </del>     | 22.95   | 1.81 [-3.88, 7.50]   |
| Wing 12 months space  | 12   | -0.58(6.08)  | 9           | -2.69(6.68)           | -                | _ 24.08 | 2.11 [-3.45, 7.67]   |

Favours treatment Favours control

Favours treatment Favours control

Review: **DIET Analyses for adults** 

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Comparison:

07 Low fat diet vs other weight reducing diets 01 Weight change in kg at 1 month Outcome:

| Study or sub-category  | N  | Low fat<br>Mean (SD) | N  | Other<br>Mean (SD) |       |            | MD (fixed)<br>95% CI |           | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|----------------------|----|--------------------|-------|------------|----------------------|-----------|-------------|-----------------------|
| Baron 1986   | 68 | -2.80(6.71)          | 63 | -3.90(7.02)        |       |            | -                    |           | 100.00      | 1.10 [-1.26, 3.46]    |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 0.9 |    |                      | 63 |                    |       |            |                      |           | 100.00      | 1.10 [-1.26, 3.46]    |
|  |    |                      |    |                    | -10   | -5         | 0                    | 5 1       | 0           |                       |
|  |    |                      |    |                    | Favou | rs treatme | nt Favours           | s control |             |                       |

**DIET Analyses for adults** Review:

07 Low fat diet vs other weight reducing diets
02 Weight change in kg at 3 months Comparison: Outcome:

WMD (fixed) WMD (fixed) Study Low fat Other Weight Mean (SD) Mean (SD) 95% CI 95% CI or sub-category Baron 1986 66 -3.70(6.96) 63 -5.00(7.33) 100.00 1.30 [-1.17, 3.77] Total (95% CI) 63 100.00 1.30 [-1.17, 3.77] Test for heterogeneity: not applicable Test for overall effect: Z = 1.03 (P = 0.30) -10 -5 10

DIET Analyses for adults

07 Low fat diet vs other weight reducing diets 03 Weight change in kg at 4 months Comparison: Outcome:

| Study or sub-category  | N        | Low fat<br>Mean (SD)              | N        | Other<br>Mean (SD)         |     | WMD (fixed)<br>95% CI |   | Weight<br>%    | WMD (fixed)<br>95% CI                       |
|--|----------|-----------------------------------|----------|----------------------------|-----|-----------------------|---|----------------|---|
| Pascale 1995 FH<br>Pascale 1995 NIDDM  | 16<br>15 | -7.40(4.00)<br>-7.70(3.60)        | 13<br>16 | -6.90(4.70)<br>-4.70(3.90) |     |                       |   | 40.20<br>59.80 | -0.50 [-3.72, 2.72]<br>-3.00 [-5.64, -0.36] |
| Total (95% CI) Test for heterogeneity: Chi² = Test for overall effect: Z = 1.9 |          | P = 0.24), I <sup>2</sup> = 27.8% | 29       |                            |     |                       |   | 100.00         | -1.99 [-4.04, 0.05]                         |
|  |          |                                   |          |                            | -10 | -5 0                  | 5 | 10             |   |

DIET Analyses for adults 07 Low fat diet vs other weight reducing diets Review: Comparison:

Outcome: 04 Weight change in kg at 6 months

| Study<br>or sub-category  | N  | Low fat<br>Mean (SD) | N  | Other<br>Mean (SD) |       |              | ID (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|----------------------|----|--------------------|-------|--------------|---------------------|-------------|-----------------------|
| Harvey-Berino 1998  | 28 | -5.20(4.60)          | 29 | -11.80(4.90)       |       |              | _                   | 48.92       | 6.60 [4.13, 9.07]     |
| McManus 2001  | 23 | -5.10(4.60)          | 31 | -4.90(4.30)        |       | _            | <del>+</del> -      | 51.08       | -0.20 [-2.61, 2.21]   |
| Total (95% CI)  | 51 |                      | 60 |                    |       |              |                     | 100.00      | 3.13 [1.40, 4.85]     |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 3.5 |    |                      |    |                    |       |              |                     |             |                       |
|   |    |                      |    |                    | -10   | -5           | 0 5                 | 10          |                       |
|   |    |                      |    |                    | Favou | ire treatmen | t Favoure cor       | atrol       |                       |

DIET Analyses for adults

Comparison: 07 Low fat diet vs other weight reducing diets Outcome: 05 Weight change in kg at 12 months

| Study or sub-category   | N   | Low fat<br>Mean (SD)               | N   | Other<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|------------------------------------|-----|--------------------|-----------------------|-------------|-----------------------|
| Baron 1986  | 61  | -1.60(6.37)                        | 59  | -2.30(6.57)        |                       | 49.14       | 0.70 [-1.62, 3.02]    |
| Harvey-Berino 1998  | 26  | -3.00(6.76)                        | 22  | -8.70(8.38)        |                       | 13.87       | 5.70 [1.34, 10.06]    |
| McManus 2001  | 13  | -5.00(7.30)                        | 27  | -4.80(5.20)        | <del></del>           | 13.46       | -0.20 [-4.63, 4.23]   |
| Pascale 1995 FH   | 16  | -3.00(8.40)                        | 13  | -3.50(7.40)        |                       | 7.96        | 0.50 [-5.26, 6.26]    |
| Pascale 1995 NIDDM  | 15  | -5.20(7.30)                        | 16  | -0.96(3.70)        |                       | 15.57       | -4.24 [-8.36, -0.12]  |
| Total (95% CI)  | 131 |                                    | 137 |                    | •                     | 100.00      | 0.49 [-1.14, 2.11]    |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 0.5 |     | (P = 0.03), I <sup>2</sup> = 62.6% |     |                    |                       |             |                       |
|   |     |                                    |     |                    | -10 -5 0 5            | 10          |                       |

Review: DIET Analyses for adults

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Comparison: 07 Low fat diet vs other weight reducing diets

Outcome: 06 Weight change in kg at 18 months

| Study or sub-category  | N        | Low fat<br>Mean (SD)      | N        | Other<br>Mean (SD)         |     |    | (fixed)<br>% CI | Weight<br>%    | WMD (fixed)<br>95% CI                   |
|--|----------|---------------------------|----------|----------------------------|-----|----|-----------------|----------------|---|
| Harvey-Berino 1998<br>McManus 2001   | 26<br>30 | -1.80(6.42)<br>2.90(7.70) | 22<br>31 | -7.50(8.04)<br>-4.10(6.50) |     |    |                 | 42.47<br>57.53 | 5.70 [1.53, 9.87]<br>7.00 [3.42, 10.58] |
| Total (95% CI) Test for heterogeneity: Chi <sup>2</sup> Test for overall effect: Z = 4.0 |          |                           | 53       |                            |     |    | •               | 100.00         | 6.45 [3.73, 9.16]                       |
|  |          |                           |          |                            | -10 | -5 | 0 5             | 10             |   |

Favours treatment Favours control

Review: Comparison:

DIET Analyses for adults
07 Low fat diet vs other weight reducing diets

07 Weight change in kg over time

| Study or sub-category | N  | Low fat<br>Mean (SD) | N  | Other<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|----------------------|----|--------------------|-----------------------|-------------|-----------------------|
| 01 Baron 1986         |    |                      |    |                    |                       |             |                       |
| Baron 1 month         | 68 | -2.80(6.71)          | 63 | -3.90(7.02)        | <del>    •</del>      | 33.96       | 1.10 [-1.26, 3.46]    |
| Baron 3 months        | 66 | -3.70(6.96)          | 63 | -5.00(7.33)        | <del>    -  </del>    | 30.92       | 1.30 [-1.17, 3.77]    |
| Baron 12 months       | 61 | -1.60(6.37)          | 59 | -2.30(6.57)        | <del>- -</del> -      | 35.12       | 0.70 [-1.62, 3.02]    |
| 02 Harvey-Berino 1998 |    |                      |    |                    |                       |             |                       |
| Harvey-Berino 6m      | 28 | -5.20(4.60)          | 29 | -11.80(4.90)       |                       | 59.88       | 6.60 [4.13, 9.07]     |
| Harvey-Berino 12m     | 26 | -3.00(6.76)          | 22 | -8.70(8.38)        |                       | 19.16       | 5.70 [1.34, 10.06]    |
| Harvey-Berino 18m     | 26 | -1.80(6.42)          | 22 | -7.50(8.04)        |                       | 20.96       | 5.70 [1.53, 9.87]     |
| 03 McManus 2001       |    |                      |    |                    |                       |             |                       |
| McManus 6 months      | 23 | -5.10(4.60)          | 31 | -4.90(4.30)        | <del></del>           | 57.10       | -0.20 [-2.61, 2.21]   |
| McManus 12 months     | 13 | -5.00(7.30)          | 27 | -4.80(5.20)        | <del></del> _         | 16.97       | -0.20 [-4.63, 4.23]   |
| McManus 18 months     | 30 | 2.90(7.70)           | 31 | -4.10(6.50)        | <del></del>           | 25.93       | 7.00 [3.42, 10.58]    |
| 04 Pascale 1995       |    |                      |    |                    |                       |             |                       |
| Pascale FH 4m         | 16 | -7.40(4.00)          | 13 | -6.90(4.70)        |                       | 29.30       | -0.50 [-3.72, 2.72]   |
| Pascale FH 12m        | 16 | -3.00(8.40)          | 13 | -3.50(7.40)        |                       | 9.17        | 0.50 [-5.26, 6.26]    |
| Pascale NIDDM 4m      | 15 | -7.70(3.60)          | 16 | -4.70(3.90)        | <del></del> -         | 43.58       | -3.00 [-5.64, -0.36]  |
| Pascale NIDDM 12m     | 15 | -5.20(7.30)          | 16 | -0.96(3.70)        | <del></del>           | 17.94       | -4.24 [-8.36, -0.12]  |

Review:

DIET Analyses for adults 07 Low fat diet vs other weight reducing diets 08 Change in TC mmol/l at 4 months Comparison:

Outcome:

| Study or sub-category | N  | Low fat<br>Mean (SD) | N  | Other<br>Mean (SD) |    | WMD (fixed<br>95% CI | )   | Weight<br>% | WMD (fixed)<br>95% CI |  |
|-----------------------|----|----------------------|----|--------------------|----|----------------------|-----|-------------|-----------------------|--|
| Pascale 1995 FH       | 16 | -0.42(0.65)          | 13 | -0.23(0.56)        |    |                      |     | 52.53       | -0.19 [-0.63, 0.25]   |  |
| Pascale 1995 NIDDM    | 15 | -0.33(0.70)          | 16 | -0.23(0.61)        |    | -                    |     | 47.47       | -0.10 [-0.56, 0.36]   |  |
|                       |    |                      |    |                    | -1 | -0.5 0               | 0.5 | 1           |                       |  |

DIET Analyses for adults
07 Low fat diet vs other weight reducing diets Comparison:

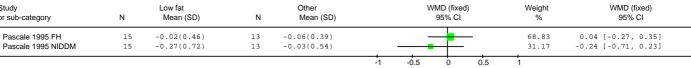
Outcome: 09 Change in TC mmol/l at 12 months

| Study or sub-category                 | N        | Low fat<br>Mean (SD)      | N        | Other<br>Mean (SD)       |                | WMD<br>95% | ` ' | Weight<br>%    | WMD (fixed)<br>95% CI                      |
|---------------------------------------|----------|---------------------------|----------|--------------------------|----------------|------------|-----|----------------|--|
| Pascale 1995 FH<br>Pascale 1995 NIDDM | 16<br>15 | -0.18(0.28)<br>0.15(0.59) | 13<br>16 | 0.24(0.56)<br>0.08(0.52) | -              | <u> </u>   |     | 58.02<br>41.98 | -0.42 [-0.75, -0.09]<br>0.07 [-0.32, 0.46] |
|                                       |          |                           |          |                          | <del>-</del> 1 | -0.5       | 0.5 | 1              |  |

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**DIET Analyses for adults** Comparison: 07 Low fat diet vs other weight reducing diets 10 Change in LDLC mmol/l at 4 months Outcome: Study Low fat Ν



Favours treatment Favours control

DIET Analyses for adults Review:

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07 Low fat diet vs other weight reducing diets 11 Change in LDLC mmol/l at 12 months Comparison: Outcome:

| Study or sub-category                 | N        | Low fat<br>Mean (SD)      | N        | Other<br>Mean (SD)       |             | WMD (fixed)<br>95% CI | Weight<br>%    | WMD (fixed)<br>95% CI                      |
|---------------------------------------|----------|---------------------------|----------|--------------------------|-------------|-----------------------|----------------|--|
| Pascale 1995 FH<br>Pascale 1995 NIDDM | 15<br>15 | -0.08(0.60)<br>0.02(0.59) | 13<br>13 | 0.31(0.48)<br>0.12(0.58) | _           | -                     | 54.05<br>45.95 | -0.39 [-0.79, 0.01]<br>-0.10 [-0.53, 0.33] |
|                                       |          |                           |          |                          | <del></del> | 0.5                   | +              |  |

Favours treatment Favours control

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Favours treatment Favours control

Favours treatment Favours control

Review: **DIET Analyses for adults** 

07 Low fat diet vs other weight reducing diets 12 Change in HDLC mmol/l at 4 months Comparison Outcome:

| Study or sub-category | N  | Low fat<br>Mean (SD) | N  | Other<br>Mean (SD) |    | WMD<br>95% |          | Weight<br>% | WMD (fixed)<br>95% CI |   |
|-----------------------|----|----------------------|----|--------------------|----|------------|----------|-------------|-----------------------|---|
| Pascale 1995 FH       | 16 | -0.25(0.20)          | 13 | -0.14(0.13)        |    | -          |          | 45.34       | -0.11 [-0.23, 0.01]   |   |
| Pascale 1995 NIDDM    | 15 | -0.12(0.17)          | 16 | -0.14(0.14)        |    | . 🕇        | <b>⊢</b> | 54.66       | 0.02 [-0.09, 0.13]    |   |
|                       |    |                      |    |                    | -1 | -0.5       | 0.5      | 1           |                       | _ |

Favours control Favours treatment

DIET Analyses for adults Review: Comparison:

07 Low fat diet vs other weight reducing diets Outcome 13 Change in HDLC mmol/l at 12 months

Study Low fat Other Mean (SD) WMD (fixed) Weight WMD (fixed) 95% CI Mean (SD) Ν 95% CI or sub-category -0.01 [-0.17, 0.15] 0.07 [-0.05, 0.19] Pascale 1995 FH 16 -0.13(0.22) 13 -0.12(0.22) 37.19 Pascale 1995 NIDDM -0.05(0.21) -0.12(0.13) 15 16 62.81

Favours treatment

DIET Analyses for adults Review: Comparison:

07 Low fat diet vs other weight reducing diets Outcome: 14 Change in TG mmol/l at 4 months

| Study<br>or sub-category | N  | Low fat<br>Mean (SD) | N  | Other<br>Mean (SD) |    | WMD (fixed)<br>95% CI |              | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------|----|----------------------|----|--------------------|----|-----------------------|--------------|-------------|-----------------------|
| Pascale 1995 FH          | 16 | -0.25(0.82)          | 13 | -0.06(0.36)        |    |                       |              | 70.50       | -0.19 [-0.64, 0.26]   |
| Pascale 1995 NIDDM       | 15 | -0.24(1.24)          | 16 | -0.27(0.59)        |    |                       | <del>-</del> | 29.50       | 0.03 [-0.66, 0.72]    |
|                          |    |                      |    |                    | -1 | -0.5                  | 0 0.5        | 1           |                       |

Review

DIET Analyses for adults 07 Low fat diet vs other weight reducing diets Comparison: Outcome 15 Change in TG mmol/l at 12 months

WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Pascale 1995 FH Pascale 1995 NIDDM -0.14 [-0.67, 0.39] -0.32 [-1.29, 0.65] 16 -0.03(0.99) 13 0.11(0.40) 76.92 15 -0.16(1.79)0.16(0.71) 16 23.08

-0.5 0.5 Favours control Favours treatment

DIET Analyses for adults

07 Low fat diet vs other weight reducing diets Comparison: 16 3Change in FPG mmol/l at 4 months

| Study<br>or sub-category | N  | Low fat<br>Mean (SD) | N  | Other<br>Mean (SD) |          |      | ID (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------|----|----------------------|----|--------------------|----------|------|---------------------|-------------|-----------------------|
| Pascale 1995 FH          | 16 | -0.36(0.83)          | 13 | -0.32(0.59)        |          |      |                     | 94.85       | -0.04 [-0.56, 0.48]   |
| Pascale 1995 NIDDM       | 15 | -2.85(2.24)          | 16 | -2.80(3.90)        | <b>←</b> |      | <del>-</del>        | 5.15        | -0.05 [-2.27, 2.17]   |
|                          |    |                      |    |                    | -1       | -0.5 | 0 0.5               | 1           |                       |

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**DIET Analyses for adults** Comparison: 07 Low fat diet vs other weight reducing diets 17 Change in FPG mmol/l at 12 months WMD (fixed) Weight WMD (fixed) Study Other Low fat Ν Mean (SD) Ν Mean (SD) 95% CI 16 -0.38(1.70) 13 -0.68(0.74) 82.61 0.30 [-0.63, 1.23] Pascale 1995 FH Pascale 1995 NIDDM 15 -1.11(3.42) 16 -0.48(2.11) 17.39 -0.63 [-2.65, 1.39] -0.5 0.5 Favours treatment Favours control Review: **DIET Analyses for adults** 07 Low fat diet vs other weight reducing diets 18 Change in %HbA1c at 4 months Comparison: Outcome WMD (fixed) Study WMD (fixed) Low fat Other Weight Ν 95% CI or sub-category Mean (SD) Mean (SD) 95% CI Pascale 1995 NIDDM 15 -0.70(1.50) 16 -1.10(1.80) **→** 100.00 0.40 [-0.76, 1.56] -0.5 ò 0.5 Favours control DIET Analyses for adults
07 Low fat diet vs other weight reducing diets Review Comparison: 19 Change in %HbA1c at 12 months WMD (fixed) Weight WMD (fixed) Other or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Pascale 1995 NIDDM 15 -0.03(1.90) 16 0.21(1.70) **→** 100.00 -0.24 [-1.51, 1.03] -0.5 Favours treatment Favours control Review **DIET Analyses for adults** 07 Low fat diet vs other weight reducing diets 20 Change in TC in mmol/l at 1 month Comparison Outcome WMD (fixed) WMD (fixed) Study Low fat Other Weight Mean (SD) Ν Mean (SD) or sub-category Ν 95% CI 95% CI % Baron 1986 68 -0.42(1.08) 63 -0.14(1.08) 100.00 -0.28 [-0.65, 0.09] -0.28 [-0.65, 0.09] Total (95% CI) 68 63 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 1.48 (P = 0.14) -10 10 Favours treatment Favours control Review: **DIET Analyses for adults** 07 Low fat diet vs other weight reducing diets 21 Change in TC in mmol/l at 3 months Comparison: Outcome: Study Low fat Other WMD (fixed) Weight WMD (fixed) Mean (SD) Mean (SD) or sub-category 95% CI 66 -0.10(1.08) 63 0.13(1.08) 100.00 -0.23 [-0.60, 0.14] Baron 1986 -0.23 [-0.60, 0.14] Total (95% CI) 63 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 1.21 (P = 0.23) -10 -5 10 Favours treatment Favours control DIET Analyses for adults 07 Low fat diet vs other weight reducing diets 22 Change in LDLC mmol/l at 1 month Comparison Outcome WMD (fixed) WMD (fixed) Study Other Low fat Weight Mean (SD) Ν Mean (SD) 95% CI or sub-category Baron 1986 68 -0.05(0.74) 62 0.12(0.74) 100.00 -0.17 [-0.42, 0.08] 62 100.00 -0.17 [-0.42, 0.08] Total (95% CI) 68 Test for heterogeneity: not applicable Test for overall effect: Z = 1.31 (P = 0.19) -10 -5 0 10 Favours treatment Favours control **DIET Analyses for adults** Comparison: Outcome: 07 Low fat diet vs other weight reducing diets 23 Change in LDLC mmol/l at 3 months WMD (fixed) WMD (fixed) Study Low fat Other Weight or sub-category Ν Mean (SD) N Mean (SD) 95% CI 95% CI 65 0.15(0.74) 63 0.32(0.74) 100.00 -0.17 [-0.43, 0.09] Baron 1986 Total (95% CI) 63 100.00 -0.17 [-0.43, 0.09] Test for overall effect: Z = 1.30 (P = 0.19) -10 -5 10 Favours treatment Favours control

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**DIET Analyses for adults** Comparison: 07 Low fat diet vs other weight reducing diets 24 Change in TG mmol/l at 1 month WMD (fixed) Weight WMD (fixed) Study Other Low fat Ν Mean (SD) Ν Mean (SD) or sub-category -0.29(0.96) 61 -0.22(0.96) 100.00 -0.07 [-0.40, 0.26] Baron 1986 66 61 100.00 -0.07 [-0.40, 0.26] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.41 (P = 0.68) -10 -5 10 Favours treatment Favours control **DIET** Analyses for adults Comparison: 07 Low fat diet vs other weight reducing diets Outcome: 25 Change in TG mmol/l at 3 months WMD (fixed) WMD (fixed) Study Low fat Other Weight Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Baron 1986 66 -0.19(0.96) 63 -0.16(0.96) 100.00 -0.03 [-0.36, 0.30] Total (95% CI) 63 100.00 -0.03 [-0.36, 0.30] Test for heterogeneity: not applicable Test for overall effect: Z = 0.18 (P = 0.86) -10 -5 Ö 10 Favours control Favours treatment **DIET Analyses for adults** Comparison: 07 Low fat diet vs other weight reducing diets 26 Change in FPG mmol/l at 1 month Outcome Other WMD (fixed) WMD (fixed) Study Weight Low fat or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Baron 1986 -0.06(1.98) 56 -0.18(1.98) 100.00 0.12 [-0.61, 0.85] Total (95% CI) 0.12 [-0.61, 0.85] Test for heterogeneity: not applicable Test for overall effect: Z = 0.32 (P = 0.75) -10 -5 Ö 10 Favours treatment Favours control DIET Analyses for adults 07 Low fat diet vs other weight reducing diets Comparison: 27 Change in FPG mmol/l at 3 months WMD (fixed) Low fat Other WMD (fixed) Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Baron 1986 66 -0.18(1.98) 63 -0.19(1.98) 100.00 0.01 [-0.67, 0.69] 63 100.00 0.01 [-0.67, 0.69] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.03 (P = 0.98) -10 -5 10 Favours treatment Favours control Review **DIET Analyses for adults** 08 Protein sparing modified fast vs 600kcal day deficit or low fat Comparison: Outcome 01 Weight change in kg at 2 months PSMF 600kcal/low fat WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -3.60(3.30) 40 -3.80(3.60) 100.00 0.20 [-1.31, 1.71] 40 40 100.00 0.20 [-1.31, 1.71] Test for heterogeneity: not applicable Test for overall effect: Z = 0.26 (P = 0.80) -10 -5 5 10 Favours control **DIET Analyses for adults** Review 08 Protein sparing modified fast vs 600kcal day deficit or low fat Comparison: Outcome 02 Weight change in kg at 3 months WMD (fixed) PSMF 600kcal/low fat WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Foster 2003 33 -6.71(4.94) 30 -2.65(3.64) 100.00 -4.06 [-6.19, -1.93] Total (95% CI) 30 100.00 -4.06 [-6.19, -1.93] Test for heterogeneity: not applicable Test for overall effect: Z = 3.74 (P = 0.0002) -10 -5 ò 5 10 Favours control

08 Protein sparing modified fast vs 600kcal day deficit or low fat 03 Weight change in kg at 6 months Comparison:

Outcome:

| Study or sub-category                                      | N   | PSMF<br>Mean (SD)                 | N   | 600kcal/low fat<br>Mean (SD) |     |    | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|-----------------------------------|-----|------------------------------|-----|----|-----------------|---|-------------|-----------------------|
| Dansinger 2005   | 40  | -3.20(4.90)                       | 40  | -3.40(5.70)                  |     | _  |                 |   | 37.74       | 0.20 [-2.13, 2.53]    |
| Foster 2003  | 33  | -6.91(6.42)                       | 30  | -3.15(5.50)                  |     |    |                 |   | 23.61       | -3.76 [-6.70, -0.82]  |
| Stern 2004   | 64  | -5.70(8.60)                       | 68  | -1.80(3.90)                  |     | -  |                 |   | 38.65       | -3.90 [-6.20, -1.60]  |
| Total (95% CI)   | 137 |                                   | 138 |                              |     |    |                 |   | 100.00      | -2.32 [-3.75, -0.89]  |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |     | P = 0.03), I <sup>2</sup> = 72.3% |     |                              |     |    |                 |   |             |                       |
|  |     |                                   |     |                              | -10 | -5 | Ö               | 5 | 10          |                       |

Favours treatment Favours control

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Favours treatment Favours control

DIET Analyses for adults

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08 Protein sparing modified fast vs 600kcal day deficit or low fat 04 Weight change in kg at 12 months Comparison: Outcome:

| Study or sub-category        | N                        | PSMF<br>Mean (SD)                 | N   | 600kcal/low fat<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|------------------------------|--------------------------|-----------------------------------|-----|------------------------------|-----|-----------------------|----------|-----------------------|
| Dansinger 2005               | 40                       | -2.10(4.80)                       | 40  | -3.20(6.00)                  |     | <b>——</b>             | 45.40    | 1.10 [-1.28, 3.48]    |
| Foster 2003                  | 33                       | -4.34(6.61)                       | 30  | -2.46(6.19)                  |     | <del></del>           | 25.76    | -1.88 [-5.04, 1.28]   |
| Stern 2004                   | 62                       | -5.10(8.70)                       | 64  | -3.10(8.40)                  |     | <del></del>           | 28.84    | -2.00 [-4.99, 0.99]   |
| Total (95% CI)               | 135                      |                                   | 134 |                              |     |                       | 100.00   | -0.56 [-2.17, 1.04]   |
| Test for heterogeneity: Ch   | $i^2 = 3.43$ , df = 2 (F | P = 0.18), I <sup>2</sup> = 41.7% |     |                              |     | ٦                     |          |                       |
| Test for overall effect: Z = | 0.69 (P = 0.49)          |                                   |     |                              |     |                       |          |                       |
|                              |                          |                                   |     |                              | -10 | -5 0 5                | 10       |                       |

DIET Analyses for adults

08 Protein sparing modified fast vs 600kcal day deficit or low fat 05 Weight change in kg over time Comparison: Outcome:

| Study or sub-category | N  | PSMF<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|-------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 Dansinger 2005     |    |                   |    |                              |                       |             |                       |
| Dansinger 2 months    | 40 | -3.60(3.30)       | 40 | -3.80(3.60)                  | <del>_</del> _        | 54.76       | 0.20 [-1.31, 1.71]    |
| Dansinger 6 months    | 40 | -3.20(4.90)       | 40 | -3.40(5.70)                  |                       | 23.12       | 0.20 [-2.13, 2.53]    |
| Dansinger 12 months   | 40 | -2.10(4.80)       | 40 | -3.20(6.00)                  | +-                    | 22.12       | 1.10 [-1.28, 3.48]    |
| 02 Stern 2004         |    |                   |    |                              |                       |             |                       |
| Stern 6 months        | 64 | -5.70(8.60)       | 68 | -1.80(3.90)                  |                       | 62.75       | -3.90 [-6.20, -1.60]  |
| Stern 12 months       | 62 | -5.10(8.70)       | 64 | -3.10(8.40)                  | <del></del>           | 37.25       | -2.00 [-4.99, 0.99]   |
| 03 Foster 2003        |    |                   |    |                              |                       |             |                       |
| Foster 3 months       | 33 | -6.71(4.94)       | 30 | -2.65(3.64)                  |                       | 50.57       | -4.06 [-6.19, -1.93]  |
| Foster 6 months       | 33 | -6.91(6.42)       | 30 | -3.15(5.50)                  |                       | 26.46       | -3.76 [-6.70, -0.82]  |
| Foster 12 months      | 33 | -4.34(6.61)       | 30 | -2.46(6.19)                  | <del></del>           | 22.96       | -1.88 [-5.04, 1.28]   |
| -                     |    |                   |    |                              | -10 -5 0 5            | 10          |                       |

DIET Analyses for adults 08 Protein sparing modified fast vs 600kcal day deficit or low fat 06 Change in TC mmol/l at 12 months Comparison:

Outcome:

| Study or sub-category          | N                        | PSMF<br>Mean (SD)              | N   | 600kcal/low fat<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|--------------------------|--------------------------------|-----|------------------------------|----|-----------------------|-------------|-----------------------|
| Dansinger 2005                 | 40                       | -0.11(0.59)                    | 40  | -0.26(0.90)                  |    |                       | 25.94       | 0.15 [-0.18, 0.48]    |
| Foster 2003                    | 33                       | 0.01(0.50)                     | 30  | -0.14(0.40)                  |    | +-                    | 58.17       | 0.15 [-0.07, 0.37]    |
| Stern 2004                     | 44                       | 0.16(1.11)                     | 43  | -0.21(0.91)                  |    | + -                   | 15.89       | 0.37 [-0.06, 0.80]    |
| Total (95% CI)                 | 117                      |                                | 113 |                              |    |                       | 100.00      | 0.18 [0.02, 0.35]     |
| Test for heterogeneity: Chi2   | $^{2}$ = 0.86, df = 2 (F | P = 0.65), I <sup>2</sup> = 0% |     |                              |    | •                     |             |                       |
| Test for overall effect: Z = 2 | 2.13 (P = 0.03)          |                                |     |                              |    |                       |             |                       |
|                                |                          |                                |     |                              | -1 | 0.5 0 0.5             | 1           |                       |

08 Protein sparing modified fast vs 600kcal day deficit or low fat 07 Change in LDLC mmol/l at 12 months Comparison: Outcome:

| Study<br>or sub-category     | N                          | PSMF<br>Mean (SD)              | N   | 600kcal/low fat<br>Mean (SD) | WMD (fixed)<br>95% CI         | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|----------------------------|--------------------------------|-----|------------------------------|-------------------------------|-------------|-----------------------|
| Dansinger 2005               | 40                         | -0.18(0.62)                    | 40  | -0.30(0.87)                  |                               | 25.17       | 0.12 [-0.21, 0.45]    |
| Foster 2003                  | 33                         | 0.01(0.55)                     | 30  | -0.10(0.37)                  | <del></del>                   | 52.31       | 0.11 [-0.12, 0.34]    |
| Stern 2004                   | 44                         | 0.18(0.91)                     | 43  | -0.10(0.75)                  | +                             | 22.51       | 0.28 [-0.07, 0.63]    |
| Total (95% CI)               | 117                        |                                | 113 |                              | •                             | 100.00      | 0.15 [-0.02, 0.32]    |
| Test for heterogeneity: Ch   | $i^2 = 0.68$ , $df = 2$ (F | P = 0.71), I <sup>2</sup> = 0% |     |                              | -                             |             |                       |
| Test for overall effect: Z = | 1.78 (P = 0.08)            |                                |     |                              |                               |             |                       |
|                              |                            |                                |     |                              | -1 -0.5 0 0.5                 | 1           |                       |
|                              |                            |                                |     |                              | Favours treatment Favours con | itrol       |                       |

08 Protein sparing modified fast vs 600kcal day deficit or low fat 08 Change in HDLC mmol/l at 12 months Comparison:

Outcome:

| Study or sub-category                                      | N   | PSMF<br>Mean (SD) | N   | 600kcal/low fat<br>Mean (SD) |         | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|-------------------|-----|------------------------------|---------|--------------------|-------------|-----------------------|
| Dansinger 2005   | 40  | 0.09(0.18)        | 40  | 0.08(0.26)                   |         | <del> </del>       | 25.09       | 0.01 [-0.09, 0.11]    |
| Foster 2003  | 33  | 0.13(0.23)        | 30  | 0.02(0.14)                   |         | <del></del>        | 27.80       | 0.11 [0.02, 0.20]     |
| Stern 2004   | 44  | -0.03(0.18)       | 43  | -0.13(0.16)                  |         | -                  | 47.11       | 0.10 [0.03, 0.17]     |
| Total (95% CI)   | 117 |                   | 113 |                              |         | •                  | 100.00      | 0.08 [0.03, 0.13]     |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |     |                   |     |                              |         |                    |             |                       |
|  |     |                   |     |                              | -1 -0.5 | 0 0.5              | 1           |                       |

Favours control Favours treatment

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

DIET Analyses for adults

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08 Protein sparing modified fast vs 600kcal day deficit or low fat 09 Change in TG mmol/l at 12 months Comparison: Outcome:

| Study or sub-category                    | N                 | PSMF<br>Mean (SD)                 | N   | 600kcal/low fat<br>Mean (SD) |              | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|-----------------------------------|-----|------------------------------|--------------|-----------------------|-------------|-----------------------|
| Dansinger 2005                           | 40                | -0.02(0.94)                       | 40  | 0.03(1.65)                   |              |                       | 10.91       | -0.05 [-0.64, 0.54]   |
| Foster 2003                              | 33                | -0.25(0.34)                       | 30  | 0.01(0.52)                   | _            | <del></del> -         | 78.57       | -0.26 [-0.48, -0.04]  |
| Stern 2004                               | 44                | -0.65(1.78)                       | 43  | 0.05(0.96)                   | <del>-</del> | <del></del>           | 10.52       | -0.70 [-1.30, -0.10]  |
| Total (95% CI)                           | 117               |                                   | 113 |                              | -            |                       | 100.00      | -0.28 [-0.48, -0.09]  |
| Test for heterogeneity: Chi <sup>2</sup> | = 2.51, df = 2 (F | P = 0.29), I <sup>2</sup> = 20.2% |     |                              |              |                       |             |                       |
| Test for overall effect: Z = 2.          | .86 (P = 0.004)   |                                   |     |                              |              |                       |             |                       |
|  |                   |                                   |     |                              | -1 -0.9      | 5 0 0.5               | 1           |                       |

DIET Analyses for adults

08 Protein sparing modified fast vs 600kcal day deficit or low fat 10 Change in FPG mmol/l at 12 months Comparison: Outcome:

| Study<br>or sub-category                 | N              | PSMF<br>Mean (SD)         | N  | 600kcal/low fat<br>Mean (SD) |    |      | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----------------|---------------------------|----|------------------------------|----|------|--------------------|-------------|-----------------------|
| Dansinger 2005                           | 40             | 0.08(0.77)                | 40 | -0.23(1.00)                  |    |      |                    | 97.68       | 0.31 [-0.08, 0.70]    |
| Stern 2004                               | 44             | -0.53(6.06)               | 43 | -0.33(6.01)                  | ←  | -    |                    | 2.32        | -0.20 [-2.74, 2.34]   |
| Total (95% CI)                           | 84             |                           | 83 |                              |    |      |                    | 100.00      | 0.30 [-0.09, 0.68]    |
| Test for heterogeneity: Chi <sup>2</sup> |                | $P = 0.70$ ), $I^2 = 0\%$ |    |                              |    |      |                    |             |                       |
| Test for overall effect: Z = 1.          | .51 (P = 0.13) |                           |    |                              |    |      | 1 .                |             |                       |
|  |                |                           |    |                              | -1 | -0.5 | 0 0.5              | 1           |                       |

Review:

DIET Analyses for adults 08 Protein sparing modified fast vs 600kcal day deficit or low fat 11 Change in SBP mmHg at 12 months Comparison:

Outcome:

| Study or sub-category                    | N                 | PSMF<br>Mean (SD)         | N   | 600kcal/low fat<br>Mean (SD) |     | WMD (fix<br>95% C | , | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|---------------------------|-----|------------------------------|-----|-------------------|---|-------------|-----------------------|
| Dansinger 2005                           | 40                | 0.20(12.00)               | 40  | 1.40(15.00)                  | _   |                   |   | 39.54       | -1.20 [-7.15, 4.75]   |
| Foster 2003                              | 33                | -1.21(11.33)              | 30  | 2.10(14.55)                  |     | -                 | _ | 33.32       | -3.31 [-9.79, 3.17]   |
| Stern 2004                               | 44                | 1.00(19.00)               | 43  | 2.00(15.00)                  |     |                   |   | 27.14       | -1.00 [-8.18, 6.18]   |
| Total (95% CI)                           | 117               |                           | 113 |                              |     |                   | - | 100.00      | -1.85 [-5.59, 1.89]   |
| Test for heterogeneity: Chi <sup>2</sup> | = 0.29, df = 2 (F | $P = 0.86$ ), $I^2 = 0\%$ |     |                              |     | _                 |   |             |                       |
| Test for overall effect: $Z = 0$         | .97 (P = 0.33)    |                           |     |                              |     |                   |   |             |                       |
|  |                   |                           |     |                              | -10 | -5 0              | 5 | 10          |                       |

DIET Analyses for adults 08 Protein sparing modified fast vs 600kcal day deficit or low fat 12 Change in DBP mmHg at 12 months

Comparison:

| Study<br>or sub-category                                   | N   | PSMF<br>Mean (SD)              | N   | 600kcal/low fat<br>Mean (SD) |       |             | ID (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|--------------------------------|-----|------------------------------|-------|-------------|----------------------|-------------|-----------------------|
| Dansinger 2005   | 40  | -1.40(7.50)                    | 40  | -1.20(9.50)                  |       |             |                      | 47.76       | -0.20 [-3.95, 3.55]   |
| Foster 2003  | 33  | -2.76(9.25)                    | 30  | -2.95(10.24)                 |       |             | <del></del>          | 28.73       | 0.19 [-4.65, 5.03]    |
| Stern 2004   | 44  | 3.00(15.00)                    | 43  | 1.00(10.00)                  |       |             | +-                   | 23.51       | 2.00 [-3.35, 7.35]    |
| Total (95% CI)   | 117 |                                | 113 |                              |       | 4           |                      | 100.00      | 0.43 [-2.16, 3.02]    |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |     | P = 0.80), I <sup>2</sup> = 0% |     |                              |       |             |                      |             |                       |
|  |     |                                |     |                              | -10   | -5          | 0 5                  | 10          |                       |
|  |     |                                |     |                              | Favou | rs treatmen | t Favours            | control     |                       |

08 Protein sparing modified fast vs 600kcal day deficit or low fat 13 Change in TC mmol/l at 3 months Comparison:

Outcome:

| Study or sub-category   | N  | PSMF<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-------------------|----|------------------------------|-------|-----------------------|-------------|-----------------------|
| Foster 2003   | 33 | 0.09(1.08)        | 30 | -0.27(1.08)                  |       | -                     | 100.00      | 0.36 [-0.17, 0.89]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 1 |    |                   | 30 |                              |       | •                     | 100.00      | 0.36 [-0.17, 0.89]    |
|   |    |                   |    |                              | -10 - | 5 0 5                 | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

DIET Analyses for adults

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08 Protein sparing modified fast vs 600kcal day deficit or low fat 14 Change in TC mmol/l at 6 months Comparison:

Outcome:

| Study or sub-category                                       | N  | PSMF<br>Mean (SD)              | N  | 600kcal/low fat<br>Mean (SD) |     | WMD (fixed    | Weight % | WMD (fixed)<br>95% CI |
|---|----|--------------------------------|----|------------------------------|-----|---------------|----------|-----------------------|
| Dansinger 2005  | 40 | -0.02(1.08)                    | 40 | -0.16(1.08)                  |     | <u> </u>      | 56.00    | 0.14 [-0.33, 0.61]    |
| Foster 2003   | 33 | 0.12(1.08)                     | 30 | -0.12(1.08)                  |     | <del> -</del> | 44.00    | 0.24 [-0.29, 0.77]    |
| Total (95% CI)  | 73 |                                | 70 |                              |     | •             | 100.00   | 0.18 [-0.17, 0.54]    |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = |    | P = 0.78), I <sup>2</sup> = 0% |    |                              |     | ĺ             |          |                       |
|   |    |                                |    |                              | -10 | -5 0          | 5 10     |                       |

Review: DIET Analyses for adults

08 Protein sparing modified fast vs 600kcal day deficit or low fat 15 Change in LDLC mmol/l at 3 months Comparison:

Outcome:

| Study or sub-category  | N  | PSMF<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) |     |    | O (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-------------------|----|------------------------------|-----|----|--------------------|-------------|-----------------------|
| Foster 2003  | 33 | 0.18(0.74)        | 30 | -0.23(0.74)                  |     |    | <b>=</b>           | 100.00      | 0.41 [0.04, 0.78]     |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2. |    |                   | 30 |                              | ,   |    | •                  | 100.00      | 0.41 [0.04, 0.78]     |
|  |    |                   |    |                              | -10 | -5 | 0 5                | 10          |                       |

Review: DIET Analyses for adults

08 Protein sparing modified fast vs 600kcal day deficit or low fat 16 Change in LDLC mmol/l at 6 months Comparison:

Outcome:

| Study or sub-category  | N  | PSMF<br>Mean (SD)              | N  | 600kcal/low fat<br>Mean (SD) |     |                   | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|--------------------------------|----|------------------------------|-----|-------------------|----------------------|-------------|-----------------------|
| Dansinger 2005   | 40 | -0.07(0.74)                    | 40 | -0.17(0.74)                  |     |                   | •                    | 56.00       | 0.10 [-0.22, 0.42]    |
| Foster 2003  | 33 | 0.09(0.74)                     | 30 | -0.05(0.74)                  |     |                   | ŧ                    | 44.00       | 0.14 [-0.23, 0.51]    |
| Total (95% CI) Test for heterogeneity: Chi² Test for overall effect: Z = 0 |    | P = 0.87), I <sup>2</sup> = 0% | 70 |                              |     |                   | •                    | 100.00      | 0.12 [-0.13, 0.36]    |
|  |    |                                |    |                              | -10 | -5<br>urs treatme | 0 5                  | 10          |                       |

DIET Analyses for adults 08 Protein sparing modified fast vs 600kcal day deficit or low fat 17 Change in SBP mmHg at 3 months Comparison:

| Study or sub-category   | N  | PSMF<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) |     |    | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-------------------|----|------------------------------|-----|----|-----------------|---|-------------|-----------------------|
| Foster 2003   | 33 | -3.13(12.70)      | 30 | -0.74(12.70)                 |     |    |                 |   | 100.00      | -2.39 [-8.67, 3.89]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |    |                   | 30 |                              |     |    |                 |   | 100.00      | -2.39 [-8.67, 3.89]   |
|   |    |                   |    |                              | -10 | -5 | 0               | 5 | 10          |                       |

Review:

DIET Analyses for adults 08 Protein sparing modified fast vs 600kcal day deficit or low fat Comparison:

18 Change in SBP mmHg at 6 months

| Study or sub-category  | N        | PSMF<br>Mean (SD)              | N        | 600kcal/low fat<br>Mean (SD) |     |    | MD (fixed)<br>95% CI |   | Weight<br>%    | WMD (fixed)<br>95% CI                      |
|--|----------|--------------------------------|----------|------------------------------|-----|----|----------------------|---|----------------|--|
| Dansinger 2005<br>Foster 2003  | 40<br>33 | -3.70(12.70)<br>-2.77(12.70)   | 40<br>30 | -3.90(12.70)<br>1.23(12.70)  | ←   | -  | +                    |   | 56.00<br>44.00 | 0.20 [-5.37, 5.77]<br>-4.00 [-10.28, 2.28] |
| Total (95% CI) Test for heterogeneity: Ch Test for overall effect: Z = |          | P = 0.33), I <sup>2</sup> = 0% | 70       |                              |     |    |                      |   | 100.00         | -1.65 [-5.81, 2.52]                        |
|  |          |                                |          |                              | -10 | -5 | 0                    | 5 | 10             |  |

DIET Analyses for adults 08 Protein sparing modified fast vs 600kcal day deficit or low fat 19 Change in DBP mmHg at 3 months Comparison: Outcome: PSMF Study or sub-category Ν Mean (SD) Foster 2003 33 -2.24(8.30)

WMD (fixed) 600kcal/low fat Weight WMD (fixed) Ν 30 -2.72(8.30) 100.00 0.48 [-3.62, 4.58] 30 100.00 0.48 [-3.62, 4.58] Total (95% CI) 33 Test for heterogeneity: not applicable Test for overall effect: Z = 0.23 (P = 0.82) -10 -5 'n 10

Favours treatment Favours control

DIET Analyses for adults

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08 Protein sparing modified fast vs 600kcal day deficit or low fat 20 Change in DBP mmHg at 6 months Comparison:

Outcome:

| Study or sub-category            | N                        | PSMF<br>Mean (SD)              | N  | 600kcal/low fat<br>Mean (SD) |     |    | (fixed)<br>% CI | Weight % | WMD (fixed)<br>95% CI |
|----------------------------------|--------------------------|--------------------------------|----|------------------------------|-----|----|-----------------|----------|-----------------------|
| Dansinger 2005                   | 40                       | -4.00(8.30)                    | 40 | -4.00(8.30)                  |     |    | <u> </u>        | 56.00    | 0.00 [-3.64, 3.64]    |
| Foster 2003                      | 33                       | -2.98(8.30)                    | 30 | -2.25(8.30)                  |     |    |                 | 44.00    | -0.73 [-4.83, 3.37]   |
| Total (95% CI)                   | 73                       |                                | 70 |                              |     |    |                 | 100.00   | -0.32 [-3.04, 2.40]   |
| Test for heterogeneity: Chi2     | $^{2}$ = 0.07, df = 1 (F | P = 0.79), I <sup>2</sup> = 0% |    |                              |     |    |                 |          |                       |
| Test for overall effect: $Z = 0$ | 0.23 (P = 0.82)          |                                |    |                              |     |    |                 |          |                       |
|                                  |                          |                                |    |                              | -10 | -5 | 0 5             | 10       |                       |

Review: DIET Analyses for adults

08 Protein sparing modified fast vs 600kcal day deficit or low fat 21 Change in TC mmol/l at 2 months Comparison:

Outcome:

| Study or sub-category   | N  | PSMF<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) |     |    | MD (fixed)<br>95% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-------------------|----|------------------------------|-----|----|----------------------|---|-------------|-----------------------|
| Dansinger 2005  | 40 | -0.05(1.08)       | 40 | -0.48(1.08)                  |     |    | -                    |   | 100.00      | 0.43 [-0.04, 0.90]    |
| Total (95% CI) Test for heterogeneity: not al Test for overall effect: Z = 1. |    |                   | 40 |                              |     |    | •                    |   | 100.00      | 0.43 [-0.04, 0.90]    |
|   |    |                   |    |                              | -10 | -5 | Ö                    | 5 | 10          |                       |

DIET Analyses for adults Review:

08 Protein sparing modified fast vs 600kcal day deficit or low fat 22 Change in LDLC mmol/l at 2 months Comparison:

Outcome:

| Study<br>or sub-category   | N  | PSMF<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) |     | WMD (fix<br>95% C | , | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-------------------|----|------------------------------|-----|-------------------|---|-------------|-----------------------|
| Dansinger 2005   | 40 | 0.03(0.74)        | 40 | -0.25(0.74)                  |     | <b> </b>          |   | 100.00      | 0.28 [-0.04, 0.60]    |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 1. |    |                   | 40 |                              |     | •                 |   | 100.00      | 0.28 [-0.04, 0.60]    |
|  |    |                   |    |                              | -10 | -5 0              | 5 | 10          |                       |

DIET Analyses for adults Review:

08 Protein sparing modified fast vs 600kcal day deficit or low fat 23 Change in FPG mmol/l at 2 months Comparison:

Outcome:

| Study or sub-category   | N  | PSMF<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) |     |    | MD (fixed)<br>95% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-------------------|----|------------------------------|-----|----|----------------------|---|-------------|-----------------------|
| Dansinger 2005  | 40 | -0.54(1.98)       | 40 | -0.50(1.98)                  |     |    | +                    |   | 100.00      | -0.04 [-0.91, 0.83]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                   | 40 |                              |     |    | <b>†</b>             |   | 100.00      | -0.04 [-0.91, 0.83]   |
|   |    |                   |    |                              | -10 | -5 | Ö                    | 5 | 10          |                       |

Review: DIET Analyses for adults

Comparison: Outcome: 08 Protein sparing modified fast vs 600kcal day deficit or low fat 24 Change in FPG mmol/l at 6 months

| Study or sub-category   | N  | PSMF<br>Mean (SD) | N  | 600kcal/low fat<br>Mean (SD) |       |             | MD (fixed)<br>95% CI |         | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-------------------|----|------------------------------|-------|-------------|----------------------|---------|-------------|-----------------------|
| Dansinger 2005  | 40 | -0.43(1.98)       | 40 | -0.46(1.98)                  |       |             | +                    |         | 100.00      | 0.03 [-0.84, 0.90]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |    |                   | 40 |                              |       |             | •                    |         | 100.00      | 0.03 [-0.84, 0.90]    |
|   |    |                   |    |                              | -10   | -5          | 0 5                  |         | 10          |                       |
|   |    |                   |    |                              | Favor | irs treatme | nt Favours           | control |             |                       |

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**DIET Analyses for adults** 08 Protein sparing modified fast vs 600kcal day deficit or low fat Comparison: 25 Change in SBP mmHg at 2 months PSMF 600kcal/low fat WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) 95% CI or sub-category 40 -4.20(12.70) 40 -4.10(12.70) 100.00 -0.10 [-5.67, 5.47] Dansinger 2005 40 40 100.00 -0.10 [-5.67, 5.47] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.04 (P = 0.97) -10 -5 10 Favours treatment Favours control **DIET** Analyses for adults 08 Protein sparing modified fast vs 600kcal day deficit or low fat 26 Change in DBP mmHg at 2 months Comparison: Outcome: PSMF 600kcal/low fat WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -4.20(8.30) 40 -4.80(8.30) 100.00 0.60 [-3.04, 4.24] Total (95% CI) 100.00 0.60 [-3.04, 4.24] Test for heterogeneity: not applicable Test for overall effect: Z = 0.32 (P = 0.75) -10 -5 Ö 5 10 Favours treatment Review **DIET Analyses for adults** 09 Protein sparing modified fast vs LCD Comparison: 01 Weight change in kg at 1 week Outcome Study PSMF LCD WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Wadden 1994 -0.67(1.54) 21 -1.45(1.05) 100.00 0.78 [0.05, 1.51] Total (95% CI) 21 0.78 [0.05, 1.51] Test for heterogeneity: not applicable Test for overall effect: Z = 2.11 (P = 0.04) -10 -5 Ö 10 Favours treatment Favours control DIET Analyses for adults
09 Protein sparing modified fast vs LCD Review Comparison: 02 Weight change in kg at 5 weeks WMD (fixed) WMD (fixed) PSMF LCD Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Wadden 1994 28 -8.51(2.37) 21 -4.05(2.47) 100.00 -4.46 [-5.83, -3.09] 21 100.00 -4.46 [-5.83, -3.09] Test for heterogeneity: not applicable Test for overall effect: Z = 6.36 (P < 0.00001)-10 -5 ò 10 Favours treatment Favours control Review DIET Analyses for adults
09 Protein sparing modified fast vs LCD Comparison: Outcome 03 Weight change in kg at 8 weeks PSMF LCD WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -3.60(3.30) 40 -3.50(3.80) 100.00 -0.10 [-1.66, 1.46] Total (95% CI) 40 40 100.00 -0.10 [-1.66, 1.46] Test for heterogeneity: not applicable Test for overall effect: Z = 0.13 (P = 0.90) -10 -5 5 10 Favours control DIET Analyses for adults Review 09 Protein sparing modified fast vs LCD Comparison: Outcome 04 Weight change in kg at 9 weeks PSMF LCD WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Wadden 1994 2.8 -13.29(4.02) 21 -5.44(3.61) 100.00 -7.85 [-10.00, -5.71] Total (95% CI) 21 100.00 -7.85 [-10.00, -5.71] Test for heterogeneity: not applicable Test for overall effect: Z = 7.17 (P < 0.00001) -10 -5 ò 5 10 Favours control

DIET Analyses for adults

09 Protein sparing modified fast vs LCD Comparison: 05 Weight change in kg at 5 months Outcome:

| Study or sub-category  | N  | PSMF<br>Mean (SD) | N  | LCD<br>Mean (SD) |     | WMD (fixe<br>95% C |     | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-------------------|----|------------------|-----|--------------------|-----|-------------|-----------------------|
| Wing 1991  | 17 | -18.60(11.18)     | 16 | -10.10(8.77)     | 4   |                    |     | 100.00      | -8.50 [-15.33, -1.67] |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                   | 16 |                  |     | _                  |     | 100.00      | -8.50 [-15.33, -1.67] |
|  |    |                   |    |                  | -10 | -5 0               | - 5 | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

WMD (fixed)

Favours treatment Favours control

Weight

WMD (fixed)

DIET Analyses for adults

09 Protein sparing modified fast vs LCD 06 Weight change in kg at 6 months Comparison: Outcome:

| Study or sub-category                    | N               | PSMF<br>Mean (SD)           | N  | LCD<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----------------|-----------------------------|----|------------------|-----|-----------------------|-------------|-----------------------|
| Dansinger 2005                           | 40              | -3.20(4.90)                 | 40 | -3.50(5.60)      |     |                       | 62.56       | 0.30 [-2.01, 2.61]    |
| Wadden 1989                              | 31              | -16.80(6.68)                | 22 | -13.00(6.57)     | _   |                       | 25.46       | -3.80 [-7.41, -0.19]  |
| Wadden 1994                              | 26              | -21.45(9.63)                | 17 | -11.86(7.89)     | •   | <del></del>           | 11.98       | -9.59 [-14.86, -4.32] |
| Total (95% CI)                           | 97              |                             | 79 |                  |     |                       | 100.00      | -1.93 [-3.75, -0.10]  |
| Test for heterogeneity: Chi <sup>2</sup> | = 12.74, df = 2 | $(P = 0.002), I^2 = 84.3\%$ |    |                  |     | _                     |             |                       |
| Test for overall effect: Z = 2           | .07 (P = 0.04)  |                             |    |                  |     |                       |             |                       |
|  |                 |                             |    |                  | -10 | -5 0 5                | 10          |                       |

Review: DIET Analyses for adults 09 Protein sparing modified fast vs LCD 07 Weight change in kg at 12 months Comparison:

Outcome: PSMF LCD Study or sub-category Ν Mean (SD) Ν

Mean (SD) 95% CI 95% CI Dansinger 2005 40 -2.10(4.80) 40 -3.00(4.90) 66.38 0.90 [-1.23, 3.03] Wadden 1989 Wadden 1994 25 23 -10.60(8.00) -17.33(9.86) 22 17 -6.60(8.91) -14.43(9.46) 12.66 8.23 -4.00 [-8.87, 0.87] -2.90 [-8.94, 3.14] Wing 1994 41 -14.20(10.30) 38 -10.50(11.60) 12.74 -3.70 [-8.55, 1.15] Total (95% CI) 129 117 100.00 -0.62 [-2.35, 1.11] Test for heterogeneity: Chi² = 5.91, df = 3 (P = 0.12),  $I^2$  = 49.3% Test for overall effect: Z = 0.70 (P = 0.48) -10 -5 10

Favours treatment Favours control

**DIET Analyses for adults** 09 Protein sparing modified fast vs LCD Comparison:

Outcome: 08 Weight change in kg at 18 months

| Study<br>or sub-category       | N                    | PSMF<br>Mean (SD)       | N  | LCD<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>%       | WMD (fixed)<br>95% CI |
|--------------------------------|----------------------|-------------------------|----|------------------|-----|-----------------------|-------------------|-----------------------|
| Pavlou 1989 1ca                | 16                   | -8.64(8.36)             | 5  | -9.19(8.52)      |     | -                     | 9.09              | 0.55 [-7.97, 9.07]    |
| Pavlou 1989 1db                | 16                   | -1.13(6.23)             | 5  | -3.57(6.93)      |     |                       | 14.27             | 2.44 [-4.36, 9.24]    |
| Pavlou 1989 1ea                | 10                   | -9.68(8.65)             | 5  | -9.19(8.52)      |     |                       | 7.80              | -0.49 [-9.68, 8.70]   |
| Pavlou 1989 1fb                | 13                   | -0.93(6.18)             | 6  | -3.57(6.93)      |     |                       | 15.69             | 2.64 [-3.84, 9.12]    |
| Pavlou 1989 2a                 | 5                    | -7.29(7.98)             | 6  | -5.75(7.54)      | ←   |                       | <del>-</del> 7.73 | -1.54 [-10.78, 7.70]  |
| Pavlou 1989 2b                 | 5                    | -14.04(9.89)            | 5  | -11.83(9.26)     | ←   |                       | 4.68              | -2.21 [-14.09, 9.67]  |
| Wadden 1994                    | 21                   | -10.94(9.97)            | 16 | -12.18(8.23)     |     |                       | 19.15             | 1.24 [-4.63, 7.11]    |
| Wing 1991                      | 17                   | -8.60(9.20)             | 16 | -6.80(6.90)      | _   | <del></del>           | 21.59             | -1.80 [-7.33, 3.73]   |
| Total (95% CI)                 | 103                  |                         | 64 |                  |     |                       | 100.00            | 0.40 [-2.17, 2.97]    |
| Test for heterogeneity: Chi    | $^2 = 1.88$ , df = 7 | $(P = 0.97), I^2 = 0\%$ |    |                  |     | Γ                     |                   |                       |
| Test for overall effect: Z = 0 | 0.31 (P = 0.76)      |                         |    |                  |     |                       |                   |                       |
|                                |                      |                         |    |                  | -10 | -5 0 5                | 10                |                       |

DIET Analyses for adults
09 Protein sparing modified fast vs LCD Comparison: 09 Weight change in kg at 24 months

| Study<br>or sub-category                                  | N  | PSMF<br>Mean (SD)              | N  | LCD<br>Mean (SD) |       |              | D (fixed)<br>5% CI |        | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------------------|----|------------------|-------|--------------|--------------------|--------|-------------|-----------------------|
| Torgerson 1997  | 58 | -9.20(13.00)                   | 55 | -6.20(8.70)      | -     |              | _                  |        | 44.68       | -3.00 [-7.06, 1.06]   |
| Wing 1994   | 36 | -7.20(8.00)                    | 37 | -5.70(7.90)      |       |              | +                  |        | 55.32       | -1.50 [-5.15, 2.15]   |
| otal (95% CI)   | 94 |                                | 92 |                  |       |              | <b>-</b>           |        | 100.00      | -2.17 [-4.88, 0.54]   |
| est for heterogeneity: Chi<br>est for overall effect: Z = |    | P = 0.59), I <sup>2</sup> = 0% |    |                  |       |              |                    |        |             |                       |
|   |    |                                |    |                  | -10   | -5           | 0                  | 5      | 10          |                       |
|   |    |                                |    |                  | Favor | ire traatman | t Favour           | contro | i           |                       |

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Review:

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DIET Analyses for adults 09 Protein sparing modified fast vs LCD 10 Weight change in kg at 36 months Comparison: Outcome:

| Study or sub-category                                      | N  | PSMF<br>Mean (SD)       | N  | LCD<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-------------------------|----|------------------|----|-----------------------|-------------|-----------------------|
| Pavlou 1989 2a   | 5  | -3.83(7.10)             | 6  | -3.25(6.83)      |    |                       | _ 22.89     | -0.58 [-8.86, 7.70]   |
| Pavlou 1989 2b   | 5  | -13.00(3.83)            | 5  | -10.67(8.93)     | ←  |                       | 21.65       | -2.33 [-10.85, 6.19]  |
| Wadden 1989  | 15 | -5.11(8.28)             | 14 | -3.54(6.26)      | _  | <del></del>           | 55.46       | -1.57 [-6.89, 3.75]   |
| Total (95% CI)   | 25 |                         | 25 |                  |    |                       | 100.00      | -1.51 [-5.47, 2.45]   |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |    | $(P = 0.96), I^2 = 0\%$ |    |                  |    |                       |             |                       |
|  |    |                         |    |                  | 10 | 5 0 5                 | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

DIET Analyses for adults

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09 Protein sparing modified fast vs LCD 11 Weight change in kg at 48 months Comparison: Outcome:

| Study or sub-category   | N  | PSMF<br>Mean (SD) | N  | LCD<br>Mean (SD) |     |    | (fixed)<br>% CI |     | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-------------------|----|------------------|-----|----|-----------------|-----|-------------|-----------------------|
| Torgerson 1997  | 29 | -7.60(12.20)      | 26 | -6.30(8.50)      | -   |    | -               |     | 100.00      | -1.30 [-6.81, 4.21]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                   | 26 |                  | _   |    |                 |     | 100.00      | -1.30 [-6.81, 4.21]   |
| -   |    |                   |    |                  | -10 | -5 | 0               | 5 ′ | 0           |                       |

Review: DIET Analyses for adults

Comparison: Outcome: 09 Protein sparing modified fast vs LCD 12 Weight change in kg at 60 months

| Study or sub-category  | N  | PSMF<br>Mean (SD) | N  | LCD<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-------------------|----|------------------|-----|-----------------------|-------------|-----------------------|
| Wadden 1989  | 22 | 2.90(11.26)       | 15 | 2.70(6.97)       |     | -                     | 100.00      | 0.20 [-5.68, 6.08]    |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                   | 15 |                  |     |                       | 100.00      | 0.20 [-5.68, 6.08]    |
| ,  |    |                   |    |                  | -10 | 5 0                   | 5 10        |                       |

Comparison:

DIET Analyses for adults 09 Protein sparing modified fast vs LCD 13 Weight change in kg over time Outcome:

| Study<br>or sub-category | N  | PSMF<br>Mean (SD) | N  | LCD<br>Mean (SD) | WMD (fixed)<br>95% CI                            | Weight<br>%        | WMD (fixed)<br>95% CI |
|--------------------------|----|-------------------|----|------------------|--|--------------------|-----------------------|
| 01 Dansinger 2005        |    |                   |    |                  |  |                    |                       |
| Dansinger 2 months       | 40 | -3.60(3.30)       | 40 | -3.50(3.80)      | <del></del>                                      | 50.10              | -0.10 [-1.66, 1.46]   |
| Dansinger 6 months       | 40 | -3.20(4.90)       | 40 | -3.50(5.60)      | <del></del>                                      | 22.92              | 0.30 [-2.01, 2.61]    |
| Dansinger 12 months      | 40 | -2.10(4.80)       | 40 | -3.00(4.90)      | <del> </del>                                     | 26.97              | 0.90 [-1.23, 3.03]    |
| 02 Wadden 1989           |    |                   |    |                  |  |                    |                       |
| Wadden 6 months          | 31 | -16.80(6.68)      | 22 | -13.00(6.57)     |  | 41.50              | -3.80 [-7.41, -0.19]  |
| Wadden 12 months         | 25 | -10.60(8.00)      | 22 | -6.60(8.91)      | <del></del>                                      | 22.89              | -4.00 [-8.87, 0.87]   |
| Wadden 36 months         | 16 | -5.11(8.28)       | 14 | -3.54(6.26)      | <del></del>                                      | 19.93              | -1.57 [-6.79, 3.65]   |
| Wadden 60 months         | 22 | 2.90(11.26)       | 15 | 2.70(6.97)       | -  | 15.68              | 0.20 [-5.68, 6.08]    |
| 03 Wadden 1994           |    |                   |    |                  |  |                    |                       |
| Wadden 1 week            | 28 | -0.67(1.54)       | 21 | -1.45(1.05)      | <del></del>                                      | 69.32              | 0.78 [0.05, 1.51]     |
| Wadden 5 weeks           | 28 | -8.51(2.37)       | 21 | -4.05(2.47)      |  | 19.36              | -4.46 [-5.83, -3.09]  |
| Wadden 9 weeks           | 28 | -13.29(4.02)      | 21 | -5.44(3.61)      | <del></del>                                      | 7.94               | -7.85 [-10.00, -5.71] |
| Wadden 6months           | 26 | -21.45(9.63)      | 17 | -11.86(7.89)     | <b></b>  | 1.32               | -9.59 [-14.86, -4.32] |
| Wadden 12months          | 23 | -17.33(9.86)      | 17 | -14.43(9.46)     |  | 1.00               | -2.90 [-8.94, 3.14]   |
| Wadden 18months          | 21 | -10.94(9.97)      | 16 | -12.18(8.23)     |  | 1.06               | 1.24 [-4.63, 7.11]    |
| 04 Pavlou 1989 2         |    |                   |    |                  |  |                    |                       |
| Pavlou 2a 18 months      | 5  | -7.29(7.98)       | 6  | -5.75(7.54)      | -  | _ 24.84            | -1.54 [-10.78, 7.70]  |
| Pavlou 2a 36 months      | 5  | -3.83(7.10)       | 6  | -3.25(6.83)      |  | <del>-</del> 30.90 | -0.58 [-8.86, 7.70]   |
| Pavlou 2b 18 months      | 5  | -14.04(9.89)      | 5  | -11.83(9.26)     | -  | 15.03              | -2.21 [-14.09, 9.67]  |
| Pavlou 2b 36 months      | 5  | -13.00(3.83)      | 5  | -10.67(8.93)     | <del></del>                                      | 29.22              | -2.33 [-10.85, 6.19]  |
| 05 Wing 1991             |    |                   |    |                  |  |                    |                       |
| Wing 5 months            | 17 | -18.60(11.18)     | 16 | -10.10(8.77)     | <del>                                     </del> | 39.55              | -8.50 [-15.33, -1.67] |
| Wing 18 months           | 17 | -8.60(9.20)       | 16 | -6.80(6.90)      | <del></del>                                      | 60.45              | -1.80 [-7.33, 3.73]   |
| 06 Torgerson 1997        |    |                   |    |                  |  |                    |                       |
| Torgerson 24 months      | 58 | -9.20(13.00)      | 55 | -6.20(8.70)      | <del></del>                                      | 64.84              | -3.00 [-7.06, 1.06]   |
| Torgerson 48 months      | 29 | -7.60(12.20)      | 26 | -6.30(8.50)      | <del></del>                                      | 35.16              | -1.30 [-6.81, 4.21]   |
| 07 Wing 1994             |    |                   |    |                  |  |                    |                       |
| Wing 12 months           | 41 | -14.20(10.30)     | 38 | -10.50(11.60)    | <del></del>                                      | 36.11              | -3.70 [-8.55, 1.15]   |
| Wing 24 months           | 36 | -7.20(8.00)       | 37 | -5.70(7.90)      | <del></del>                                      | 63.89              | -1.50 [-5.15, 2.15]   |

DIET Analyses for adults 09 Protein sparing modified fast vs LCD Comparison: 14 Change in TC mmol/l at 12 months PSMF LCD WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) 40 -0.11(0.59) 40 -0.21(0.62) 77.73 0.10 [-0.17, 0.37] Dansinger 2005 Wing 1994 36 0.02(1.08) 37 -0.31(1.08) 22.27 0.33 [-0.17, 0.83] Total (95% CI) 76 77 100.00 0.15 [-0.08, 0.39] Test for heterogeneity:  $Chi^2 = 0.64$ , df = 1 (P = 0.42),  $I^2 = 0\%$ Test for overall effect: Z = 1.27 (P = 0.21) -0.5 0.5 Favours control **DIET Analyses for adults** Review: 09 Protein sparing modified fast vs LCD Comparison: Outcome 15 Change in TC mmol/l at 18 months Weight PSMF LCD WMD (fixed) WMD (fixed) Ν Mean (SD) Ν Mean (SD) or sub-category 95% CI 95% CI Wing 1991 17 0.29(1.08) 16 0.31(1.08) 100.00 -0.02 [-0.76, 0.72] Total (95% CI) 16 100.00 -0.02 [-0.76, 0.72] Test for heterogeneity: not applicable Test for overall effect: Z = 0.05 (P = 0.96) -0.5 0.5 Ò Favours treatment Favours control Review: **DIET Analyses for adults** 09 Protein sparing modified fast vs LCD Comparison: 16 Change in LDLC mmol/l at 12 months Outcome Weight PSMF LCD WMD (fixed) WMD (fixed) Mean (SD) Mean (SD) or sub-category Ν Ν 95% CI % 95% CI -0.24(0.69) -0.18(0.62) [-0.23, 0.35] Dansinger 2005 40 40 58.25 0.06 36 [-0.08, 0.60] Wing 1994 Total (95% CI) 77 100.00 0.14 [-0.08, 0.36] Test for heterogeneity:  $Chi^2 = 0.78$ , df = 1 (P = 0.38),  $I^2 = 0\%$ Test for overall effect: Z = 1.28 (P = 0.20) -0.5 0.5 Favours treatment Favours control **DIET Analyses for adults** 09 Protein sparing modified fast vs LCD 17 Change in HDLC mmol/l at 12 months Comparison Outcome: PSMF LCD WMD (fixed) WMD (fixed) Study Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 0.09(0.18) 0.09(0.25) 0.00 [-0.10, 0.10] Dansinger 2005 40 100.00 40 0.00 [-0.10, 0.10] Total (95% CI) 40 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.00 (P = 1.00) -0.5 Ů. 0.5 Favours control Favours treatment **DIET Analyses for adults** 09 Protein sparing modified fast vs LCD Comparison: 18 Change in HDLC mmol/l at 18 months LCD WMD (fixed) WMD (fixed) Study Weight or sub-category Ν Mean (SD) N Mean (SD) 95% CI 95% CI Wing 1991 17 0.22(0.29) 16 0.13(0.29) 100.00 0.09 [-0.11, 0.29] 16 100.00 0.09 [-0.11, 0.29] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.89 (P = 0.37) -0.5 0.5 Favours treatment Favours control Review DIET Analyses for adults
09 Protein sparing modified fast vs LCD Comparison: 19 Change in TG mmol/l at 12 months WMD (fixed) LCD WMD (fixed) Study Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI

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Dansinger 2005

Test for heterogeneity: not applicable Test for overall effect: Z = 0.65 (P = 0.52)

Total (95% CI)

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-0.02(0.94)

40

40

-0.14(0.69)

-0.5

Favours treatment Favours control

40

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100.00

100.00

0.5

0.12 [-0.24, 0.48]

0.12 [-0.24, 0.48]

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DIET Analyses for adults 09 Protein sparing modified fast vs LCD Comparison: 20 Change in TG mmol/l at 18 months PSMF LCD WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) or sub-category 17 -0.13(0.96) 16 -0.29(0.96) 100.00 0.16 [-0.50, 0.82] Wing 1991 0.16 [-0.50, 0.82] 17 16 100.00 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.48 (P = 0.63) -0.5 0.5 Favours treatment Favours control Review: DIET Analyses for adults 09 Protein sparing modified fast vs LCD 21 Change in FPG mmol/l at 12 months Comparison: Outcome: PSMF LCD WMD (fixed) Weight WMD (fixed) Study or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 0.08(0.77) 40 -0.26(1.06) 83.35 0.34 [-0.07, 0.75] Wing 1994 36 -3.01(1.98) 37 -2.40(1.98) 16.65 -0.61 [-1.52, 0.30] Total (95% CI) 77 100.00 0.18 [-0.19, 0.55] Test for heterogeneity:  $Chi^2 = 3.50$ , df = 1 (P = 0.06),  $I^2 = 71.4\%$ Test for overall effect: Z = 0.96 (P = 0.34) -0.5 0.5 Ò Favours treatment Favours control **DIET Analyses for adults** Review: 09 Protein sparing modified fast vs LCD 22 Change in FPG mmol/l at 18 months Comparison: Outcome Weight PSMF LCD WMD (fixed) WMD (fixed) Mean (SD) Mean (SD) Ν Ν 95% CI 95% CI or sub-category % -3.80(3.77)0.70(3.77) -4.50 [-7.07, -1.93] Wing 1991 17 16 100.00 Total (95% CI) 16 100.00 -4.50 [-7.07, -1.93] Test for heterogeneity: not applicable Test for overall effect: Z = 3.43 (P = 0.0006) -0.5 0.5 Favours treatment Favours control Review: **DIET Analyses for adults** Comparison: 09 Protein sparing modified fast vs LCD 23 Change in FPG mmol/l at 24 months Outcome Study **PSMF** LCD WMD (fixed) Weight WMD (fixed) Mean (SD) Ν Mean (SD) Ν 95% CI 95% CI or sub-category -1.22(4.56) -1.61 [-3.73, 0.51] 36 37 0.39(4.67) 100.00 Wing 1994 Total (95% CI) 36 37 100.00 -1.61 [-3.73, 0.51] Test for heterogeneity: not applicable Test for overall effect: Z = 1.49 (P = 0.14) -0.5 Favours treatment Favours control DIET Analyses for adults Review: 09 Protein sparing modified fast vs LCD 24 Change in %HbA1c at 18 months Comparison Outcome Study PSMF LCD WMD (fixed) Weight WMD (fixed) Mean (SD) Mean (SD) 95% CI or sub-category Ν Ν 95% CI Wing 1991 -1.20(2.58) 16 1.40(2.58) 100.00 -2.60 [-4.36, -0.84] 17 • -2.60 [-4.36, -0.84] Total (95% CI) 17 16 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 2.89 (P = 0.004) -0.5 0.5 Favours treatment Favours control Review: **DIET Analyses for adults** Comparison: 09 Protein sparing modified fast vs LCD 25 Change in %HbA1c at 24 months Outcome Study **PSMF** LCD WMD (fixed) Weight WMD (fixed) Mean (SD) Mean (SD) 95% CI 95% CI or sub-category % Wing 1994 36 0.07(2.22) 37 0.24(2.40) 100.00 -0.17 [-1.23, 0.89] Total (95% CI) 37 -0.17 [-1.23, 0.89] 36 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.31 (P = 0.75) -0.5 0.5 Favours treatment Favours control

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DIET Analyses for adults 09 Protein sparing modified fast vs LCD Comparison: 26 Change in SBP mmHg at 12 months PSMF LCD WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) 95% CI or sub-category 40 0.20(12.00) 40 -2.70(13.00) 53.04 2.90 [-2.58, 8.38] Dansinger 2005 Wing 1994 36 -6.00(12.70) 37 -3.00(12.70) 46.96 -3.00 [-8.83, 2.83] Total (95% CI) 76 77 100.00 0.13 [-3.86, 4.12] Test for heterogeneity:  $Chi^2 = 2.09$ , df = 1 (P = 0.15),  $I^2 = 52.1\%$ Test for overall effect: Z = 0.06 (P = 0.95) -10 10 -5 0 Favours control **DIET Analyses for adults** Review 09 Protein sparing modified fast vs LCD 27 Change in DBP mmHg at 12 months Comparison: Outcome PSMF LCD WMD (fixed) WMD (fixed) Weight Ν Ν Mean (SD) or sub-category Mean (SD) 95% CI 95% CI Dansinger 2005 Wing 1994 -1.40(7.50) -8.00(8.30) 0.30 [-2.76, 3.36] -5.00 [-8.81, -1.19] 40 40 -1.70(6.40) 60.84 -3.00(8.30) 36 Total (95% CI) 100.00 -1.78 [-4.16, 0.61] 77 Test for heterogeneity:  $Chi^2 = 4.53$ , df = 1 (P = 0.03),  $I^2 = 77.9\%$ Test for overall effect: Z = 1.46 (P = 0.14) -10 10 Favours treatment Favours control Review: **DIET Analyses for adults** 09 Protein sparing modified fast vs LCD 28 Change in TC mmol/l at 6 months Comparison: Outcome: WMD (fixed) WMD (fixed) LCD Study **PSMF** Weight Ν Mean (SD) N Mean (SD) 95% CI 95% CI or sub-category -0.02(1.08) 40 40 -0.21(1.08) 52.29 0.19 [-0.28, 0.66] Dansinger 2005 Wing 1994 36 -0.31(1.08) 37 -0.57(1.08) 47.71 0.26 [-0.24, 0.76] Total (95% CI) 77 100.00 0.22 [-0.12, 0.57] Test for heterogeneity: Chi<sup>2</sup> = 0.04, df = 1 (P = 0.84),  $I^2$  = 0% Test for overall effect: Z = 1.28 (P = 0.20) -10 -5 10 ò Favours control Favours treatment Review **DIET Analyses for adults** 09 Protein sparing modified fast vs LCD Comparison: 29 Change in LDLC mmol/l at 6 months Weight PSMF LCD WMD (fixed) WMD (fixed) or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI % 95% CI -0.07(0.74 -0.18(0.74) 52.29 0.11 [-0.21, 0.43] Dansinger 2005 40 40 -0.31(0.74) 36 -0.08(0.74) 37 47.71 0.23 [-0.11, 0.57] Wing 1994 Total (95% CI) 77 100.00 0.17 [-0.07, 0.40] 76 Test for heterogeneity:  $Chi^2 = 0.25$ , df = 1 (P = 0.62),  $I^2 = 0\%$ Test for overall effect: Z = 1.40 (P = 0.16) -10 -5 10 Favours treatment Favours control Review: **DIET Analyses for adults** 09 Protein sparing modified fast vs LCD 30 Change in FPG mmol/l at 5 months Comparison Outcome: LCD WMD (fixed) WMD (fixed) Study **PSMF** Weight Mean (SD) Mean (SD) 95% CI or sub-category Wing 1991 -6.50(3.11) 16 -3.50(3.11) 100.00 -3.00 [-5.12, -0.88] 17 16 100.00 -3.00 [-5.12, -0.88] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: 7 = 2.77 (P = 0.006) -10 10 Favours treatment Favours control **DIET Analyses for adults** Comparison: 09 Protein sparing modified fast vs LCD 31 Change in FPG mmol/l at 6 months Outcome LCD WMD (fixed) WMD (fixed) Study **PSMF** Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.43(1.98) 40 -0.21(1.98) 52.29 -0.22 [-1.09, 0.65] Wing 1994 36 -3 62(1 98) 37 -3 17(1 98) -0.45 [-1.36, 0.46] 77 100.00 -0.33 [-0.96, 0.30] Test for heterogeneity:  $Chi^2 = 0.13$ , df = 1 (P = 0.72),  $I^2 = 0\%$ Test for overall effect: Z = 1.03 (P = 0.30) -10 10

Favours control

Favours treatment

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DIET Analyses for adults 09 Protein sparing modified fast vs LCD Comparison: 32 Change in %HbA1c at 5 months LCD WMD (fixed) Weight WMD (fixed) Study PSMF Ν Mean (SD) Ν Mean (SD) 95% CI or sub-category 17 -2.90(2.70) 16 -1.80(2.70) 100.00 -1.10 [-2.94, 0.74] Wing 1991 -1.10 [-2.94, 0.74] 16 100.00 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 1.17 (P = 0.24) -10 10 Favours treatment Favours control Review: **DIET** Analyses for adults 09 Protein sparing modified fast vs LCD 33 Change in %HbA1c at 6 months Comparison: Outcome: PSMF LCD WMD (fixed) WMD (fixed) Study Weight Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Wing 1994 36 -2.00(0.76) 37 -1.70(0.76) 100.00 -0.30 [-0.65, 0.05] Total (95% CI) 37 100.00 -0.30 [-0.65, 0.05] Test for heterogeneity: not applicable Test for overall effect: Z = 1.69 (P = 0.09) -10 -5 Ö 10 Favours treatment DIET Analyses for adults
09 Protein sparing modified fast vs LCD Review Comparison: 34 Change in %HbA1c at 12 months Outcome Study PSMF LCD WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Wing 1994 -1.50(0.76) 37 -1.30(0.76) 100.00 -0.20 [-0.55, 0.15] Total (95% CI) -0.20 [-0.55, 0.15] Test for heterogeneity: not applicable Test for overall effect: Z = 1.12 (P = 0.26) -10 -5 Ö 10 Favours treatment Favours control DIET Analyses for adults
09 Protein sparing modified fast vs LCD Review Comparison: 35 Change in SBP mmHg at 6 months WMD (fixed) WMD (fixed) PSMF LCD Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -3.70(12.70) 40 -4.80(12.70) 52.29 1.10 [-4.47, 6.67] Wing 1994 36 -9.00(12.70)37 -6.00(12.70) -3.00 [-8.83, 2.83] 100.00 -0.86 [-4.88, 3.17] Total (95% CI) 76 77 Test for heterogeneity:  $Chi^2 = 0.99$ , df = 1 (P = 0.32),  $I^2 = 0\%$ Test for overall effect: Z = 0.42 (P = 0.68) -10 10 Favours treatment Favours control DIET Analyses for adults Review: 09 Protein sparing modified fast vs LCD 36 Change in DBP mmHg at 6 months Comparison Outcome Study PSMF LCD WMD (fixed) Weight WMD (fixed) Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Ν -2.20 [-5.84, 1.44] -3.00 [-6.81, 0.81] -4.00(8.30) -1.80(8.30) Dansinger 2005 52.29 40 40 36 -6.00(8.30) 37 -3.00(8.30) Wing 1994 Total (95% CI) 77 100.00 -2.58 [-5.21, 0.05] Test for heterogeneity: Chi<sup>2</sup> = 0.09, df = 1 (P = 0.77),  $I^2$  = 0% Test for overall effect: Z = 1.92 (P = 0.05) -10 -5 10 Favours control Favours treatment Review DIET Analyses for adults
09 Protein sparing modified fast vs LCD Comparison: 37 Change in TC mmol/l at 2 months LCD WMD (fixed) WMD (fixed) Study Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.05(1.08) 40 -0.38(1.08) 100.00 0.33 [-0.14, 0.80] Total (95% CI) 40 100.00 0.33 [-0.14, 0.80] 40 Test for heterogeneity: not applicable Test for overall effect: Z = 1.37 (P = 0.17) -10 -5 10 Favours treatment Favours control

DIET Analyses for adults 09 Protein sparing modified fast vs LCD Comparison: 38 Change in LDLC mmol/l at 2 months PSMF LCD WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) or sub-category 40 0.03(0.74) 40 -0.31(0.74) 100.00 0.34 [0.02, 0.66] Dansinger 2005 0.34 [0.02, 0.66] 40 100.00 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 2.05 (P = 0.04) -10 -5 10 Favours treatment Favours control Review: DIET Analyses for adults 09 Protein sparing modified fast vs LCD 39 Change in FPG mmol/l at 2 months Comparison: Outcome: PSMF LCD WMD (fixed) Weight WMD (fixed) Study or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.54(1.98) 40 -0.31(0.98) 100.00 -0.23 [-0.91, 0.45] Total (95% CI) 40 100.00 -0.23 [-0.91, 0.45] Test for heterogeneity: not applicable Test for overall effect: Z = 0.66 (P = 0.51) -10 -5 Ö 10 Favours control Favours treatment Review DIET Analyses for adults 09 Protein sparing modified fast vs LCD Comparison: 40 Change in SBP mmHg at 2 months Outcome Study PSMF LCD WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -4.20(12.70) 40 -4.80(12.70) 100.00 0.60 [-4.97, 6.17] Total (95% CI) 40 0.60 [-4.97, 6.17] Test for heterogeneity: not applicable Test for overall effect: Z = 0.21 (P = 0.83) -10 -5 Ö 10 Favours treatment Favours control Review **DIET Analyses for adults** 09 Protein sparing modified fast vs LCD Comparison: 41 Change in DBP mmHg at 2 months WMD (fixed) WMD (fixed) Study LCD Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -4.20(8.30) 40 -3.10(8.30) 100.00 -1.10 [-4.74, 2.54] 40 100.00 -1.10 [-4.74, 2.54] Test for heterogeneity: not applicable Test for overall effect: Z = 0.59 (P = 0.55) -10 -5 10 Favours treatment Favours control Review DIET Analyses for adults
10 Protein sparing modified fast vs VLCD Comparison: Outcome 01 Weight change in kg at 18 months PSMF VLCD WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI % 95% CI Pavlou 1989 1ce 8 -8.64(8.36) 10 -9.68(8.65) 15.76 1.04 [-6.85, 8.93] 3.76 [-3.49, 11.01] Paylou 1989 1co -8.64(8.36) 18 -12.40(9.42) 18.71 Pavlou 1989 1di -1.13(6.23 13 -0.93(6.18) 32.82 -0.20 [-5.67, Pavlou 1989 1dh 8 -1.13(6.23) 16 -3.45(6.89) 32.70 2.32 [-3.16, 7.80] Total (95% CI) 32 57 100.00 1.56 [-1.57, 4.69] Test for heterogeneity:  $Chi^2 = 0.84$ , df = 3 (P = 0.84),  $I^2 = 0\%$ Test for overall effect: Z = 0.98 (P = 0.33) -10 10 Favours treatment Favours control DIET Analyses for adults Review: 11 Low fat diet vs very low fat diet Comparison: Outcome: 01 Weight change in kg over time

| Study or sub-category | N  | Low fat<br>Mean (SD) | N  | Very low fat<br>Mean (SD) |       | V          | VMD (fixed<br>95% CI | )          | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|----------------------|----|---------------------------|-------|------------|----------------------|------------|-------------|-----------------------|
| 01 Dansinger 2005     |    |                      |    |                           |       |            |                      |            |             |                       |
| Dansinger 2 months    | 40 | -3.80(3.60)          | 40 | -3.60(3.40)               |       |            | -                    |            | 62.83       | -0.20 [-1.73, 1.33]   |
| Dansinger 6 months    | 40 | -3.40(5.70)          | 40 | -3.60(6.70)               |       |            | <del></del>          |            | 19.91       | 0.20 [-2.53, 2.93]    |
| Dansinger 12 months   | 40 | -3.20(6.00)          | 40 | -3.30(7.30)               |       | -          | +                    | -          | 17.25       | 0.10 [-2.83, 3.03]    |
|                       |    |                      |    |                           | -10   | -5         | 0                    | 5          | 10          |                       |
|                       |    |                      |    |                           | Favou | urs treatm | ent Fav              | ours contr | ol          |                       |

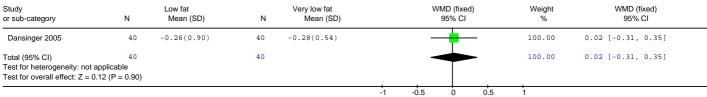
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Review: DIET Analyses for adults
Comparison: 11 Low fat diet vs very low fat diet
Outcome: 02 Change in TC mmol/l at 12 months
Study Low fat



Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: DIET Analyses for adults
Comparison: 11 Low fat diet vs very low fat diet
Outcome: 03 Change in LDLC mmol/l at 12 months

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| Study or sub-category  | N  | Low fat<br>Mean (SD) | N  | Very low fat<br>Mean (SD) | WMD<br>95% | (fixed)<br>6 CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|----------------------|----|---------------------------|------------|-----------------|-------------|-----------------------|
| Dansinger 2005   | 40 | -0.30(0.87)          | 40 | -0.32(0.49)               | -          | -               | 100.00      | 0.02 [-0.29, 0.33]    |
| Total (95% CI) Test for heterogeneity: not appli Test for overall effect: Z = 0.13 |    |                      | 40 |                           |            |                 | 100.00      | 0.02 [-0.29, 0.33]    |
|  |    |                      |    |                           | -1 -0.5    | 0.5             | 1           |                       |

Review: DIET Analyses for adults
Comparison: 11 Low fat diet vs very low fat diet
Outcome: 04 Change in HDLC mmol/l at 12 months

| Study or sub-category  | N  | Low fat<br>Mean (SD) | N  | Very low fat<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>%          | WMD (fixed)<br>95% CI |
|--|----|----------------------|----|---------------------------|-----------------------|----------------------|-----------------------|
| Dansinger 2005   | 40 | 0.08(0.26)           | 40 | -0.01(0.17)               | =                     | 100.00               | 0.09 [-0.01, 0.19]    |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 1.8 |    |                      | 40 |                           | •                     | 100.00               | 0.09 [-0.01, 0.19]    |
|  |    |                      |    |                           |                       | 0.5 1<br>s treatment |                       |

Review: DIET Analyses for adults
Comparison: 11 Low fat diet vs very low fat diet
Outcome: 05 Change in TG mmol/l at 12 months

| Study or sub-category   | N  | Low fat<br>Mean (SD) | N  | Very low fat<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |  |
|---|----|----------------------|----|---------------------------|----|-----------------------|-------------|-----------------------|--|
| Dansinger 2005  | 40 | 0.03(1.65)           | 40 | 0.06(0.40)                |    |                       | 100.00      | -0.03 [-0.56, 0.50]   |  |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |    |                      | 40 |                           |    |                       | 100.00      | -0.03 [-0.56, 0.50]   |  |
|   |    |                      |    |                           | -1 | -0.5 0 0.5            | 1           |                       |  |

Review: DIET Analyses for adults
Comparison: 11 Low fat diet vs very low fat diet
Outcome: 06 Change in FPG mmol/l at 12 months

| Study or sub-category  | N  | Low fat<br>Mean (SD) | N  | Very low fat<br>Mean (SD) |    | WMD (fi<br>95% ( | ,   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|----------------------|----|---------------------------|----|------------------|-----|-------------|-----------------------|
| Dansinger 2005   | 40 | -0.23(1.00)          | 40 | -0.23(1.67)               |    | -+               |     | 100.00      | 0.00 [-0.60, 0.60]    |
| Total (95% CI) Test for heterogeneity: not appress for overall effect: Z = 0.0 |    |                      | 40 |                           |    |                  | _   | 100.00      | 0.00 [-0.60, 0.60]    |
|  |    |                      |    |                           | -1 | -0.5 0           | 0.5 | 1           |                       |

Review: DIET Analyses for adults
Comparison: 11 Low fat diet vs very low fat diet
Outcome: 07 Change in SBP mmHg at 12 months

| Study<br>or sub-category  | N  | Low fat<br>Mean (SD) | N  | Very low fat<br>Mean (SD) |      |             | MD (fixed)<br>95% CI |            | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|----------------------|----|---------------------------|------|-------------|----------------------|------------|-------------|-----------------------|
| Dansinger 2005  | 40 | 1.40(15.00)          | 40 | 0.50(7.70)                |      |             | -                    |            | 100.00      | 0.90 [-4.33, 6.13]    |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0 |    |                      | 40 |                           |      |             |                      | _          | 100.00      | 0.90 [-4.33, 6.13]    |
|   |    |                      |    |                           | -10  | -5          | 0                    | 5          | 10          |                       |
|   |    |                      |    |                           | Fove | iro trootmo | nt Four              | ro control |             |                       |

**DIET Analyses for adults** Comparison: 11 Low fat diet vs very low fat diet 08 Change in DBP mmHg at 12 months WMD (fixed) Weight WMD (fixed) Study Very low fat Low fat Ν Mean (SD) Ν Mean (SD) 95% CI or sub-category 40 -1.20(9.50) 40 0.20(4.60) 100.00 -1.40 [-4.67, 1.87] Dansinger 2005 40 40 100.00 -1.40 [-4.67, 1.87] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.84 (P = 0.40) -10 10 1 Favours treatment Favours control Review: **DIET** Analyses for adults Comparison: 11 Low fat diet vs very low fat diet Outcome: 09 Change in TC mmol/l at 2 months Very low fat WMD (fixed) WMD (fixed) Study Low fat Weight Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -0.48(1.08) 40 -0.49(1.08) 100.00 0.01 [-0.46, 0.48] Total (95% CI) 40 100.00 0.01 [-0.46, 0.48] Test for heterogeneity: not applicable Test for overall effect: Z = 0.04 (P = 0.97) -10 -5 Ö 10 2 Favours treatment Review **DIET Analyses for adults** Comparison: 11 Low fat diet vs very low fat diet 10 Change in TC mmol/l at 6 months Outcome Study Very low fat WMD (fixed) WMD (fixed) Low fat Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.16(1.08) 40 -0.30(1.08) 100.00 0.14 [-0.33, 0.61] Total (95% CI) 40 0.14 [-0.33, 0.61] Test for heterogeneity: not applicable Test for overall effect: Z = 0.58 (P = 0.56) -10 -5 Ö 10 3 Favours treatment Favours control DIET Analyses for adults
11 Low fat diet vs very low fat diet Review Comparison: 11 Change in LDLC mmol/l at 2 months WMD (fixed) Low fat Very low fat WMD (fixed) Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.25(0.74) 40 -0.43(0.74) 100.00 0.18 [-0.14, 0.50] 40 100.00 0.18 [-0.14, 0.50] Test for heterogeneity: not applicable Test for overall effect: Z = 1.09 (P = 0.28) -10 -5 10 Favours treatment Favours control Review DIET Analyses for adults
11 Low fat diet vs very low fat diet Comparison: Outcome 12 Change in LDLC mmol/l at 6 months Very low fat WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.17(0.74) 40 -0.27(0.74) 100.00 0.10 [-0.22, 0.42] Total (95% CI) 40 40 100.00 0.10 [-0.22, 0.42] Test for heterogeneity: not applicable Test for overall effect: Z = 0.60 (P = 0.55) -10 -5 ò 10 5 Favours control **DIET Analyses for adults** Review 11 Low fat diet vs very low fat diet Comparison: Outcome 13 Change in FPG mmol/l at 2 months Very low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.50(1.98) 40 -0.17(1.98) 100.00 -0.33 [-1.20, 0.54] Total (95% CI) 40 100.00 -0.33 [-1.20, 0.54] Test for heterogeneity: not applicable Test for overall effect: Z = 0.75 (P = 0.46) -10 -5 ò 5 10 6

**DIET Analyses for adults** Comparison: 11 Low fat diet vs very low fat diet 14 Change in FPG mmol/l at 6 months WMD (fixed) Weight WMD (fixed) Study Very low fat Low fat Ν Mean (SD) Ν Mean (SD) or sub-category 40 -0.46(1.98) 40 -0.28(1.98) 100.00 -0.18 [-1.05, 0.69] Dansinger 2005 -0.18 [-1.05, 0.69] 40 40 100.00 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.41 (P = 0.68) -10 10 Favours treatment Favours control Review: **DIET** Analyses for adults Comparison: 11 Low fat diet vs very low fat diet Outcome: 15 Change in SBP mmHg at 2 months WMD (fixed) Weight WMD (fixed) Study Low fat Very low fat Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -4.10(12.70) 40 -1.30(12.70) 100.00 -2.80 [-8.37, 2.77] Total (95% CI) 40 100.00 -2.80 [-8.37, 2.77] Test for heterogeneity: not applicable Test for overall effect: Z = 0.99 (P = 0.32) -10 -5 Ö 5 10 Favours treatment Review **DIET Analyses for adults** Comparison: 11 Low fat diet vs very low fat diet 16 Change in SBP mmHg at 6 months Outcome Study Very low fat WMD (fixed) WMD (fixed) Low fat Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -3.90(12.70) 40 -0.60(12.70) 100.00 -3.30 [-8.87, 2.27] Total (95% CI) 40 -3.30 [-8.87, 2.27] Test for heterogeneity: not applicable Test for overall effect: Z = 1.16 (P = 0.25) -10 -5 Ö 10 Favours treatment Favours control Review **DIET Analyses for adults** 11 Low fat diet vs very low fat diet Comparison: 17 Change in DBP mmHg at 2 months WMD (fixed) Low fat Very low fat WMD (fixed) Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -4.80(8.30) 40 -2.50(8.30) 100.00 -2.30 [-5.94, 1.34] 40 100.00 -2.30 [-5.94, 1.34] Test for heterogeneity: not applicable Test for overall effect: Z = 1.24 (P = 0.22) -10 -5 ò 10 Favours treatment Favours control Review DIET Analyses for adults
11 Low fat diet vs very low fat diet Comparison: Outcome 18 Change in DBP mmHg at 6 months Very low fat WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -4.00(8.30) 40 -0.30(8.30) 100.00 -3.70 [-7.34, -0.06] Total (95% CI) 40 40 100.00 -3.70 [-7.34, -0.06] Test for heterogeneity: not applicable Test for overall effect: Z = 1.99 (P = 0.05) -10 -5 ò 5 10 Favours control DIET Analyses for adults 12 LCD vs very low fat diet Review Comparison: Outcome 01 Weight change in kg over time LCD WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 Dansinger 2005 Dansinger 2 months -3.50(3.80) -3.60(3.40) 0.10 [-1.48, 1.68] 40 40 59.62

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Dansinger 6 months

Dansinger 12 months

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-3.50(5.60)

-3.00(4.90)

40

40

-3.60(6.70)

-3.30(7.30)

-10

-5

Favours treatment

40

40

20.33

20.05

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Favours control

0.10 [-2.61, 2.81]

0.30 [-2.42, 3.02]

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DIET Analyses for adults Comparison: 12 LCD vs very low fat diet 02 Change in TC mmol/l at 12 months WMD (fixed) Weight WMD (fixed) Study LCD Very low fat Ν Mean (SD) Ν Mean (SD) 95% CI or sub-category 40 -0.21(0.62) 40 -0.28(0.54) 100.00 0.07 [-0.18, 0.32] Dansinger 2005 0.07 [-0.18, 0.32] 40 40 100.00 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.54 (P = 0.59) -0.5 0.5 Favours treatment Favours control Review: **DIET** Analyses for adults 12 LCD vs very low fat diet Comparison: Outcome: 03 Change in LDLC mmol/l at 12 months LCD Very low fat WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -0.24(0.69) 40 -0.32(0.49) 100.00 0.08 [-0.18, 0.34] Total (95% CI) 40 100.00 0.08 [-0.18, 0.34] Test for heterogeneity: not applicable Test for overall effect: Z = 0.60 (P = 0.55) -0.5 0.5 Favours control Favours treatment Review **DIET Analyses for adults** Comparison: 12 LCD vs very low fat diet 04 Change in HDLC mmol/l at 12 months Outcome Study LCD Very low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 0.09(0.25) 40 -0.01(0.17) 100.00 0.10 [0.01, 0.19] Total (95% CI) 40 0.10 [0.01, 0.19] Test for heterogeneity: not applicable Test for overall effect: Z = 2.09 (P = 0.04) -0.5 Ö 0.5 Favours control Favours treatment DIET Analyses for adults 12 LCD vs very low fat diet Review Comparison: 05 Change in TG mmol/l at 12 months WMD (fixed) LCD Very low fat WMD (fixed) Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.14(0.69) 40 0.06(0.40) 100.00 -0.20 [-0.45, 0.05] 40 100.00 -0.20 [-0.45, 0.05] Test for heterogeneity: not applicable Test for overall effect: Z = 1.59 (P = 0.11) -0.5 0.5 Favours treatment Favours control Review DIET Analyses for adults 12 LCD vs very low fat diet Comparison: Outcome 06 Change in FPG mmol/l at 12 months LCD Very low fat WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.26(1.06) 40 -0.23(1.67) 100.00 -0.03 [-0.64, 0.58] Total (95% CI) 40 40 100.00 -0.03 [-0.64, 0.58] Test for heterogeneity: not applicable Test for overall effect: Z = 0.10 (P = 0.92) -0.5 0.5 ò Favours control DIET Analyses for adults 12 LCD vs very low fat diet Review Comparison: Outcome 07 Change in SBP mmHg at 12 months LCD WMD (fixed) WMD (fixed) Very low fat Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -2.70(13.00) 40 0.50(7.70) 100.00 -3.20 [-7.88, 1.48] Total (95% CI) 40 100.00 -3.20 [-7.88, 1.48] Test for heterogeneity: not applicable Test for overall effect: Z = 1.34 (P = 0.18) 10 -10 -5 ò 5

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DIET Analyses for adults Comparison: 12 LCD vs very low fat diet 08 Change in DBP mmHg at 12 months WMD (fixed) Weight WMD (fixed) Study LCD Very low fat Ν Mean (SD) Ν Mean (SD) 95% CI or sub-category 40 -1.70(6.40) 40 0.20(4.60) 100.00 -1.90 [-4.34, 0.54] Dansinger 2005 40 40 100.00 -1.90 [-4.34, 0.54] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 1.52 (P = 0.13) -10 10 Favours treatment Favours control Review: DIET Analyses for adults 12 LCD vs very low fat diet Comparison: Outcome: 09 Change in TC mmol/l at 2 months LCD Very low fat WMD (fixed) WMD (fixed) Study Weight Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -0.38(1.08) 40 -0.49(1.08) 100.00 0.11 [-0.36, 0.58] Total (95% CI) 40 100.00 0.11 [-0.36, 0.58] Test for heterogeneity: not applicable Test for overall effect: Z = 0.46 (P = 0.65) -10 -5 Ö 10 Favours treatment Review **DIET Analyses for adults** Comparison: 12 LCD vs very low fat diet 10 Change in TC mmol/l at 6 months Outcome Study LCD Very low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.21(1.08) 40 -0.30(1.08) 100.00 0.09 [-0.38, 0.56] Total (95% CI) 40 0.09 [-0.38, 0.56] Test for heterogeneity: not applicable Test for overall effect: Z = 0.37 (P = 0.71) -10 -5 Ö 10 Favours treatment Favours control DIET Analyses for adults 12 LCD vs very low fat diet Review Comparison: 11 Change in LDLC mmol/l at 2 months WMD (fixed) WMD (fixed) LCD Very low fat Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.31(0.74) 40 -0.43(0.74) 100.00 0.12 [-0.20, 0.44] 40 100.00 0.12 [-0.20, 0.44] Test for heterogeneity: not applicable Test for overall effect: Z = 0.73 (P = 0.47) -10 -5 10 Favours treatment Favours control Review DIET Analyses for adults 12 LCD vs very low fat diet Comparison: Outcome 12 Change in LDLC mmol/l at 6 months LCD Very low fat WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.18(0.74) 40 -0.27(0.74) 100.00 0.09 [-0.23, 0.41] Total (95% CI) 40 40 100.00 0.09 [-0.23, 0.41] Test for heterogeneity: not applicable Test for overall effect: Z = 0.54 (P = 0.59) -10 -5 ò 5 10 Favours control DIET Analyses for adults 12 LCD vs very low fat diet Review Comparison: Outcome 13 Change in FPG mmol/l at 2 months LCD Very low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.31(1.98) 40 -0.17(1.98) 100.00 -0.14 [-1.01, 0.73] Total (95% CI) 40 100.00 -0.14 [-1.01, 0.73] Test for heterogeneity: not applicable Test for overall effect: Z = 0.32 (P = 0.75) -10 -5 ò 5 10

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DIET Analyses for adults Comparison: 12 LCD vs very low fat diet 14 Change in FPG mmol/l at 6 months WMD (fixed) Weight WMD (fixed) Study LCD Very low fat Ν Mean (SD) Ν Mean (SD) or sub-category 40 -0.21(1.98) 40 -0.28(1.98) 100.00 0.07 [-0.80, 0.94] Dansinger 2005 0.07 [-0.80, 0.94] 40 40 100.00 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.16 (P = 0.87) -10 -5 10 Favours treatment Favours control Review: DIET Analyses for adults 12 LCD vs very low fat diet Comparison: Outcome: 15 Change in SBP mmHg at 2 months LCD Very low fat WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -4.80(12.70) 40 -1.30(12.70) 100.00 -3.50 [-9.07, 2.07] Total (95% CI) 40 100.00 -3.50 [-9.07, 2.07] Test for heterogeneity: not applicable Test for overall effect: Z = 1.23 (P = 0.22) -10 -5 0 5 10 Favours treatment Review DIET Analyses for adults Comparison: 12 LCD vs very low fat diet 16 Change in SBP mmHg at 6 months Outcome Study LCD Very low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -4.80(12.70) 40 -0.60(12.70) 100.00 -4.20 [-9.77, 1.37] Total (95% CI) 40 -4.20 [-9.77, 1.37] Test for heterogeneity: not applicable Test for overall effect: Z = 1.48 (P = 0.14) -10 -5 Ö 10 Favours treatment Favours control DIET Analyses for adults 12 LCD vs very low fat diet Review Comparison: 17 Change in DBP mmHg at 2 months WMD (fixed) WMD (fixed) LCD Very low fat Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -3.10(8.30) 40 -2.50(8.30) 100.00 -0.60 [-4.24, 3.04] 40 100.00 -0.60 [-4.24, 3.04] Test for heterogeneity: not applicable Test for overall effect: Z = 0.32 (P = 0.75) -10 -5 10 Favours control Favours treatment Review DIET Analyses for adults 12 LCD vs very low fat diet Comparison: Outcome 18 Change in DBP mmHg at 6 months LCD Very low fat WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -1.80(8.30) 40 -0.30(8.30) 100.00 -1.50 [-5.14, 2.14] Total (95% CI) 40 40 100.00 -1.50 [-5.14, 2.14] Test for heterogeneity: not applicable Test for overall effect: Z = 0.81 (P = 0.42) -10 -5 ò 5 10 Favours control DIET Analyses for adults 13 PSMF vs very low fat diet Review Comparison: Outcome 01 Weight change in kg over time LCD WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 Dansinger 2005 Dansinger 2 months -3.60(3.30) -3.60(3.40) [-1.47, 1.47] 40 40 61.73 Dansinger 6 months 40 -3.20(4.90) 40 -3.60(6.70) 20.11 0.40 [-2.17, 2.97] Dansinger 12 months 40 -2.10(4.80) 40 -3.30(7.30) 18.16 1.20 [-1.51, 3.91] -10 10 Favours treatment Favours control

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DIET Analyses for adults 13 PSMF vs very low fat diet Comparison: 02 Change in TC mmol/l at 12 months PSMF WMD (fixed) Weight WMD (fixed) Study Very low fat Ν Mean (SD) Ν Mean (SD) or sub-category 40 -0.11(0.59) 40 -0.28(0.54) 100.00 0.17 [-0.08, 0.42] Dansinger 2005 0.17 [-0.08, 0.42] 40 40 100.00 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 1.34 (P = 0.18) -0.5 0.5 Favours treatment Favours control Review: DIET Analyses for adults 13 PSMF vs very low fat diet
03 Change in LDLC mmol/l at 12 months Comparison: Outcome: PSMF Very low fat WMD (fixed) Weight WMD (fixed) Study or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.18(0.62) 40 -0.32(0.49) 100.00 0.14 [-0.10, 0.38] 0.14 [-0.10, 0.38] Total (95% CI) 40 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 1.12 (P = 0.26) -0.5 0.5 Favours control Favours treatment DIET Analyses for adults 13 PSMF vs very low fat diet Review Comparison: 04 Change in HDLC mmol/l at 12 months Outcome Study PSMF Very low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 0.09(0.18) 40 -0.01(0.17) 100.00 0.10 [0.02, 0.18] Total (95% CI) 40 0.10 [0.02, 0.18] Test for heterogeneity: not applicable Test for overall effect: Z = 2.55 (P = 0.01) -0.5 Ö 0.5 Favours control Favours treatment DIET Analyses for adults 13 PSMF vs very low fat diet Review Comparison: 05 Change in TG mmol/l at 12 months WMD (fixed) WMD (fixed) Study Very low fat Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.02(0.94) 40 0.06(0.40) 100.00 -0.08 [-0.40, 0.24] 40 100.00 -0.08 [-0.40, 0.24] Test for heterogeneity: not applicable Test for overall effect: Z = 0.50 (P = 0.62) -0.5 0.5 Favours treatment Favours control Review DIET Analyses for adults 13 PSMF vs very low fat diet Comparison: Outcome 06 Change in FPG mmol/l at 12 months PSMF Very low fat WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 0.08(0.77) 40 -0.23(1.67) 100.00 0.31 [-0.26, 0.88] Total (95% CI) 40 40 100.00 0.31 [-0.26, 0.88] Test for heterogeneity: not applicable Test for overall effect: Z = 1.07 (P = 0.29) -0.5 0.5 ò Favours control Review:

Review: DIET Analyses for adults
Comparison: 13 PSMF vs very low fat diet
Outcome: 07 Change in SBP mmHg at 12 months

| Study or sub-category  | N  | PSMF<br>Mean (SD) | N  | Very low fat<br>Mean (SD) |       |             | ID (fixed)<br>5% CI |         | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-------------------|----|---------------------------|-------|-------------|---------------------|---------|-------------|-----------------------|
| Dansinger 2005   | 40 | 0.20(12.00)       | 40 | 0.50(7.70)                |       |             | <del>-</del>        |         | 100.00      | -0.30 [-4.72, 4.12]   |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0. |    |                   | 40 |                           | ,     |             |                     |         | 100.00      | -0.30 [-4.72, 4.12]   |
|  |    |                   |    |                           | -10   | -5          | Ö                   | 5       | 10          |                       |
|  |    |                   |    |                           | Favou | rs treatmen | t Favours           | control |             |                       |

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DIET Analyses for adults 13 PSMF vs very low fat diet Comparison: 08 Change in DBP mmHg at 12 months WMD (fixed) Weight WMD (fixed) Study PSMF Very low fat Ν Mean (SD) Ν Mean (SD) 95% CI or sub-category 40 -1.40(7.50) 40 0.20(4.60) 100.00 -1.60 [-4.33, 1.13] Dansinger 2005 40 40 100.00 -1.60 [-4.33, 1.13] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 1.15 (P = 0.25) -10 10 Favours treatment Favours control Review: DIET Analyses for adults 13 PSMF vs very low fat diet
09 Change in TC mmol/l at 2 months Comparison: Outcome: WMD (fixed) WMD (fixed) Study PSMF Very low fat Weight Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -0.05(1.08) 40 -0.49(1.08) 100.00 0.44 [-0.03, 0.91] Total (95% CI) 40 100.00 0.44 [-0.03, 0.91] Test for heterogeneity: not applicable Test for overall effect: Z = 1.82 (P = 0.07) -10 -5 Ö 10 Favours treatment DIET Analyses for adults 13 PSMF vs very low fat diet Review Comparison: 10 Change in TC mmol/l at 6 months Outcome Study PSMF Very low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.02(1.08) 40 -0.30(1.08) 100.00 0.28 [-0.19, 0.75] Total (95% CI) 40 0.28 [-0.19, 0.75] Test for heterogeneity: not applicable Test for overall effect: Z = 1.16 (P = 0.25) -10 -5 Ö 10 Favours treatment Favours control DIET Analyses for adults 13 PSMF vs very low fat diet Review Comparison: 11 Change in LDLC mmol/l at 2 months WMD (fixed) PSMF Very low fat WMD (fixed) Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 0.03(0.74) 40 -0.43(0.74) 100.00 0.46 [0.14, 0.78] 40 100.00 0.46 [0.14, 0.78] Test for heterogeneity: not applicable Test for overall effect: Z = 2.78 (P = 0.005) -10 -5 10 Favours treatment Favours control Review DIET Analyses for adults 13 PSMF vs very low fat diet Comparison: Outcome 12 Change in LDLC mmol/l at 6 months PSMF Very low fat WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.07(0.74) 40 -0.27(0.74) 100.00 0.20 [-0.12, 0.52] Total (95% CI) 40 40 100.00 0.20 [-0.12, 0.52] Test for heterogeneity: not applicable Test for overall effect: Z = 1.21 (P = 0.23) -10 -5 ò 5 10 Favours control DIET Analyses for adults 13 PSMF vs very low fat diet Review Comparison: Outcome 13 Change in FPG mmol/l at 2 months PSMF WMD (fixed) WMD (fixed) Very low fat Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -0.54(1.98) 40 -0.17(1.98) 100.00 -0.37 [-1.24, 0.50] Total (95% CI) 40 100.00 -0.37 [-1.24, 0.50] Test for heterogeneity: not applicable Test for overall effect: Z = 0.84 (P = 0.40) -10 -5 ò 5 10

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DIET Analyses for adults 13 PSMF vs very low fat diet Comparison: 14 Change in FPG mmol/l at 6 months WMD (fixed) Weight WMD (fixed) Study PSMF Very low fat Ν Mean (SD) Ν Mean (SD) or sub-category 40 -0.43(1.98) 40 -0.28(1.98) 100.00 -0.15 [-1.02, 0.72] Dansinger 2005 -0.15 [-1.02, 0.72] 40 40 100.00 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.34 (P = 0.73) -10 10 Favours treatment Favours control Review: DIET Analyses for adults 13 PSMF vs very low fat diet Comparison: Outcome: 15 Change in SBP mmHg at 2 months PSMF WMD (fixed) Weight WMD (fixed) Study Very low fat Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Dansinger 2005 40 -4.20(12.70) 40 -1.30(12.70) 100.00 -2.90 [-8.47, 2.67] Total (95% CI) 40 100.00 -2.90 [-8.47, 2.67] Test for heterogeneity: not applicable Test for overall effect: Z = 1.02 (P = 0.31) -10 -5 Ö 5 10 Favours treatment DIET Analyses for adults 13 PSMF vs very low fat diet Review Comparison: 16 Change in SBP mmHg at 6 months Outcome Study PSMF Very low fat WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Dansinger 2005 40 -3.70(12.70) 40 -0.60(12.70) 100.00 -3.10 [-8.67, 2.47] Total (95% CI) 40 -3.10 [-8.67, 2.47] Test for heterogeneity: not applicable Test for overall effect: Z = 1.09 (P = 0.28) -10 -5 Ö 10 Favours treatment Favours control DIET Analyses for adults 13 PSMF vs very low fat diet Review Comparison: 17 Change in DBP mmHg at 2 months WMD (fixed) Very low fat WMD (fixed) Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -4.20(8.30) 40 -2.50(8.30) 100.00 -1.70 [-5.34, 1.94] 40 100.00 -1.70 [-5.34, 1.94] Test for heterogeneity: not applicable Test for overall effect: Z = 0.92 (P = 0.36) -10 -5 ò 10 Favours treatment Favours control Review DIET Analyses for adults 13 PSMF vs very low fat diet Comparison: Outcome 18 Change in DBP mmHg at 6 months PSMF Very low fat WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Dansinger 2005 40 -4.00(8.30) 40 -0.30(8.30) 100.00 -3.70 [-7.34, -0.06] Total (95% CI) 40 40 100.00 -3.70 [-7.34, -0.06] Test for heterogeneity: not applicable Test for overall effect: Z = 1.99 (P = 0.05) -10 -5 ò 5 10 Favours control **DIET Analyses for adults** Review 14 High protein diet vs standard-medium protein diet Comparison: Outcome 01 Weight change in kg at 16 weeks ΗP SP WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Brinkworth 2004 21 -8.18(3.02) 2.2 -8.55(3.10) 100.00 0.37 [-1.46, 2.20] Total (95% CI) 22 100.00 0.37 [-1.46, 2.20] Test for heterogeneity: not applicable Test for overall effect: Z = 0.40 (P = 0.69)

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DIET Analyses for adults

14 High protein diet vs standard-medium protein diet 02 Weight change in kg at 6 months Comparison:

Outcome:

| Study or sub-category   | N  | HP<br>Mean (SD) | N  | SP<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------|----|-----------------|-----|-----------------------|-------------|-----------------------|
| Due 2004  | 23 | -9.40(8.58)     | 23 | -5.90(7.58)     |     | -                     | 100.00      | -3.50 [-8.18, 1.18]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                 | 23 |                 | _   |                       | 100.00      | -3.50 [-8.18, 1.18]   |
| -   |    |                 |    |                 | -10 | -5 0 5                | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

DIET Analyses for adults

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Comparison: Outcome: 14 High protein diet vs standard-medium protein diet 03 Weight change in kg at 12 months

| Study or sub-category  | N  | HP<br>Mean (SD) | N  | SP<br>Mean (SD) |     | WMD (fixed)<br>95% CI |     | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------|----|-----------------|-----|-----------------------|-----|-------------|-----------------------|
| Due 2004   | 23 | -6.20(7.67)     | 18 | -4.30(7.13)     | -   | -                     |     | 100.00      | -1.90 [-6.45, 2.65]   |
| Total (95% CI) Test for heterogeneity: not appli Test for overall effect: Z = 0.82 ( |    |                 | 18 |                 | -   |                       |     | 100.00      | -1.90 [-6.45, 2.65]   |
|  |    |                 |    |                 | -10 | -5 0                  | 5 1 | 0           |                       |

Review: Comparison:

DIET Analyses for adults
14 High protein diet vs standard-medium protein diet

04 Weight change in kg at 68 weeks

| Study or sub-category   | N  | HP<br>Mean (SD) | N  | SP<br>Mean (SD) |     | WMD (fix<br>95% C |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------|----|-----------------|-----|-------------------|---|-------------|-----------------------|
| Brinkworth 2004   | 21 | -3.85(5.60)     | 22 | -2.73(3.53)     |     | -                 | • | 100.00      | -1.12 [-3.93, 1.69]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |    |                 | 22 |                 |     |                   |   | 100.00      | -1.12 [-3.93, 1.69]   |
|   |    |                 |    |                 | -10 | -5 0              | 5 | 10          |                       |

Review:

DIET Analyses for adults 14 High protein diet vs standard-medium protein diet Comparison:

Outcome: 05 Weight change in kg at 24 months

| Study<br>or sub-category  | N | HP<br>Mean (SD) | N | SP<br>Mean (SD) |          |    | ID (fixed)<br>5% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|---|-----------------|---|-----------------|----------|----|---------------------|---|-------------|-----------------------|
| Due 2004  | 3 | -6.40(7.73)     | 6 | -3.20(6.82)     | <b>←</b> | -  |                     |   | 100.00      | -3.20 [-13.51, 7.11]  |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |   |                 | 6 |                 |          |    |                     |   | 100.00      | -3.20 [-13.51, 7.11]  |
|   |   |                 |   |                 | -10      | -5 | Ö                   | 5 | 10          |                       |

Review: Comparison:

DIET Analyses for adults 14 High protein diet vs standard-medium protein diet

Outcome: 06 Weight change in kg over time

|    |                | N  | Mean (SD)   | 95% CI  | %   | 95% CI  |
|----|----------------|--|---|---|---|---|
|    |                |  |   |   |   |   |
| 21 | -8.18(3.02)    | 22   | -8.55(3.10)   | <del>_</del>  | 70.28   | 0.37 [-1.46, 2.20]  |
| 21 | -3.85(5.60)    | 22   | -2.73(3.53)   | <del></del>   | 29.72   | -1.12 [-3.93, 1.69]   |
|    |                |  |   |   |   |   |
| 23 | -9.40(8.58)    | 23   | -5.90(7.58)   | <del></del>   | 40.14   | -3.50 [-8.18, 1.18]   |
| 23 | -6.20(7.67)    | 18   | -4.30(7.13)   | <del></del> _   | 42.51   | -1.90 [-6.45, 2.65]   |
| 11 | -6.40(7.73)    | 6  | -3.20(6.82)   | •   | 17.35   | -3.20 [-10.32, 3.92]  |
|    | 21<br>23<br>23 | 21 -3.85(5.60)<br>23 -9.40(8.58)<br>23 -6.20(7.67) | 21 -3.85(5.60) 22<br>23 -9.40(8.58) 23<br>23 -6.20(7.67) 18 | 21 -3.85(5.60) 22 -2.73(3.53)<br>23 -9.40(8.58) 23 -5.90(7.58)<br>23 -6.20(7.67) 18 -4.30(7.13) | 21 -3.85(5.60) 22 -2.73(3.53)<br>23 -9.40(8.58) 23 -5.90(7.58)<br>23 -6.20(7.67) 18 -4.30(7.13) | 21 -3.85(5.60) 22 -2.73(3.53) 29.72<br>23 -9.40(8.58) 23 -5.90(7.58) 40.14<br>23 -6.20(7.67) 18 -4.30(7.13) 42.51 |

Favours treatment Favours control

Review: DIET Analyses for adults

14 High protein diet vs standard-medium protein diet 07 Change in LDLC mmol/l at 16 weeks Comparison:

Outcome:

| Study or sub-category   | N  | HP<br>Mean (SD) | N  | SP<br>Mean (SD) |     |    | MD (fixed)<br>95% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------|----|-----------------|-----|----|----------------------|---|-------------|-----------------------|
| Brinkworth 2004   | 21 | -0.20(0.74)     | 22 | -0.30(0.74)     |     |    | ·                    |   | 100.00      | 0.10 [-0.34, 0.54]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |    |                 | 22 |                 |     |    | •                    |   | 100.00      | 0.10 [-0.34, 0.54]    |
|   |    |                 |    |                 | -10 | -5 | Ö                    | 5 | 10          |                       |
|   |    |                 |    |                 | F   |    | -4 F                 |   |             |                       |

Management of obesity: full guidance DRAFT (March 2006)

**DIET Analyses for adults** Comparison: 14 High protein diet vs standard-medium protein diet 08 Change in LDLC mmol/l at 68 weeks SP WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) or sub-category 21 0.00(0.74) 22 0.40(0.74) 100.00 -0.40 [-0.84, 0.04] Brinkworth 2004 22 100.00 -0.40 [-0.84, 0.04] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 1.77 (P = 0.08) -10 10 Favours treatment Favours control **DIET** Analyses for adults Comparison: 14 High protein diet vs standard-medium protein diet Outcome: 09 Change in FPG mmol/l at 16 weeks SP WMD (fixed) Weight WMD (fixed) Study Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Brinkworth 2004 21 0.10(3.11) 22 -0.10(3.11) 100.00 0.20 [-1.66, 2.06] Total (95% CI) 100.00 0.20 [-1.66, 2.06] Test for heterogeneity: not applicable Test for overall effect: Z = 0.21 (P = 0.83) -10 -5 Ö 5 10 Favours treatment Review **DIET Analyses for adults** 14 High protein diet vs standard-medium protein diet Comparison: 10 Change in FPG mmol/l at 6 months Outcome SP WMD (fixed) WMD (fixed) Study Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Due 2004 23 0.00(3.11) 23 0.00(3.11) 100.00 0.00 [-1.80, 1.80] Total (95% CI) 23 0.00 [-1.80, 1.80] Test for heterogeneity: not applicable Test for overall effect: Z = 0.00 (P = 1.00) -10 -5 Ö 10 Favours treatment Favours control **DIET Analyses for adults** 14 High protein diet vs standard-medium protein diet Comparison: 11 Change in FPG mmol/l at 12 months WMD (fixed) WMD (fixed) Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Due 2004 23 0.10(3.11) 1.8 0.30(3.11) 100.00 -0.20 [-2.12, 1.72] 100.00 -0.20 [-2.12, 1.72] Total (95% CI) 18 Test for heterogeneity: not applicable Test for overall effect: Z = 0.20 (P = 0.84) -10 -5 10 Favours treatment Favours control Review DIET Analyses for adults
14 High protein diet vs standard-medium protein diet Comparison: Outcome 12 Change in FPG mmol/l at 68 weeks ΗP SP WMD (fixed) Weight WMD (fixed) or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Brinkworth 2004 21 0.30(3.11) 2.2 0.10(3.11) 100.00 0.20 [-1.66, 2.06] Total (95% CI) 21 22 100.00 0.20 [-1.66, 2.06] Test for heterogeneity: not applicable Test for overall effect: Z = 0.21 (P = 0.83) -10 -5 5 10 Favours control **DIET Analyses for adults** Review 14 High protein diet vs standard-medium protein diet Comparison: Outcome 13 Change in SBP mmHg at 16 weeks SP WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Brinkworth 2004 21 -4.90(12.70) 2.2 -3.60(12.70) 100.00 -1.30 [-8.89, 6.29]

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Total (95% CI)

Test for heterogeneity: not applicable Test for overall effect: Z = 0.34 (P = 0.74)

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100.00

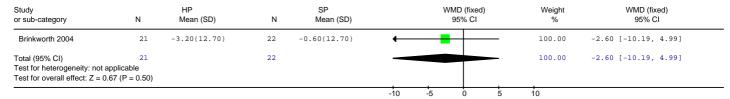
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-1.30 [-8.89, 6.29]

**DIET Analyses for adults** 

14 High protein diet vs standard-medium protein diet Comparison:

14 Change in SBP mmHg at 68 weeks



Favours treatment Favours control

DIET Analyses for adults Comparison:

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Comparison:

14 High protein diet vs standard-medium protein diet

Outcome: 15 Change in DBP mmHg at 16 weeks

| Study or sub-category   | N  | HP<br>Mean (SD) | N  | SP<br>Mean (SD) |     | WMD (fixed<br>95% CI | ) | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------|----|-----------------|-----|----------------------|---|-------------|-----------------------|
| Brinkworth 2004   | 21 | -2.70(8.30)     | 22 | -0.90(8.30)     |     | -                    | - | 100.00      | -1.80 [-6.76, 3.16]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |    |                 | 22 |                 | _   |                      | - | 100.00      | -1.80 [-6.76, 3.16]   |
|   |    |                 |    |                 | -10 | -5 0                 | 5 | 10          |                       |

Favours treatment

Favours treatment Favours control

Favours treatment Favours control

Favours control

DIET Analyses for adults
14 High protein diet vs standard-medium protein diet

16 Change in DBP mmHg at 68 weeks Outcome

SP WMD (fixed) WMD (fixed) Study Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Brinkworth 2004 -2.40(8.30) 22 -1.20(8.30) 100.00 -1.20 [-6.16, 3.76] Total (95% CI) 22 -1.20 [-6.16, 3.76] Test for heterogeneity: not applicable Test for overall effect: Z = 0.47 (P = 0.64) -10 -5 Ö 10 Favours treatment Favours control

Behavioural interventions 3.2

REHAVIOUR THERAPY Analyses for adults

01 Diet and BT vs usual care 01 Weight change over time Comparison Outcome

| Study                |    | Diet and BT |    | Usual care  |     |    | D (fixed) |   | Weight | WMD (fixed)         |
|----------------------|----|-------------|----|-------------|-----|----|-----------|---|--------|---------------------|
| or sub-category      | N  | Mean (SD)   | N  | Mean (SD)   |     | 9: | 5% CI     |   | %      | 95% CI              |
| Munsch 2003 16 weeks | 41 | -3.80(6.99) | 12 | -0.70(6.11) | _   |    |           |   | 57.40  | -3.10 [-7.17, 0.97] |
| Munsch 2003 12months | 41 | -4.70(7.25) | 8  | -0.40(6.01) | . — |    | +         |   | 42.60  | -4.30 [-9.02, 0.42] |
|                      |    |             |    |             | -10 | -5 | Ö         | 5 | 10     |                     |

BEHAVIOUR THERAPY Analyses for adults Review:

Comparison 02 Diet and BT vs information Outcome 01 Weight change in kg at 18 months

WMD (fixed) Study Diet and BT Information Weight WMD (fixed) Mean (SD) N Mean (SD) 95% CI 95% CI or sub-category % -4.61(7.22) 78 -1.10(6.23) -3.51 [-5.60, -1.42] 82 100.00 Messier 2004 Total (95% CI) 82 78 100.00 -3.51 [-5.60, -1.42] Test for heterogeneity: not applicable Test for overall effect: Z = 3.30 (P = 0.0010) -10 -5 10

BEHAVIOUR THERAPY Analyses for adults 03 Active diet and BT vs passive (information only) diet and BT 01 Weight change in kg at 3 months Comparison: Outcome:

| Study or sub-category          | N                       | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-------------------------|---------------------------------|----|----------------------------------|-----|-----------------------|-------------|-----------------------|
| 01 LCD                         |                         |                                 |    |                                  |     |                       |             |                       |
| Cousin FAM                     | 27                      | -3.00(6.76)                     | 14 | -0.90(6.17)                      |     |                       | 49.42       | -2.10 [-6.22, 2.02]   |
| Cousins IND                    | 32                      | -2.60(6.65)                     | 13 | -0.90(6.17)                      |     |                       | 50.58       | -1.70 [-5.77, 2.37]   |
| Subtotal (95% CI)              | 59                      |                                 | 27 |                                  |     |                       | 100.00      | -1.90 [-4.79, 1.00]   |
| Test for heterogeneity: Chi-   | $^{2}$ = 0.02, df = 1 ( | $P = 0.89$ ), $I^2 = 0\%$       |    |                                  |     | _                     |             |                       |
| Test for overall effect: Z = 1 | 1.29 (P = 0.20)         |                                 |    |                                  |     |                       |             |                       |
| Total (95% CI)                 | 59                      |                                 | 27 |                                  |     |                       | 100.00      | -1.90 [-4.79, 1.00]   |
| Test for heterogeneity: Chi-   | $^{2}$ = 0.02, df = 1 ( | $P = 0.89$ ), $I^2 = 0\%$       |    |                                  |     | _                     |             |                       |
| Test for overall effect: Z = 1 | 1.29 (P = 0.20)         | •                               |    |                                  |     |                       |             |                       |
|                                |                         |                                 |    |                                  | -10 | -5 0                  | 5 10        |                       |

Favours treatment Favours control

Favours treatment Favours control

Review:

BEHAVIOUR THERAPY Analyses for adults
03 Active diet and BT vs passive (information only) diet and BT Comparison:

02 Weight change in kg at 6 months

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| Study or sub-category                    | N                   | Active diet and BT<br>Mean (SD)   | N  | Passive diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--|---------------------|-----------------------------------|----|----------------------------------|-----------------------|----------|-----------------------|
| 01 LCD                                   |                     |                                   |    |                                  |                       |          |                       |
| Cousin FAM                               | 27                  | -4.50(7.19)                       | 14 | -0.20(5.97)                      |                       | 19.05    | -4.30 [-8.44, -0.16]  |
| Cousins IND                              | 32                  | -3.30(6.85)                       | 13 | -0.20(5.97)                      | <del></del>           | 20.19    | -3.10 [-7.12, 0.92]   |
| Subtotal (95% CI)                        | 59                  |                                   | 27 |                                  |                       | 39.24    | -3.68 [-6.57, -0.80]  |
| Test for heterogeneity: Chi <sup>2</sup> | e = 0.17, df = 1 (I | P = 0.68), I <sup>2</sup> = 0%    |    |                                  | _                     |          |                       |
| Test for overall effect: Z = 2           | 2.50 (P = 0.01)     |                                   |    |                                  |                       |          |                       |
| 02 VLCD                                  |                     |                                   |    |                                  |                       |          |                       |
| Wing 1998                                | 35                  | -9.10(6.40)                       | 32 | -1.50(2.70)                      | <del></del>           | 60.76    | -7.60 [-9.92, -5.28]  |
| Subtotal (95% CI)                        | 35                  |                                   | 32 |                                  |                       | 60.76    | -7.60 [-9.92, -5.28]  |
| Test for heterogeneity: not a            | applicable          |                                   |    |                                  | _                     |          |                       |
| Test for overall effect: Z = 6           |                     | 1)                                |    |                                  |                       |          |                       |
| Total (95% CI)                           | 94                  |                                   | 59 |                                  | •                     | 100.00   | -6.06 [-7.87, -4.26]  |
| Test for heterogeneity: Chi <sup>2</sup> | 2 = 4.47. df = 2 (I | P = 0.11), I <sup>2</sup> = 55.3% |    |                                  | •                     |          |                       |
| Test for overall effect: Z = 6           |                     | , .                               |    |                                  |                       |          |                       |
|  |                     |                                   |    |                                  | -10 -5 0 5            | 10       |                       |

BEHAVIOUR THERAPY Analyses for adults Review:

03 Active diet and BT vs passive (information only) diet and BT 03 Weight change in kg at 12 months Comparison: Outcome:

| Study or sub-category  | N                    | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |             | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----------------------|---------------------------------|----|----------------------------------|-------------|-----------------------|-------------|-----------------------|
| 01 LCD   |                      |                                 |    |                                  |             |                       |             |                       |
| Cousin FAM   | 27                   | -3.86(6.99)                     | 14 | -0.70(6.11)                      |             | <del></del>           | 24.05       | -3.16 [-7.31, 0.99]   |
| Cousins IND  | 32                   | -2.10(6.51)                     | 13 | -0.70(6.11)                      | _           |                       | 25.66       | -1.40 [-5.41, 2.61]   |
| Subtotal (95% CI)  | 59                   |                                 | 27 |                                  | -           |                       | 49.71       | -2.25 [-5.14, 0.63]   |
| Test for heterogeneity: Chi <sup>2</sup>                                   | t = 0.36, df = 1 (1) | P = 0.55), I <sup>2</sup> = 0%  |    |                                  |             | _                     |             |                       |
| Test for overall effect: Z = 1   | .53 (P = 0.13)       | -                               |    |                                  |             |                       |             |                       |
| 02 VLCD  |                      |                                 |    |                                  |             |                       |             |                       |
| Wing 1998  | 33                   | -5.50(6.90)                     | 29 | -0.30(4.50)                      | _           |                       | 50.29       | -5.20 [-8.07, -2.33]  |
| Subtotal (95% CI)  | 33                   |                                 | 29 |                                  |             | <b>►</b>              | 50.29       | -5.20 [-8.07, -2.33]  |
| Test for heterogeneity: not a<br>Test for overall effect: Z = 3            |                      | )                               |    |                                  |             |                       |             |                       |
| Total (95% CI)   | 92                   |                                 | 56 |                                  | •           | <b>→</b>              | 100.00      | -3.73 [-5.77, -1.70]  |
| Test for heterogeneity: Chi <sup>2</sup><br>Test for overall effect: Z = 3 |                      |                                 |    |                                  |             |                       |             |                       |
|  |                      |                                 |    |                                  | -10 -5      | 0 5                   | 10          |                       |
|  |                      |                                 |    |                                  | Favours tre | atment Favours co     | ntrol       |                       |

Review: Comparison:

BEHAVIOUR THERAPY Analyses for adults
03 Active diet and BT vs passive (information only) diet and BT

04 Weight change in kg at 24 months

| Study or sub-category   | N               | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |       |              | ID (fixed)<br>5% CI |           | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------------|---------------------------------|----|----------------------------------|-------|--------------|---------------------|-----------|-------------|-----------------------|
| 01 VLCD   |                 |                                 |    |                                  |       |              |                     |           |             |                       |
| Wing 1998   | 35              | -2.10(7.60)                     | 31 | -0.30(4.50)                      |       | _            | +                   |           | 100.00      | -1.80 [-4.77, 1.17]   |
| Subtotal (95% CI)   | 35              |                                 | 31 |                                  |       |              |                     |           | 100.00      | -1.80 [-4.77, 1.17]   |
| Test for heterogeneity: not<br>Test for overall effect: Z = 1 |                 |                                 |    |                                  |       |              |                     |           |             |                       |
| rest for overall effect. Z = 1                                | 1.13 (1 = 0.24) |                                 |    |                                  |       |              |                     |           |             |                       |
| Total (95% CI)  | 35              |                                 | 31 |                                  |       |              | -                   |           | 100.00      | -1.80 [-4.77, 1.17]   |
| Test for heterogeneity: not                                   | applicable      |                                 |    |                                  |       |              |                     |           |             |                       |
| Test for overall effect: $Z = 1$                              | I.19 (P = 0.24) |                                 |    |                                  |       |              |                     |           |             |                       |
|   |                 |                                 |    |                                  | -10   | -5           | 0                   | 5 1       | 0           |                       |
|   |                 |                                 |    |                                  | Favou | ırs treatmen | t Favours           | s control |             |                       |

BEHAVIOUR THERAPY Analyses for adults
03 Active diet and BT vs passive (information only) diet and BT Comparison: Outcome:

05 Weight change over time

| Study or sub-category | N  | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|---------------------------------|----|----------------------------------|-----------------------|-------------|-----------------------|
| 01 LCD Individual     |    |                                 |    |                                  |                       |             |                       |
| Cousins IND 12months  | 32 | -2.10(6.51)                     | 13 | -0.70(6.11)                      | <del></del>           | 33.66       | -1.40 [-5.41, 2.61]   |
| Cousins IND 3 months  | 32 | -2.60(6.65)                     | 13 | -0.90(6.17)                      | <del></del>           | 32.77       | -1.70 [-5.77, 2.37]   |
| Cousins IND 6 months  | 32 | -3.30(6.85)                     | 13 | -0.20(5.97)                      | <del></del>           | 33.57       | -3.10 [-7.12, 0.92]   |
| 02 LCD Family         |    |                                 |    |                                  |                       |             |                       |
| Cousins FAM 12months  | 27 | -3.86(6.99)                     | 14 | -0.70(6.11)                      | <del></del>           | 33.13       | -3.16 [-7.31, 0.99]   |
| Cousins FAM 3 months  | 27 | -3.00(6.76)                     | 14 | -0.90(6.17)                      | <del></del>           | 33.62       | -2.10 [-6.22, 2.02]   |
| Cousins FAM 6 months  | 27 | -4.50(7.19)                     | 14 | -0.20(5.97)                      | <del></del>           | 33.25       | -4.30 [-8.44, -0.16]  |
| 03 VLCD               |    |                                 |    |                                  |                       |             |                       |
| Wing 1998 6 months    | 35 | -9.10(6.40)                     | 32 | -1.50(2.70)                      | <del></del>           | 44.25       | -7.60 [-9.92, -5.28]  |
| Wing 1998 12 months   | 33 | -5.50(6.90)                     | 29 | -0.30(4.50)                      | <del></del>           | 28.89       | -5.20 [-8.07, -2.33]  |
| Wing 1998 24 months   | 35 | -2.10(7.60)                     | 31 | -0.30(4.50)                      | <del></del>           | 26.86       | -1.80 [-4.77, 1.17]   |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

BEHAVIOUR THERAPY Analyses for adults Review:

03 Active diet and BT vs passive (information only) diet and BT 06 Change in TC mmol/l at 6 months Comparison: Outcome:

| Study or sub-category          | N                | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|------------------|---------------------------------|----|----------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD                        |                  |                                 |    |                                  |                       |             |                       |
| Wing 1998                      | 35               | -0.49(0.71)                     | 32 | 0.12(0.50)                       |                       | 100.00      | -0.61 [-0.90, -0.32]  |
| Subtotal (95% CI)              | 35               |                                 | 32 |                                  |                       | 100.00      | -0.61 [-0.90, -0.32]  |
| Test for heterogeneity: not a  | applicable       |                                 |    |                                  |                       |             |                       |
| Test for overall effect: Z = 4 | .09 (P < 0.0001) | )                               |    |                                  |                       |             |                       |
| Total (95% CI)                 | 35               |                                 | 32 |                                  |                       | 100.00      | -0.61 [-0.90, -0.32]  |
| Test for heterogeneity: not a  | applicable       |                                 |    |                                  |                       |             |                       |
| Test for overall effect: Z = 4 |                  | )                               |    |                                  |                       |             |                       |
| -                              |                  |                                 |    |                                  | -1 -0.5 0             | 0.5 1       |                       |

BEHAVIOUR THERAPY Analyses for adults Review:

Comparison: 03 Active diet and BT vs passive (information only) diet and BT

07 Change in TC mmol/l at 12 months Outcome:

| Study or sub-category  | N A          | ctive diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |        | WMD (f<br>95% | ,               | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------|--------------------------------|----|----------------------------------|--------|---------------|-----------------|-------------|-----------------------|
| 01 VLCD  |              |                                |    |                                  |        |               |                 |             |                       |
| Wing 1998  | 33           | 0.26(0.76)                     | 29 | 0.39(0.70)                       |        |               | _               | 100.00      | -0.13 [-0.49, 0.23]   |
| Subtotal (95% CI)  | 33           |                                | 29 |                                  |        |               | _               | 100.00      | -0.13 [-0.49, 0.23]   |
| Test for heterogeneity: not ap   | plicable     |                                |    |                                  |        |               |                 |             |                       |
| Test for overall effect: Z = 0.7   | 0 (P = 0.48) |                                |    |                                  |        |               |                 |             |                       |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 0.7 |              |                                | 29 |                                  |        |               | -               | 100.00      | -0.13 [-0.49, 0.23]   |
|  |              |                                |    |                                  | -1     | -0.5 0        | 0.5             | 1           |                       |
|  |              |                                |    |                                  | Favour | s treatment   | Favours control |             |                       |

Review:

BEHAVIOUR THERAPY Analyses for adults 03 Active diet and BT vs passive (information only) diet and BT 08 Change in TC mmol/l at 24 months Comparison: Outcome:

| Subtotal (95% CI) 35 31 100.00 -0.30 [- Test for heterogeneity: not applicable Test for overall effect: Z = 2.14 (P = 0.03)  Total (95% CI) 35 31 100.00 -0.30 [- | WMD (fixed)<br>95% CI |
|---|-----------------------|
| Subotal (95% CI) 35 31 100.00 -0.30 [- Test for heterogeneity: not applicable Test for overall effect: Z = 2.14 (P = 0.03)  Total (95% CI) 35 31 100.00 -0.30 [-  |                       |
| Test for heterogeneity: not applicable Test for overall effect: Z = 2.14 (P = 0.03)   | 0.58, -0.02]          |
| Test for overall effect: Z = 2.14 (P = 0.03)  Total (95% CI) 35 31 100.00 -0.30 [-  | -0.58, -0.02]         |
| Total (95% CI) 35 31 100.00 -0.30 [-  |                       |
|   |                       |
| Toot for hotorogonality not applicable  | -0.58, -0.02]         |
| Test for overall effect: Z = 2.14 (P = 0.03)  |                       |

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BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT 09 Change in LDLC mmol/l at 6 months Comparison:

Outcome:

| Study or sub-category        | N                | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|------------------|---------------------------------|----|----------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD                      |                  |                                 |    |                                  |                       |             |                       |
| Wing 1998                    | 35               | -0.32(0.60)                     | 32 | 0.08(0.46)                       | <del></del>           | 100.00      | -0.40 [-0.65, -0.15]  |
| Subtotal (95% CI)            | 35               |                                 | 32 |                                  |                       | 100.00      | -0.40 [-0.65, -0.15]  |
| Test for heterogeneity: not  | applicable       |                                 |    |                                  |                       |             |                       |
| Test for overall effect: Z = | 3.08 (P = 0.002) |                                 |    |                                  |                       |             |                       |
| Total (95% CI)               | 35               |                                 | 32 |                                  |                       | 100.00      | -0.40 [-0.65, -0.15]  |
| Test for heterogeneity: not  | applicable       |                                 |    |                                  |                       |             |                       |
| Test for overall effect: Z = | 3.08 (P = 0.002) |                                 |    |                                  |                       |             |                       |
|                              |                  |                                 |    |                                  | -1 -0.5 0 0.5         | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT 10 Change in LDLC mmol/l at 12 months Comparison:

Outcome:

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| Study or sub-category              | N A            | ctive diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) | ,      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|----------------|--------------------------------|----|----------------------------------|--------|-----------------------|-------------|-----------------------|
| 01 VLCD                            |                |                                |    |                                  |        |                       |             |                       |
| Wing 1998                          | 33             | 0.12(0.73)                     | 29 | 0.24(0.66)                       |        | <del></del>           | 100.00      | -0.12 [-0.47, 0.23]   |
| Subtotal (95% CI)                  | 33             |                                | 29 |                                  | -      |                       | 100.00      | -0.12 [-0.47, 0.23]   |
| Test for heterogeneity: not a      | applicable     |                                |    |                                  |        | _                     |             |                       |
| Test for overall effect: $Z = 0$ . | .68 (P = 0.50) |                                |    |                                  |        |                       |             |                       |
| Total (95% CI)                     | 33             |                                | 29 |                                  | -      |                       | 100.00      | -0.12 [-0.47, 0.23]   |
| Test for heterogeneity: not a      | applicable     |                                |    |                                  |        |                       |             |                       |
| Test for overall effect: $Z = 0$ . | .68 (P = 0.50) |                                |    |                                  |        |                       |             |                       |
|                                    |                |                                |    | -                                | 1 -0.5 | 0 0.5                 | 1           |                       |

Review:

BEHAVIOUR THERAPY Analyses for adults
03 Active diet and BT vs passive (information only) diet and BT Comparison:

Outcome: 11 Change in LDLC mmol/l at 24 months

| Study or sub-category             | N          | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |    |      | (fixed)<br>6 CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|---------------------------------|----|----------------------------------|----|------|-----------------|-------------|-----------------------|
| 01 VLCD                           |            |                                 |    |                                  |    |      |                 |             |                       |
| Wing 1998                         | 35         | -0.16(0.63)                     | 31 | 0.03(0.46)                       |    | _    | _               | 100.00      | -0.19 [-0.45, 0.07]   |
| Subtotal (95% CI)                 | 35         |                                 | 31 |                                  |    |      | -               | 100.00      | -0.19 [-0.45, 0.07]   |
| Test for heterogeneity: not app   | licable    |                                 |    |                                  |    | _    |                 |             |                       |
| Test for overall effect: Z = 1.41 | (P = 0.16) |                                 |    |                                  |    |      |                 |             |                       |
| Total (95% CI)                    | 35         |                                 | 31 |                                  |    |      | -               | 100.00      | -0.19 [-0.45, 0.07]   |
| Test for heterogeneity: not app   | licable    |                                 |    |                                  |    | _    |                 |             |                       |
| Test for overall effect: Z = 1.41 | (P = 0.16) |                                 |    |                                  |    |      |                 |             |                       |
|                                   |            |                                 |    |                                  | -1 | -0.5 | 0 0.5           | 1           |                       |

BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT Comparison:

Outcome: 12 Change in HDLC mmol/l at 6 months

| Study or sub-category                  | N     | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |    | ,         | WMD (fixed)<br>95% CI |              | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------|---------------------------------|----|----------------------------------|----|-----------|-----------------------|--------------|-------------|-----------------------|
| 01 VLCD                                |       |                                 |    |                                  |    |           |                       |              |             |                       |
| Wing 1998                              | 35    | -0.10(0.17)                     | 32 | -0.02(0.11)                      |    |           | _                     |              | 100.00      | -0.08 [-0.15, -0.01]  |
| Subtotal (95% CI)                      | 35    |                                 | 32 |                                  |    |           |                       |              | 100.00      | -0.08 [-0.15, -0.01]  |
| Test for heterogeneity: not applicab   |       |                                 |    |                                  |    |           |                       |              |             |                       |
| Test for overall effect: Z = 2.31 (P = | 0.02) |                                 |    |                                  |    |           |                       |              |             |                       |
| Total (95% CI)                         | 35    |                                 | 32 |                                  |    |           |                       |              | 100.00      | -0.08 [-0.15, -0.01]  |
| Test for heterogeneity: not applicable | e     |                                 |    |                                  |    |           | <b>*</b>              |              |             |                       |
| Test for overall effect: Z = 2.31 (P = |       |                                 |    |                                  |    |           |                       |              |             |                       |
|  |       |                                 |    |                                  | -1 | -0.5      | 0                     | 0.5          | 1           |                       |
|  |       |                                 |    |                                  | Fa | avours co | ntrol Favo            | urs treatmer | it          |                       |

BEHAVIOUR THERAPY Analyses for adults Review:

Comparison: Outcome: 03 Active diet and BT vs passive (information only) diet and BT 13 Change in HDLC mmol/l at 12 months

| Study or sub-category   | N A | ctive diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |     | WMD (fix<br>95% C | ,              | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|--------------------------------|----|----------------------------------|-----|-------------------|----------------|-------------|-----------------------|
| 01 VLCD   |     |                                |    |                                  |     |                   |                |             |                       |
| Wing 1998   | 33  | 0.10(0.16)                     | 29 | 0.08(0.16)                       |     | -                 |                | 100.00      | 0.02 [-0.06, 0.10]    |
| Subtotal (95% CI)   | 33  |                                | 29 |                                  |     | •                 |                | 100.00      | 0.02 [-0.06, 0.10]    |
| Test for heterogeneity: not appress for overall effect: $Z = 0.45$                  |     |                                |    |                                  |     |                   |                |             |                       |
| Total (95% CI) Test for heterogeneity: not app<br>Test for overall effect: Z = 0.49 |     |                                | 29 |                                  |     | •                 |                | 100.00      | 0.02 [-0.06, 0.10]    |
|   |     |                                |    |                                  | -1  | -0.5 0            | 0.5            | 1           |                       |
|   |     |                                |    |                                  | Fav | ours control F    | avours treatme | nt          |                       |

BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT 14 Change in HDLC mmol/l at 24 months Comparison:

Outcome:

| Study or sub-category   | N A     | ctive diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|---------|--------------------------------|----|----------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD   |         |                                |    |                                  |                       |             |                       |
| Wing 1998   | 35      | 0.02(0.20)                     | 31 | 0.04(0.24)                       | <del>-</del>          | 100.00      | -0.02 [-0.13, 0.09]   |
| Subtotal (95% CI)   | 35      |                                | 31 |                                  | •                     | 100.00      | -0.02 [-0.13, 0.09]   |
| Test for heterogeneity: not applica   | ble     |                                |    |                                  | 1                     |             |                       |
| Test for overall effect: Z = 0.37 (P  | = 0.72) |                                |    |                                  |                       |             |                       |
| Total (95% CI)  | 35      |                                | 31 |                                  | •                     | 100.00      | -0.02 [-0.13, 0.09]   |
| Test for heterogeneity: not applica<br>Test for overall effect: Z = 0.37 (P |         |                                |    |                                  |                       |             |                       |
|   |         |                                |    |                                  | 1 -0.5 0 0.5          | 1           |                       |

Favours control Favours treatment

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT 15 Change in TG mmol/l at 6 months Comparison:

Outcome:

1

2

3

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| Study or sub-category             | N          | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|---------------------------------|----|----------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD                           |            |                                 |    |                                  |                       |             |                       |
| Wing 1998                         | 35         | -0.30(1.45)                     | 32 | 0.29(0.32)                       | <b>←</b>              | 100.00      | -0.59 [-1.08, -0.10]  |
| Subtotal (95% CI)                 | 35         |                                 | 32 |                                  |                       | 100.00      | -0.59 [-1.08, -0.10]  |
| Test for heterogeneity: not appl  | icable     |                                 |    |                                  |                       |             |                       |
| Test for overall effect: Z = 2.35 | (P = 0.02) |                                 |    |                                  |                       |             |                       |
| Total (95% CI)                    | 35         |                                 | 32 |                                  |                       | 100.00      | -0.59 [-1.08, -0.10]  |
| Test for heterogeneity: not appl  | icable     |                                 |    |                                  |                       |             |                       |
| Test for overall effect: Z = 2.35 |            |                                 |    |                                  |                       |             |                       |
|                                   |            |                                 |    |                                  | -1 -0.5 0             | 0.5 1       |                       |

Review:

BEHAVIOUR THERAPY Analyses for adults 03 Active diet and BT vs passive (information only) diet and BT Comparison:

Outcome: 16 Change in TG mmol/l at 12 months

| Study or sub-category              | N A           | ctive diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |          | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|---------------|--------------------------------|----|----------------------------------|----------|-----------------------|-------------|-----------------------|
| 01 VLCD                            |               |                                |    |                                  |          |                       |             |                       |
| Wing 1998                          | 33            | 0.55(3.77)                     | 29 | 0.40(1.25)                       | <b>←</b> |                       | 100.00      | 0.15 [-1.21, 1.51]    |
| Subtotal (95% CI)                  | 33            |                                | 29 |                                  |          |                       | 100.00      | 0.15 [-1.21, 1.51]    |
| Test for heterogeneity: not a      | pplicable     |                                |    |                                  |          |                       |             |                       |
| Test for overall effect: $Z = 0$ . | 22 (P = 0.83) |                                |    |                                  |          |                       |             |                       |
| Total (95% CI)                     | 33            |                                | 29 |                                  |          |                       | 100.00      | 0.15 [-1.21, 1.51]    |
| Test for heterogeneity: not a      | pplicable     |                                |    |                                  |          |                       |             |                       |
| Test for overall effect: $Z = 0$ . | 22 (P = 0.83) |                                |    |                                  |          |                       |             |                       |
|                                    |               |                                |    |                                  | -1       | -0.5 0                | 0.5 1       |                       |

BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT Comparison:

Outcome: 17 Change in TG mmol/l at 24 months

| Study<br>or sub-category  | A o | ctive diet and BT<br>Mean (SD) | N        | Passive diet and BT<br>Mean (SD) |             |      | (fixed)<br>% CI          | Weight<br>%      | WMD (fixed)<br>95% CI                      |
|---|-----|--------------------------------|----------|----------------------------------|-------------|------|--------------------------|------------------|--|
| 01 VLCD Wing 1998 Subtotal (95% CI) Test for heterogeneity: not applicab Test for overall effect: Z = 0.72 (P = |     | 0.19(2.42)                     | 31<br>31 | 0.52(1.14)                       | <u> </u>    | -    |                          | 100.00<br>100.00 | -0.33 [-1.23, 0.57]<br>-0.33 [-1.23, 0.57] |
| Total (95% CI) Test for heterogeneity: not applicab Test for overall effect: Z = 0.72 (P =                      |     |                                | 31       |                                  |             |      |                          | 100.00           | -0.33 [-1.23, 0.57]                        |
|   |     |                                |          |                                  | -1<br>Favou | -0.5 | 0 0.5<br>Favours control | 1                |  |

BEHAVIOUR THERAPY Analyses for adults Review:

Comparison: Outcome: 03 Active diet and BT vs passive (information only) diet and BT 18 Change in FPG mmol/l at 6 months

| Study or sub-category   | N  | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight %    | WMD (fixed)<br>95% CI |
|---|----|---------------------------------|----|----------------------------------|-------|-----------------------|-------------|-----------------------|
| 01 VLCD   |    |                                 |    |                                  |       |                       |             |                       |
| Wing 1998   | 35 | -0.20(0.40)                     | 32 | 0.10(0.50)                       |       | <del></del> -         | 100.00      | -0.30 [-0.52, -0.08]  |
| Subtotal (95% CI)   | 35 |                                 | 32 |                                  |       |                       | 100.00      | -0.30 [-0.52, -0.08]  |
| Test for heterogeneity: not a Test for overall effect: Z = 2                |    |                                 |    |                                  |       |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2 |    |                                 | 32 |                                  |       |                       | 100.00      | -0.30 [-0.52, -0.08]  |
|   |    |                                 |    |                                  | -1    | -0.5 0                | 0.5 1       |                       |
|   |    |                                 |    |                                  | Favou | rs treatment Favo     | urs control |                       |

BEHAVIOUR THERAPY Analyses for adults

Comparison: 03 Active diet and BT vs passive (information only) diet and BT

Outcome: 19 Change in FPG mmol/l at 12 months

| Study or sub-category          | N A             | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) | WMD (fixed<br>95% CI | ) Weight % | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|---------------------------------|----|----------------------------------|----------------------|------------|-----------------------|
| 01 VLCD                        |                 |                                 |    |                                  |                      |            |                       |
| Wing 1998                      | 33              | 0.20(0.80)                      | 29 | 0.00(0.60)                       |                      | 100.00     | 0.20 [-0.15, 0.55]    |
| Subtotal (95% CI)              | 33              |                                 | 29 |                                  |                      | 100.00     | 0.20 [-0.15, 0.55]    |
| Test for heterogeneity: not    | applicable      |                                 |    |                                  |                      |            |                       |
| Test for overall effect: Z = 1 | 1.12 (P = 0.26) |                                 |    |                                  |                      |            |                       |
| Total (95% CI)                 | 33              |                                 | 29 |                                  |                      | 100.00     | 0.20 [-0.15, 0.55]    |
| Test for heterogeneity: not    | applicable      |                                 |    |                                  | _                    |            |                       |
| Test for overall effect: Z = 1 | 1.12 (P = 0.26) |                                 |    |                                  |                      |            |                       |
|                                |                 |                                 |    |                                  | -0.5 0               | 0.5 1      |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT 20 Change in FPG mmol/l at 24 months Comparison:

Outcome:

1

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3

4

| Study or sub-category             | N A        | ctive diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|--------------------------------|----|----------------------------------|--------|-----------------------|-------------|-----------------------|
| 01 VLCD                           |            |                                |    |                                  |        |                       |             |                       |
| Wing 1998                         | 35         | 0.30(1.00)                     | 31 | 0.20(0.40)                       |        | <del></del>           | 100.00      | 0.10 [-0.26, 0.46]    |
| Subtotal (95% CI)                 | 35         |                                | 31 |                                  |        |                       | 100.00      | 0.10 [-0.26, 0.46]    |
| Test for heterogeneity: not appli | cable      |                                |    |                                  |        |                       |             |                       |
| Test for overall effect: Z = 0.54 | (P = 0.59) |                                |    |                                  |        |                       |             |                       |
| Total (95% CI)                    | 35         |                                | 31 |                                  |        |                       | 100.00      | 0.10 [-0.26, 0.46]    |
| Test for heterogeneity: not appli | cable      |                                |    |                                  |        |                       |             |                       |
| Test for overall effect: Z = 0.54 |            |                                |    |                                  |        |                       |             |                       |
|                                   |            |                                |    |                                  | -1 -0. | 5 0 0.5               | 1           |                       |

Review:

BEHAVIOUR THERAPY Analyses for adults 03 Active diet and BT vs passive (information only) diet and BT Comparison:

Outcome: 21 Change in %HbA1c at 6 months

| Study or sub-category  | N  | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|---------------------------------|----|----------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |    |                                 |    |                                  |                       |             |                       |
| Wing 1998  | 35 | 0.10(0.50)                      | 32 | 0.20(0.40)                       | <del></del>           | 100.00      | -0.10 [-0.32, 0.12]   |
| Subtotal (95% CI)  | 35 |                                 | 32 |                                  |                       | 100.00      | -0.10 [-0.32, 0.12]   |
| Test for heterogeneity: not applicable Test for overall effect: Z = 0.91 (P =                |    |                                 |    |                                  |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.91 (P = |    |                                 | 32 |                                  |                       | 100.00      | -0.10 [-0.32, 0.12]   |
|  |    |                                 |    |                                  | 1 -05 0 05            | 1           |                       |

BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT Comparison:

Outcome: 22 Change in %HbA1c at 24 months

| Study or sub-category   | N A | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |      | ١          | VMD (fixed)<br>95% CI |           | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|---------------------------------|----|----------------------------------|------|------------|-----------------------|-----------|-------------|-----------------------|
| 01 VLCD   |     |                                 |    |                                  |      |            |                       |           |             |                       |
| Wing 1998   | 35  | -0.10(0.50)                     | 31 | -0.10(0.30)                      |      |            | -                     |           | 100.00      | 0.00 [-0.20, 0.20]    |
| Subtotal (95% CI)   | 35  |                                 | 31 |                                  |      |            |                       |           | 100.00      | 0.00 [-0.20, 0.20]    |
| Test for heterogeneity: not applicabl<br>Test for overall effect: Z = 0.00 (P =             |     |                                 |    |                                  |      |            |                       |           |             |                       |
| Total (95% CI) Test for heterogeneity: not applicabl Test for overall effect: Z = 0.00 (P = |     |                                 | 31 |                                  |      |            | <b>+</b>              |           | 100.00      | 0.00 [-0.20, 0.20]    |
|   |     |                                 |    |                                  | -1   | -0.5       | Ö                     | 0.5       | 1           |                       |
|   |     |                                 |    |                                  | Favo | urs treatn | nent Favour           | s control |             |                       |

BEHAVIOUR THERAPY Analyses for adults Review:

Comparison: Outcome: 03 Active diet and BT vs passive (information only) diet and BT 23 Change in SBP mmHg at 6 months

| Study or sub-category   | N  | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |             | WMD (fixe<br>95% CI | d) V          | Veight<br>% | WMD (fixed)<br>95% CI |
|---|----|---------------------------------|----|----------------------------------|-------------|---------------------|---------------|-------------|-----------------------|
| 01 VLCD   |    |                                 |    |                                  |             |                     |               |             |                       |
| Wing 1998   | 35 | -10.20(9.20)                    | 32 | -2.00(10.50)                     | <del></del> |                     | 1             | 00.00       | -8.20 [-12.95, -3.45] |
| Subtotal (95% CI)   | 35 |                                 | 32 |                                  |             |                     | 1             | 00.00       | -8.20 [-12.95, -3.45] |
| Test for heterogeneity: not a Test for overall effect: Z = 3                |    | )                               |    |                                  |             |                     |               |             |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 3 |    | )                               | 32 |                                  |             |                     | 1             | 00.00       | -8.20 [-12.95, -3.45] |
| -   |    |                                 |    |                                  | -10         | -5 0                | 5 10          |             |                       |
|   |    |                                 |    |                                  | Favou       | rs treatment Fa     | vours control |             |                       |

BEHAVIOUR THERAPY Analyses for adults
03 Active diet and BT vs passive (information only) diet and BT Comparison:

Outcome: 24 Change in SBP mmHg at 12 months

| Study or sub-category           | N              | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---------------------------------|----------------|---------------------------------|----|----------------------------------|-------|-----------------------|-------------|-----------------------|
| 02 VLCD                         |                |                                 |    |                                  |       |                       |             |                       |
| Wing 1998                       | 33             | 1.30(8.30)                      | 29 | 1.10(9.60)                       |       |                       | 100.00      | 0.20 [-4.30, 4.70]    |
| Subtotal (95% CI)               | 33             |                                 | 29 |                                  |       |                       | 100.00      | 0.20 [-4.30, 4.70]    |
| Test for heterogeneity: not a   | applicable     |                                 |    |                                  |       | T                     |             |                       |
| Test for overall effect: Z = 0  | .09 (P = 0.93) |                                 |    |                                  |       |                       |             |                       |
| Total (95% CI)                  | 33             |                                 | 29 |                                  |       |                       | 100.00      | 0.20 [-4.30, 4.70]    |
| Test for heterogeneity: not a   | applicable     |                                 |    |                                  |       | T                     |             |                       |
| Test for overall effect: Z = 0. | .09 (P = 0.93) |                                 |    |                                  |       |                       |             |                       |
|                                 |                |                                 |    | -                                | 10 -5 | 5 0                   | 5 10        |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT 25 Change in SBP mmHg at 24 months Comparison:

Outcome:

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Review:

| Study or sub-category           | N             | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |     | WMD (fi:<br>95% ( |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---------------------------------|---------------|---------------------------------|----|----------------------------------|-----|-------------------|---|-------------|-----------------------|
| 01 VLCD                         |               |                                 |    |                                  |     |                   |   |             |                       |
| Wing 1998                       | 35            | -0.80(9.40)                     | 31 | -1.50(12.00)                     |     |                   |   | 100.00      | 0.70 [-4.55, 5.95]    |
| Subtotal (95% CI)               | 35            |                                 | 31 |                                  |     |                   |   | 100.00      | 0.70 [-4.55, 5.95]    |
| Test for heterogeneity: not a   | pplicable     |                                 |    |                                  |     |                   |   |             |                       |
| Test for overall effect: Z = 0. | 26 (P = 0.79) |                                 |    |                                  |     |                   |   |             |                       |
| Total (95% CI)                  | 35            |                                 | 31 |                                  |     |                   |   | 100.00      | 0.70 [-4.55, 5.95]    |
| Test for heterogeneity: not a   | pplicable     |                                 |    |                                  |     |                   |   |             |                       |
| Test for overall effect: Z = 0. | 26 (P = 0.79) |                                 |    |                                  |     |                   |   |             |                       |
|                                 |               |                                 |    |                                  | -10 | -5 0              | 5 | 10          |                       |

Review:

BEHAVIOUR THERAPY Analyses for adults 03 Active diet and BT vs passive (information only) diet and BT Comparison:

Outcome: 26 Change in DBP mmHg at 6 months

| Study or sub-category             | N            | Active diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |     | WMD (fixe<br>95% CI | ,    | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|--------------|---------------------------------|----|----------------------------------|-----|---------------------|------|-------------|-----------------------|
| 01 VLCD                           |              |                                 |    |                                  |     |                     |      |             |                       |
| Wing 1998                         | 35           | -6.20(6.90)                     | 32 | -2.20(8.00)                      |     | _                   |      | 100.00      | -4.00 [-7.59, -0.41]  |
| Subtotal (95% CI)                 | 35           |                                 | 32 |                                  | -   |                     |      | 100.00      | -4.00 [-7.59, -0.41]  |
| Test for heterogeneity: not app   | olicable     |                                 |    |                                  |     |                     |      |             |                       |
| Test for overall effect: Z = 2.18 | 8 (P = 0.03) |                                 |    |                                  |     |                     |      |             |                       |
| Total (95% CI)                    | 35           |                                 | 32 |                                  | -   |                     |      | 100.00      | -4.00 [-7.59, -0.41]  |
| Test for heterogeneity: not app   | olicable     |                                 |    |                                  |     |                     |      |             |                       |
| Test for overall effect: Z = 2.18 | 8 (P = 0.03) |                                 |    |                                  |     |                     |      |             |                       |
|                                   |              |                                 |    |                                  | -10 | -5 0                | 5 10 | )           |                       |

BEHAVIOUR THERAPY Analyses for adults

03 Active diet and BT vs passive (information only) diet and BT Comparison:

Outcome: 27 Change in DBP mmHg at 12 months

| Study<br>or sub-category  | N A | ctive diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|--------------------------------|----|----------------------------------|-----------------------|-------------|-----------------------|
| 11 VLCD   |     |                                |    |                                  |                       |             |                       |
| Wing 1998   | 33  | 3.40(8.10)                     | 29 | 4.90(8.20)                       |                       | 100.00      | -1.50 [-5.57, 2.57]   |
| Subtotal (95% CI)   | 33  |                                | 29 |                                  |                       | 100.00      | -1.50 [-5.57, 2.57]   |
| est for heterogeneity: not a<br>est for overall effect: Z = 0.              |     |                                |    |                                  |                       |             |                       |
| otal (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0. |     |                                | 29 |                                  |                       | 100.00      | -1.50 [-5.57, 2.57]   |

BEHAVIOUR THERAPY Analyses for adults Review:

03 Active diet and BT vs passive (information only) diet and BT 28 Change in DBP mmHg at 24 months

Comparison: Outcome:

| Study or sub-category   | N A | ctive diet and BT<br>Mean (SD) | N  | Passive diet and BT<br>Mean (SD) |       |               | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|--------------------------------|----|----------------------------------|-------|---------------|-----------------|-------------|-----------------------|
| 01 VLCD   |     |                                |    |                                  |       |               |                 |             |                       |
| Wing 1998   | 35  | 3.00(7.80)                     | 31 | 2.00(8.00)                       |       |               | <del>-</del>    | 100.00      | 1.00 [-2.82, 4.82]    |
| Subtotal (95% CI)   | 35  |                                | 31 |                                  |       | -             |                 | 100.00      | 1.00 [-2.82, 4.82]    |
| Test for heterogeneity: not<br>Test for overall effect: Z = 0             |     |                                |    |                                  |       |               |                 |             |                       |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |     |                                | 31 |                                  |       |               |                 | 100.00      | 1.00 [-2.82, 4.82]    |
|   |     |                                |    |                                  | -10   | -5            | 0 5             | 10          |                       |
|   |     |                                |    |                                  | Favou | ırs treatment | Favours conf    | trol        |                       |

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 04 Family vs individual

Outcome: 01 Weight change in kg at 10 weeks

| Study<br>or sub-category  | N               | Family<br>Mean (SD)            | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>%   | WMD (fixed)<br>95% CI |
|---|-----------------|--------------------------------|----|-------------------------|-----------------------|---------------|-----------------------|
| 01 LCD, BT, and PA  |                 |                                |    |                         |                       |               |                       |
| Murphy 1982 a   | 5               | -8.16(8.23)                    | 8  | -7.08(7.92)             |                       | 4.06          | -1.08 [-10.14, 7.98]  |
| Murphy 1982 b   | 8               | -7.62(8.07)                    | 7  | -6.85(7.85)             |                       | <b>-</b> 5.12 | -0.77 [-8.84, 7.30]   |
| Subtotal (95% CI)   | 13              |                                | 15 |                         |                       | 9.18          | -0.91 [-6.93, 5.12]   |
| Test for heterogeneity: Chi <sup>2</sup> =<br>Test for overall effect: Z = 0.29 |                 | P = 0.96), I <sup>2</sup> = 0% |    |                         |                       |               |                       |
| 02 LCD, BT, and PA if no weig   | ght loss        |                                |    |                         |                       |               |                       |
| Pearce 1981   | 14              | -6.50(2.91)                    | 13 | -4.32(2.45)             | <del></del>           | 81.34         | -2.18 [-4.20, -0.16]  |
| Subtotal (95% CI)   | 14              |                                | 13 |                         |                       | 81.34         | -2.18 [-4.20, -0.16]  |
| Test for heterogeneity: not ap  | olicable        |                                |    |                         |                       |               |                       |
| Test for overall effect: Z = 2.1  | 1 (P = 0.03)    |                                |    |                         |                       |               |                       |
| 03 Behavioural contracts  |                 |                                |    |                         |                       |               |                       |
| Black 1984  | 11              | -4.61(7.22)                    | 11 | -3.71(6.96)             |                       | 9.49          | -0.90 [-6.83, 5.03]   |
| Subtotal (95% CI)   | 11              |                                | 11 |                         |                       | 9.49          | -0.90 [-6.83, 5.03]   |
| Test for heterogeneity: not ap  | olicable        |                                |    |                         |                       |               |                       |
| Test for overall effect: Z = 0.3  |                 |                                |    |                         |                       |               |                       |
| Total (95% CI)  | 38              |                                | 39 |                         |                       | 100.00        | -1.94 [-3.77, -0.12]  |
| Test for heterogeneity: Chi <sup>2</sup> =                                      | 0.29, df = 3 (I | P = 0.96), I <sup>2</sup> = 0% |    |                         | -                     |               |                       |
| Test for overall effect: Z = 2.0  |                 | •                              |    |                         |                       |               |                       |

BEHAVIOUR THERAPY Analyses for adults

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Comparison: Outcome: 04 Family vs individual 02 Weight change in kg at 12 weeks (3 months)

| Study or sub-category   | N          | Family<br>Mean (SD) | N  | Individual<br>Mean (SD) |        | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------------|---------------------|----|-------------------------|--------|----------------------|-------------|-----------------------|
| 01 LCD, BT, and PA  |            |                     |    |                         |        |                      |             |                       |
| Cousins 1992  | 27         | -3.00(6.76)         | 32 | -2.60(6.65)             |        | <del>-</del>         | 100.00      | -0.40 [-3.84, 3.04]   |
| Subtotal (95% CI)   | 27         |                     | 32 |                         | -      |                      | 100.00      | -0.40 [-3.84, 3.04]   |
| Test for heterogeneity: not appl                                      | icable     |                     |    |                         |        | 1                    |             |                       |
| Test for overall effect: Z = 0.23                                     | (P = 0.82) |                     |    |                         |        |                      |             |                       |
| Total (95% CI)  | 27         |                     | 32 |                         | •      |                      | 100.00      | -0.40 [-3.84, 3.04]   |
| Test for heterogeneity: not appl<br>Test for overall effect: Z = 0.23 |            |                     |    |                         |        |                      |             |                       |
|   |            |                     |    |                         | -10 -5 | 0 5                  | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

BEHAVIOUR THERAPY Analyses for adults Review:

Comparison:

04 Family vs individual 03 Weight change in kg at 15 weeks Outcome:

| Study or sub-category                                       | N                          | Family<br>Mean (SD)            | N  | Individual<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----------------------------|--------------------------------|----|-------------------------|-----|-----------------------|-------------|-----------------------|
| 01 LCD, BT, and PA  |                            |                                |    |                         |     |                       |             |                       |
| Murphy 1982 a   | 5                          | -9.43(8.59)                    | 7  | -7.98(8.17)             | ←   |                       | 44.02       | -1.45 [-11.11, 8.21]  |
| Murphy 1982 b   | 8                          | -9.66(8.65)                    | 7  | -8.30(8.26)             | -   |                       | 55.98       | -1.36 [-9.93, 7.21]   |
| Subtotal (95% CI)   | 13                         |                                | 14 |                         | _   |                       | 100.00      | -1.40 [-7.81, 5.01]   |
| Test for heterogeneity: Chi                                 | $i^2 = 0.00$ , $df = 1$ (F | P = 0.99), I <sup>2</sup> = 0% |    |                         |     |                       |             |                       |
| Test for overall effect: Z =                                | 0.43 (P = 0.67)            | •                              |    |                         |     |                       |             |                       |
| Total (95% CI)  | 13                         |                                | 14 |                         | _   |                       | 100.00      | -1.40 [-7.81, 5.01]   |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = |                            | P = 0.99), I <sup>2</sup> = 0% |    |                         |     |                       |             |                       |
|   |                            |                                |    |                         | -10 | -5 0 5                | 10          |                       |

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: Outcome:

04 Family vs individual 04 Weight change in kg at 16 weeks (4 months)

| Study<br>or sub-category N                |      | Family<br>Mean (SD) | N  | Individual<br>Mean (SD) |     |    | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------|---------------------|----|-------------------------|-----|----|--------------------|-------------|-----------------------|
| 01 LCD, BT, and PA                        |      |                     |    |                         |     |    |                    |             |                       |
| Wing 1999                                 | 80   | -8.80(8.41)         | 86 | -6.70(7.81)             |     | _  | +                  | 100.00      | -2.10 [-4.57, 0.37]   |
| Subtotal (95% CI)                         | 80   |                     | 86 |                         |     |    | →                  | 100.00      | -2.10 [-4.57, 0.37]   |
| Test for heterogeneity: not applicable    |      |                     |    |                         |     | _  |                    |             |                       |
| Test for overall effect: Z = 1.66 (P = 0. | .10) |                     |    |                         |     |    |                    |             |                       |
| otal (95% CI)                             | 80   |                     | 86 |                         |     |    | -                  | 100.00      | -2.10 [-4.57, 0.37]   |
| est for heterogeneity: not applicable     |      |                     |    |                         |     | _  |                    |             |                       |
| Test for overall effect: Z = 1.66 (P = 0. | .10) |                     |    |                         |     |    |                    |             |                       |
|   |      |                     |    |                         | -10 | -5 | 0 5                | 10          |                       |
|   |      |                     |    |                         | F   |    | Favoura aa         | -41         |                       |

Review: Comparison: Outcome: BEHAVIOUR THERAPY Analyses for adults 04 Family vs individual 05 Weight change in kg at 20 weeks

| Study or sub-category             | N          | Family<br>Mean (SD) | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|---------------------|----|-------------------------|-----------------------|-------------|-----------------------|
| 01 LCD, BT, and PA                |            |                     |    |                         |                       |             |                       |
| Wing 1991 b                       | 20         | -8.66(5.08)         | 23 | -9.03(8.26)             |                       | 100.00      | 0.37 [-3.67, 4.41]    |
| Subtotal (95% CI)                 | 20         |                     | 23 |                         |                       | 100.00      | 0.37 [-3.67, 4.41]    |
| Test for heterogeneity: not app   | licable    |                     |    |                         |                       |             |                       |
| Test for overall effect: Z = 0.18 | (P = 0.86) |                     |    |                         |                       |             |                       |
| Total (95% CI)                    | 20         |                     | 23 |                         |                       | 100.00      | 0.37 [-3.67, 4.41]    |
| Test for heterogeneity: not app   | licable    |                     |    |                         |                       |             |                       |
| Test for overall effect: Z = 0.18 | (P = 0.86) |                     |    |                         |                       |             |                       |
|                                   |            |                     |    |                         | -10 -5 0              | 5 10        |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

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Comparison: Outcome: 04 Family vs individual 06 Weight change in kg at 22 weeks

| Study or sub-category   | N                    | Family<br>Mean (SD)     | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----------------------|-------------------------|----|-------------------------|-----------------------|-------------|-----------------------|
| 01 LCD, BT, and PA  |                      |                         |    |                         |                       |             |                       |
| Murphy 1982 a   | 5                    | -10.34(8.84)            | 6  | -9.39(8.57)             | •                     | 9.52        | -0.95 [-11.30, 9.40]  |
| Murphy 1982 b   | 8                    | -10.89(9.00)            | 7  | -9.25(8.53)             | •                     | 12.93       | -1.64 [-10.52, 7.24]  |
| Subtotal (95% CI)   | 13                   |                         | 13 |                         |                       | 22.45       | -1.35 [-8.09, 5.39]   |
| Test for heterogeneity: Chiral Test for overall effect: Z = 0 |                      | $(P = 0.92), I^2 = 0\%$ |    |                         |                       |             |                       |
| 02 LCD, BT, and PA if no v                                    | veight loss          |                         |    |                         |                       |             |                       |
| Pearce 1981   | 12                   | -8.18(4.74)             | 12 | -4.55(4.31)             | <del></del>           | 77.55       | -3.63 [-7.25, -0.01]  |
| Subtotal (95% CI)   | 12                   |                         | 12 |                         |                       | 77.55       | -3.63 [-7.25, -0.01]  |
| Test for heterogeneity: not<br>Test for overall effect: Z = 1 |                      |                         |    |                         |                       |             |                       |
| Total (95% CI)  | 25                   |                         | 25 |                         |                       | 100.00      | -3.12 [-6.31, 0.07]   |
| Test for heterogeneity: Chi2                                  | $^2 = 0.35$ , df = 2 | $(P = 0.84), I^2 = 0\%$ |    |                         |                       |             |                       |
| Test for overall effect: Z = 1                                | I.91 (P = 0.06)      |                         |    |                         |                       |             |                       |
|   |                      |                         |    |                         | -10 -5 0 5            | 10          |                       |

BEHAVIOUR THERAPY Analyses for adults 04 Family vs individual Review: Comparison:

Outcome: 07 Weight change in kg at 26 weeks (6 months)

| Study or sub-category                      | N                | Family<br>Mean (SD) | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------------|---------------------|----|-------------------------|-----------------------|-------------|-----------------------|
| 01 LCD, BT, and PA                         |                  |                     |    |                         |                       |             |                       |
| Cousins 1992                               | 27               | -4.50(7.19)         | 32 | -3.30(6.85)             | <del></del>           | 100.00      | -1.20 [-4.80, 2.40]   |
| Subtotal (95% CI)                          | 27               |                     | 32 |                         |                       | 100.00      | -1.20 [-4.80, 2.40]   |
| Test for heterogeneity: not                | applicable       |                     |    |                         |                       |             |                       |
| Test for overall effect: Z = 0             | 0.65 (P = 0.51)  |                     |    |                         |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not | 27<br>applicable |                     | 32 |                         |                       | 100.00      | -1.20 [-4.80, 2.40]   |
| Test for overall effect: Z = 0             |                  |                     |    |                         |                       |             |                       |
|  |                  |                     |    |                         | -10 -5 0 5            | 10          |                       |

BEHAVIOUR THERAPY Analyses for adults

04 Family vs individual Comparison:

| Study<br>or sub-category                 | N                  | Family<br>Mean (SD)               | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI        | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------------|-----------------------------------|----|-------------------------|------------------------------|-------------|-----------------------|
| 01 LCD, BT, and PA                       |                    |                                   |    |                         |                              |             |                       |
| Murphy 1982 a                            | 5                  | -6.89(7.87)                       | 6  | -9.53(8.61)             |                              | 11.60       | 2.64 [-7.11, 12.39]   |
| Murphy 1982 b                            | 7                  | -8.21(8.24)                       | 5  | -9.53(8.61)             |                              | 11.70       | 1.32 [-8.39, 11.03]   |
| Subtotal (95% CI)                        | 12                 |                                   | 11 |                         |                              | 23.30       | 1.98 [-4.90, 8.86]    |
| Test for heterogeneity: Chi <sup>2</sup> | = 0.04, df $= 1$ ( | P = 0.85), I <sup>2</sup> = 0%    |    |                         |                              |             |                       |
| Test for overall effect: Z = 0           | .56 (P = 0.57)     |                                   |    |                         |                              |             |                       |
| 02 LCD, BT, and PA if no w               | eight loss         |                                   |    |                         |                              |             |                       |
| Pearce 1981                              | 12                 | -7.47(5.08)                       | 12 | -3.42(4.37)             | <del></del>                  | 76.70       | -4.05 [-7.84, -0.26]  |
| Subtotal (95% CI)                        | 12                 |                                   | 12 |                         |                              | 76.70       | -4.05 [-7.84, -0.26]  |
| Test for heterogeneity: not a            | applicable         |                                   |    |                         |                              |             |                       |
| Test for overall effect: $Z = 2$         | .09 (P = 0.04)     |                                   |    |                         |                              |             |                       |
| Total (95% CI)                           | 24                 |                                   | 23 |                         |                              | 100.00      | -2.65 [-5.97, 0.67]   |
| Test for heterogeneity: Chi <sup>2</sup> | = 2.30, df = 2 (   | P = 0.32), I <sup>2</sup> = 12.9% |    |                         |                              |             |                       |
| Test for overall effect: Z = 1           | .56 (P = 0.12)     |                                   |    |                         |                              |             |                       |
|  |                    |                                   |    |                         | -10 -5 0 5                   | 10          |                       |
|  |                    |                                   |    |                         | Favours treatment Favours co |             |                       |

Review: BEHAVIOUR THERAPY Analyses for adults 04 Family vs individual Comparison:

09 Weight change in kg at 40 weeks (10 months) Outcome:

| Study or sub-category   | Family Individual<br>tegory N Mean (SD) N Mean (SD) |             | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |                      |
|---|---|-------------|-------------------------|-----------------------|-------------|-----------------------|----------------------|
| 01 LCD, BT, and PA  |   |             |                         |                       |             |                       |                      |
| Wing 1999   | 80  | -7.70(8.09) | 86                      | -4.30(7.13)           | <del></del> | 100.00                | -3.40 [-5.73, -1.07] |
| Subtotal (95% CI)   | 80  |             | 86                      |                       |             | 100.00                | -3.40 [-5.73, -1.07] |
| Test for heterogeneity: not a                                 | applicable  |             |                         |                       |             |                       |                      |
| Test for overall effect: Z = 2                                | .86 (P = 0.004)                                     |             |                         |                       |             |                       |                      |
| Total (95% CI)  | 80  |             | 86                      |                       |             | 100.00                | -3.40 [-5.73, -1.07] |
| Test for heterogeneity: not a Test for overall effect: Z = 2. |   |             |                         |                       |             |                       |                      |
|   |   |             |                         |                       | -10 -5 0 5  | 10                    |                      |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 04 Family vs individual

1

2

3

10 Weight change in kg at 52 weeks (12 months) Outcome:

| Study<br>or sub-category                   | N                | Family<br>Mean (SD)            | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>%    | WMD (fixed)<br>95% CI |
|--|------------------|--------------------------------|----|-------------------------|-----------------------|----------------|-----------------------|
| 01 LCD, BT, and PA                         |                  |                                |    |                         |                       |                |                       |
| Cousins 1992                               | 27               | -3.80(6.99)                    | 32 | -2.10(6.51)             | <del></del>           | 46.20          | -1.70 [-5.17, 1.77]   |
| Murphy 1982 a                              | 4                | -5.44(7.46)                    | 4  | -3.18(6.81)             | •                     | _ 5.68         | -2.26 [-12.16, 7.64]  |
| Murphy 1982 b                              | 8                | -8.75(8.39)                    | 6  | -3.49(6.90)             | <del>-</del>          | 8.65           | -5.26 [-13.28, 2.76]  |
| Subtotal (95% CI)                          | 39               |                                | 42 |                         |                       | 60.53          | -2.26 [-5.29, 0.77]   |
| est for heterogeneity: Chi2 =              | 0.64, df = 2 (F  | $P = 0.73$ ), $I^2 = 0\%$      |    |                         |                       |                |                       |
| Test for overall effect: Z = 1.4           | 6 (P = 0.14)     |                                |    |                         |                       |                |                       |
| 02 LCD, BT, and PA if no wei               | ght loss         |                                |    |                         |                       |                |                       |
| Pearce 1981                                | 12               | -8.25(5.38)                    | 12 | -2.16(5.97)             | <del></del>           | 26.90          | -6.09 [-10.64, -1.54] |
| Subtotal (95% CI)                          | 12               |                                | 12 |                         |                       | 26.90          | -6.09 [-10.64, -1.54] |
| Test for heterogeneity: not ap             | plicable         |                                |    |                         |                       |                |                       |
| Test for overall effect: Z = 2.6           | 3 (P = 0.009)    |                                |    |                         |                       |                |                       |
| 03 Behavioural contracts                   |                  |                                |    |                         |                       |                |                       |
| Black 1984                                 | 11               | -7.04(7.91)                    | 11 | -7.42(8.01)             |                       | <b>-</b> 12.57 | 0.38 [-6.27, 7.03]    |
| Subtotal (95% CI)                          | 11               |                                | 11 |                         |                       | - 12.57        | 0.38 [-6.27, 7.03]    |
| est for heterogeneity: not ap              | plicable         |                                |    |                         |                       |                |                       |
| est for overall effect: Z = 0.1            | 1 (P = 0.91)     |                                |    |                         |                       |                |                       |
| Γotal (95% CI)                             | 62               |                                | 65 |                         |                       | 100.00         | -2.96 [-5.32, -0.60]  |
| Test for heterogeneity: Chi <sup>2</sup> = | 3.63, df = 4 (F) | P = 0.46), I <sup>2</sup> = 0% |    |                         | _                     |                |                       |
| est for overall effect: Z = 2.4            | 6 (P = 0.01)     | •                              |    |                         |                       |                |                       |
|  |                  |                                |    |                         | -10 -5 0 5            | 10             |                       |

Review: BEHAVIOUR THERAPY Analyses for adults Comparison: Outcome: 04 Family vs individual
11 Weight change in kg at 18 months

| Study or sub-category                                      | N   | Family<br>Mean (SD)               | N   | Individual<br>Mean (SD) |     |    | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|-----------------------------------|-----|-------------------------|-----|----|-----------------|-------------|-----------------------|
| 01 LCD, BT, and PA   |     |                                   |     |                         |     |    |                 |             |                       |
| Wing 1991 b  | 20  | -3.18(5.31)                       | 23  | -5.26(10.39)            |     |    | -               | 16.30       | 2.08 [-2.76, 6.92]    |
| Wing 1999  | 80  | -4.70(7.25)                       | 86  | -3.00(6.76)             |     | _  | +               | 83.70       | -1.70 [-3.84, 0.44]   |
| Subtotal (95% CI)  | 100 |                                   | 109 |                         |     |    | <b>-</b>        | 100.00      | -1.08 [-3.04, 0.87]   |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |     | P = 0.16), I <sup>2</sup> = 49.0% |     |                         |     |    |                 |             |                       |
| Total (95% CI)   | 100 |                                   | 109 |                         |     | •  | <b>-</b>        | 100.00      | -1.08 [-3.04, 0.87]   |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |     | P = 0.16), I <sup>2</sup> = 49.0% |     |                         |     |    |                 |             |                       |
|  |     |                                   |     |                         | -10 | -5 | 0 5             | 10          |                       |

BEHAVIOUR THERAPY Analyses for adults 04 Family vs individual Review:

Comparison: 12 Weight change in kg at 24 months

Individual WMD (fixed) Weight WMD (fixed) Study Family or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 LCD, BT, and PA -0.77 [-8.54, 7.00] -9.75 [-17.14, -2.36] -5.49 [-10.84, -0.14] Murphy 1982 a Murphy 1982 b -3.36(6.86) -2.59(6.65) 47.44 -7.21(7.96) 2.54(6.63) Subtotal (95% CI) 13Test for heterogeneity: Chi² = 2.69, df = 1 (P = 0.10),  $I^2$  = 62.9% 14 100.00 Test for overall effect: Z = 2.01 (P = 0.04) 14 100.00 -5.49 [-10.84, -0.14] Test for heterogeneity: Chi² = 2.69, df = 1 (P = 0.10),  $I^2$  = 62.9% Test for overall effect: Z = 2.01 (P = 0.04)

-10 ò Favours treatment Favours control

Review: Comparison: Outcome: BEHAVIOUR THERAPY Analyses for adults 04 Family vs individual 13 Weight change in kg at 43 months

| Study or sub-category   | N               | Family<br>Mean (SD) | N | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|---|-----------------|---------------------|---|-------------------------|-----------------------|----------|-----------------------|
| 01 Weight loss programme  | and BT          |                     |   |                         |                       |          |                       |
| Rosenthal 1980  | 11              | -4.37(7.15)         | 9 | -3.62(6.94)             |                       | 100.00   | -0.75 [-6.95, 5.45]   |
| Subtotal (95% CI)   | 11              |                     | 9 |                         |                       | 100.00   | -0.75 [-6.95, 5.45]   |
| Test for heterogeneity: not a   | applicable      |                     |   |                         |                       |          |                       |
| Test for overall effect: $Z = 0$  | 0.24 (P = 0.81) |                     |   |                         |                       |          |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0 |                 |                     | 9 |                         |                       | 100.00   | -0.75 [-6.95, 5.45]   |
| -   |                 |                     |   |                         | -10 -5 0 5            | 10       |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: Outcome:

1

2

04 Family vs individual
14 Weight change in kg at 48 months

| Study<br>or sub-category   | N                        | Family<br>Mean (SD)               | N | Individual<br>Mean (SD) |             | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------------------|-----------------------------------|---|-------------------------|-------------|-----------------------|-------------|-----------------------|
| 01 LCD, BT, and PA   |                          |                                   |   |                         |             |                       |             |                       |
| Murphy 1982 a  | 5                        | 0.73(6.12)                        | 4 | -4.20(7.10)             |             | <del></del>           | 51.91       | 4.93 [-3.86, 13.72]   |
| Murphy 1982 b  | 6                        | -2.87(6.73)                       | 4 | 5.67(7.52)              | <del></del> | <u>_</u>              | 48.09       | -8.54 [-17.67, 0.59]  |
| Subtotal (95% CI)  | 11                       |                                   | 8 |                         | _           |                       | 100.00      | -1.55 [-7.88, 4.78]   |
| Test for heterogeneity: Chi <sup>2</sup><br>Test for overall effect: Z = 0 |                          | P = 0.04), I <sup>2</sup> = 77.0% |   |                         |             |                       |             |                       |
| Total (95% CI)   | 11                       |                                   | 8 |                         | _           |                       | 100.00      | -1.55 [-7.88, 4.78]   |
| Test for heterogeneity: Chi <sup>2</sup>                                   | $^{2}$ = 4.34, df = 1 (F | P = 0.04), I <sup>2</sup> = 77.0% |   |                         |             |                       |             |                       |
| Test for overall effect: $Z = 0$   | 0.48 (P = 0.63)          |                                   |   |                         |             |                       |             |                       |
|  |                          |                                   |   |                         | -10         | -5 0 5                | 10          |                       |

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 04 Family vs individual

| Study<br>or sub-category     | N       | Family<br>Mean (SD) | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI                             | Weight<br>%        | WMD (fixed)<br>95% CI |
|------------------------------|---------|---------------------|----|-------------------------|---|--------------------|-----------------------|
| 01 LCD, BT, and PA Cousins   |         |                     |    |                         |   |                    |                       |
| Cousins 1992 12weeks         | 27      | -3.00(6.76)         | 32 | -2.60(6.65)             |   | 34.60              | -0.40 [-3.84, 3.04]   |
| Cousins 1992 26weeks         | 27      | -4.50(7.19)         | 32 | -3.30(6.85)             | <del></del>                                       | 31.46              | -1.20 [-4.80, 2.40]   |
| Cousins 1992 12month         | 27      | -3.80(6.99)         | 32 | -2.10(6.51)             | <del></del>                                       | 33.94              | -1.70 [-5.17, 1.77]   |
| 2 LCD, BT, and PA Murphy 1   | 991 a   |                     |    |                         |   |                    |                       |
| Murphy a 10 weeks            | 5       | -8.16(8.23)         | 8  | -7.08(7.92)             | <b>←</b>  | <del>-</del> 14.76 | -1.08 [-10.14, 7.98]  |
| Murphy a 15 weeks            | 5       | -9.43(8.59)         | 7  | -7.98(8.17)             | <del>-</del>                                      | 13.00              | -1.45 [-11.11, 8.21]  |
| Murphy a 22 weeks            | 5       | -10.34(8.84)        | 6  | -9.39(8.57)             | •   | 11.33              | -0.95 [-11.30, 9.40]  |
| Murphy a 36 weeks            | 5       | -6.89(7.87)         | 6  | -9.53(8.61)             |   | 12.76              | 2.64 [-7.11, 12.39]   |
| Murphy a 12 months           | 4       | -5.44(7.46)         | 4  | -3.18(6.81)             | <del>-</del>                                      | - 12.38            | -2.26 [-12.16, 7.64]  |
| Murphy a 24 months           | 5       | -3.36(6.86)         | 7  | -2.59(6.65)             |   | 20.07              | -0.77 [-8.54, 7.00]   |
| Murphy a 48 months           | 5       | 0.73(6.12)          | 4  | -4.20(7.10)             | -   | 15.71              | 4.93 [-3.86, 13.72]   |
| 3 LCD, BT, and PA Murphy 1   | 991 b   |                     |    |                         |   |                    |                       |
| Murphy b 10 weeks            | 8       | -7.62(8.07)         | 7  | -6.85(7.85)             |   | - 15.65            | -0.77 [-8.84, 7.30]   |
| Murphy b 15 weeks            | 8       | -9.66(8.65)         | 7  | -8.30(8.26)             | -   | - 13.88            | -1.36 [-9.93, 7.21]   |
| Murphy b 22 weeks            | 8       | -10.89(9.00)        | 7  | -9.25(8.53)             | •   | 12.92              | -1.64 [-10.52, 7.24]  |
| Murphy b 36 weeks            | 7       | -8.21(8.24)         | 5  | -9.53(8.61)             |   | 10.81              | 1.32 [-8.39, 11.03]   |
| Murphy b 12 months           | 8       | -8.75(8.39)         | 6  | -3.49(6.90)             | <b>—</b>  | 15.84              | -5.26 [-13.28, 2.76]  |
| Murphy b 24 months           | 8       | -7.21(7.96)         | 7  | 2.54(6.63)              | <del></del>                                       | 18.67              | -9.75 [-17.14, -2.36] |
| Murphy b 48 months           | 6       | -2.87(6.73)         | 4  | 5.67(7.52)              | <del>• • • • • • • • • • • • • • • • • • • </del> | 12.23              | -8.54 [-17.67, 0.59]  |
| 04 LCD, BT, and PA Wing 199  | 1 b     |                     |    |                         |   |                    |                       |
| Wing 1991 b 20 weeks         | 20      | -8.66(5.08)         | 23 | -9.03(8.26)             |   | 58.91              | 0.37 [-3.67, 4.41]    |
| Wing 1991 b 18months         | 20      | -3.18(5.31)         | 23 | -5.26(10.39)            | <del>- [ •</del>                                  | 41.09              | 2.08 [-2.76, 6.92]    |
| 5 LCD, BT, and PA Wing 199   | 9       |                     |    |                         |   |                    |                       |
| Wing 1999 16 weeks           | 80      | -8.80(8.41)         | 86 | -6.70(7.81)             | <del></del>                                       | 28.81              | -2.10 [-4.57, 0.37]   |
| Wing 1999 40 weeks           | 80      | -7.70(8.09)         | 86 | -4.30(7.13)             | <del></del>                                       | 32.57              | -3.40 [-5.73, -1.07]  |
| Wing 1999 18 months          | 80      | -4.70(7.25)         | 86 | -3.00(6.76)             | <del>-</del> +                                    | 38.62              | -1.70 [-3.84, 0.44]   |
| 6 LCD, BT, and PA if no weig | ht loss |                     |    |                         |   |                    |                       |
| Pearce 1981 10 weeks         | 14      | -6.50(2.91)         | 13 | -4.32(2.45)             | <del></del>                                       | 55.71              | -2.18 [-4.20, -0.16]  |
| Pearce 1981 22 weeks         | 12      | -8.18(4.74)         | 12 | -4.55(4.31)             |   | 17.37              | -3.63 [-7.25, -0.01]  |
| Pearce 1981 36 weeks         | 12      | -7.47(5.08)         | 12 | -3.42(4.37)             |   | 15.88              | -4.05 [-7.84, -0.26]  |
| Pearce 1981 12months         | 12      | -8.25(5.38)         | 12 | -2.16(5.97)             | <b>←</b>  | 11.04              | -6.09 [-10.64, -1.54] |
| 7 Behavioural contracts      |         |                     |    |                         |   |                    |                       |
| Black 1984 10 weeks          | 11      | -4.61(7.22)         | 11 | -3.71(6.96)             |   | 55.75              | -0.90 [-6.83, 5.03]   |
| Black 1984 12 months         | 11      | -7.04(7.91)         | 11 | -7.42(8.01)             |   | 44.25              | 0.38 [-6.27, 7.03]    |

BEHAVIOUR THERAPY Analyses for adults 04 Family vs individual 16 Change in FPG mmol/l at 20 weeks Comparison: Outcome:

| Study or sub-category  | N          | Family<br>Mean (SD) | N  | Individual<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------|---------------------|----|-------------------------|----|-----------------------|-------------|-----------------------|
| 01 LCD, BT, and PA   |            |                     |    |                         |    |                       |             |                       |
| Wing 1991 b  | 20         | -2.78(2.89)         | 23 | -3.56(4.61)             | ←  |                       | 100.00      | 0.78 [-1.49, 3.05]    |
| Subtotal (95% CI)  | 20         |                     | 23 |                         |    |                       | 100.00      | 0.78 [-1.49, 3.05]    |
| Test for heterogeneity: not app  | licable    |                     |    |                         |    |                       |             |                       |
| Test for overall effect: Z = 0.67  | (P = 0.50) |                     |    |                         |    |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not app Test for overall effect: Z = 0.67 |            |                     | 23 |                         |    |                       | 100.00      | 0.78 [-1.49, 3.05]    |
|  |            |                     |    |                         | -1 | -0.5 0 0.5            | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: Outcome:

1

2

04 Family vs individual 17 Change in FPG mmol/l at 72 weeks

| Study or sub-category                                  | N          | Family<br>Mean (SD) | N  | Individual<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------|---------------------|----|-------------------------|----|-----------------------|-------------|-----------------------|
| 01 LCD, BT, and PA                                     |            |                     |    |                         |    |                       |             |                       |
| Wing 1991 b  | 20         | -0.61(3.39)         | 23 | -2.00(4.72)             | ←  |                       | 100.00      | 1.39 [-1.04, 3.82]    |
| Subtotal (95% CI)                                      | 20         |                     | 23 |                         |    |                       | 100.00      | 1.39 [-1.04, 3.82]    |
| Test for heterogeneity: not applica                    | able       |                     |    |                         |    |                       |             |                       |
| Test for overall effect: Z = 1.12 (F                   | P = 0.26)  |                     |    |                         |    |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not application | 20<br>able |                     | 23 |                         |    |                       | 100.00      | 1.39 [-1.04, 3.82]    |
| Test for overall effect: Z = 1.12 (F                   |            |                     |    |                         |    |                       |             |                       |
|  |            |                     |    |                         | -1 | -0.5 0 0.5            | 1           |                       |

BEHAVIOUR THERAPY Analyses for adults Review: 04 Family vs individual 18 Change in %HbA1c at 20 weeks Comparison:

Outcome:

| Study or sub-category                   | N     | Family<br>Mean (SD) | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------|---------------------|----|-------------------------|-----------------------|-------------|-----------------------|
| 01 LCD, BT, and PA                      |       |                     |    |                         |                       |             |                       |
| Wing 1991 b                             | 20    | -1.20(1.90)         | 23 | -2.10(2.10)             |                       | 100.00      | 0.90 [-0.30, 2.10]    |
| Subtotal (95% CI)                       | 20    |                     | 23 |                         |                       | 100.00      | 0.90 [-0.30, 2.10]    |
| Test for heterogeneity: not applicab    | le    |                     |    |                         |                       |             |                       |
| Test for overall effect: Z = 1.48 (P =  | 0.14) |                     |    |                         |                       |             |                       |
| 02 LCD, BT, and PA                      |       |                     |    |                         |                       |             |                       |
| Subtotal (95% CI)                       | 0     |                     | 0  |                         |                       |             | Not estimable         |
| Test for heterogeneity: not applicab    | le    |                     |    |                         |                       |             |                       |
| Test for overall effect: not applicable |       |                     |    |                         |                       |             |                       |
| Total (95% CI)                          | 20    |                     | 23 |                         |                       | 100.00      | 0.90 [-0.30, 2.10]    |
| Test for heterogeneity: not applicab    | le    |                     |    |                         |                       |             |                       |
| Test for overall effect: Z = 1.48 (P =  |       |                     |    |                         |                       |             |                       |
|   |       |                     |    |                         | -1 -0.5 0 0.5         | 1           |                       |

BEHAVIOUR THERAPY Analyses for adults

Review: Comparison: Outcome: 04 Family vs individual 19 Change in %HbA1c at 72 weeks

| Study<br>or sub-category   | N | Family<br>Mean (SD) | N        | Individual<br>Mean (SD) |        | WMD (fi<br>95% ( | ,               | Weight<br>%      | WMD (fixed)<br>95% CI                    |
|--|---|---------------------|----------|-------------------------|--------|------------------|-----------------|------------------|--|
| 01 LCD, BT, and PA Wing 1991 b Subtotal (95% CI) Test for heterogeneity: not applicab Test for overall effect: Z = 0.85 (P = |   | -0.10(1.90)         | 23<br>23 | -0.70(2.70)             | =      |                  |                 | 100.00<br>100.00 | 0.60 [-0.78, 1.98]<br>0.60 [-0.78, 1.98] |
| Total (95% CI) Test for heterogeneity: not applicab Test for overall effect: Z = 0.85 (P =                                   |   |                     | 23       |                         | _      |                  |                 | 100.00           | 0.60 [-0.78, 1.98]                       |
|  |   |                     |          |                         | -1_    | -0.5 0           | 0.5             | 1                |  |
|  |   |                     |          |                         | Favour | s treatment      | Favours control |                  |  |

4

BEHAVIOUR THERAPY Analyses for adults

Comparison: Outcome: 05 Group vs individual 01 Weight change in kg at 10 weeks

| Study or sub-category        | N                        | Group<br>Mean (SD)             | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|--------------------------|--------------------------------|----|-------------------------|-----------------------|-------------|-----------------------|
| 01 Other                     |                          |                                |    |                         |                       |             |                       |
| Straw 1983 a                 | 9                        | -3.68(2.90)                    | 8  | -3.83(3.14)             | <del></del>           | 67.24       | 0.15 [-2.74, 3.04]    |
| Straw 1983 b                 | 5                        | -2.59(3.59)                    | 6  | -4.76(3.35)             |                       | 32.76       | 2.17 [-1.96, 6.30]    |
| Subtotal (95% CI)            | 14                       |                                | 14 |                         |                       | 100.00      | 0.81 [-1.55, 3.18]    |
| Test for heterogeneity: Chi  | $i^2 = 0.62$ , df = 1 (I | P = 0.43), I <sup>2</sup> = 0% |    |                         | _                     |             |                       |
| Test for overall effect: Z = | 0.67 (P = 0.50)          |                                |    |                         |                       |             |                       |
| Total (95% CI)               | 14                       |                                | 14 |                         |                       | 100.00      | 0.81 [-1.55, 3.18]    |
| Test for heterogeneity: Chi  | $i^2 = 0.62$ , df = 1 (I | P = 0.43), I <sup>2</sup> = 0% |    |                         | _                     |             |                       |
| Test for overall effect: Z = | 0.67 (P = 0.50)          |                                |    |                         |                       |             |                       |
|                              |                          |                                |    |                         | -10 -5 0 5            | 10          |                       |

Favours treatment Favours control

BEHAVIOUR THERAPY Analyses for adults 05 Group vs individual 02 Weight change in kg at 16 weeks (4 months) Review:

1

Comparison: Outcome:

| Study or sub-category                                       | N                        | Group<br>Mean (SD)             | N  | Individual<br>Mean (SD) | ,     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|--------------------------|--------------------------------|----|-------------------------|-------|-----------------------|-------------|-----------------------|
| 01 LCD  |                          |                                |    |                         |       |                       |             |                       |
| Jones 1986  | 9                        | -3.95(3.67)                    | 9  | -4.79(2.81)             |       | <del></del>           | 85.27       | 0.84 [-2.18, 3.86]    |
| Long 1983   | 10                       | -4.60(7.22)                    | 8  | -8.30(8.26)             | _     |                       | 14.73       | 3.70 [-3.57, 10.97]   |
| Subtotal (95% CI)   | 19                       |                                | 17 |                         |       |                       | 100.00      | 1.26 [-1.53, 4.05]    |
| Test for heterogeneity: Chi                                 | $^{2}$ = 0.51, df = 1 (I | P = 0.48), I <sup>2</sup> = 0% |    |                         |       |                       |             |                       |
| Test for overall effect: Z =                                | 0.89 (P = 0.38)          | •                              |    |                         |       |                       |             |                       |
| Total (95% CI)  | 19                       |                                | 17 |                         |       |                       | 100.00      | 1.26 [-1.53, 4.05]    |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = |                          | P = 0.48), I <sup>2</sup> = 0% |    |                         |       |                       |             |                       |
|   |                          |                                |    | -                       | 10 -5 | 0 5                   | 10          |                       |

Review: Comparison: BEHAVIOUR THERAPY Analyses for adults

05 Group vs individual

03 Weight change in kg at 12 months

| Study or sub-category                                      | N                          | Group<br>Mean (SD)                | N  | Individual<br>Mean (SD) |        |             | O (fixed)<br>i% CI                               | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----------------------------|-----------------------------------|----|-------------------------|--------|-------------|--|-------------|-----------------------|
| 01 LCD   |                            |                                   |    |                         |        |             |  |             |                       |
| Long 1983  | 7                          | -0.90(6.17)                       | 7  | -8.10(8.21)             |        |             | +  | 20.02       | 7.20 [-0.41, 14.81]   |
| Subtotal (95% CI)  | 7                          |                                   | 7  |                         |        |             |  | 20.02       | 7.20 [-0.41, 14.81]   |
| Test for heterogeneity: not                                | applicable                 |                                   |    |                         |        |             |  |             |                       |
| Test for overall effect: Z =                               | 1.85 (P = 0.06)            |                                   |    |                         |        |             |  |             |                       |
| 02 LCD, BT, and PA   |                            |                                   |    |                         |        |             |  |             |                       |
| Hakala 1993  | 30                         | -14.80(8.90)                      | 28 | -17.00(10.30)           |        |             | <del>                                     </del> | 46.93       | 2.20 [-2.77, 7.17]    |
| Subtotal (95% CI)  | 30                         |                                   | 28 |                         |        | -           |  | 46.93       | 2.20 [-2.77, 7.17]    |
| Test for heterogeneity: not                                |                            |                                   |    |                         |        |             |  |             |                       |
| Test for overall effect: Z =                               | 0.87 (P = 0.39)            |                                   |    |                         |        |             |  |             |                       |
| 03 Other   |                            |                                   |    |                         |        |             |  |             |                       |
| Straw 1983 a   | 6                          | -3.98(7.04)                       | 6  | 1.69(6.39)              | ←      |             | <del></del>                                      | 20.03       | -5.67 [-13.28, 1.94]  |
| Straw 1983 b   | 5                          | -4.99(7.33)                       | 5  | -6.94(7.88)             |        |             | -  | 13.02       | 1.95 [-7.48, 11.38]   |
| Subtotal (95% CI)  | 11                         |                                   | 11 |                         |        |             |  | 33.05       | -2.67 [-8.59, 3.25]   |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |                            | P = 0.22), I <sup>2</sup> = 34.2% |    |                         |        |             |  |             |                       |
| Total (95% CI)   | 48                         |                                   | 46 |                         |        | -           |  | 100.00      | 1.59 [-1.81, 5.00]    |
| Test for heterogeneity: Ch                                 | $i^2 = 5.65$ , $df = 3$ (I | P = 0.13), I <sup>2</sup> = 46.9% |    |                         |        |             |  |             |                       |
| Test for overall effect: Z =                               | 0.92 (P = 0.36)            | •                                 |    |                         |        |             |  |             |                       |
|  |                            |                                   |    |                         | -10    | -5          | 0 5  | 10          |                       |
|  |                            |                                   |    |                         | Favour | s treatment | Favours cor                                      | ntrol       |                       |

BEHAVIOUR THERAPY Analyses for adults 05 Group vs individual 04 Weight change in kg at 18 months Review: Comparison: Outcome:

| Study<br>or sub-category  | N | Group<br>Mean (SD) | N | Individual<br>Mean (SD) |       |              | MD (fixed)<br>95% CI |           | Weight<br>% | WMD (fixed)<br>95% CI |
|---|---|--------------------|---|-------------------------|-------|--------------|----------------------|-----------|-------------|-----------------------|
| 01 LCD  |   |                    |   |                         |       |              |                      |           |             |                       |
| Jones 1986  | 8 | -2.33(5.06)        | 9 | -3.07(5.34)             |       |              | _                    |           | 100.00      | 0.74 [-4.21, 5.69]    |
| Subtotal (95% CI)   | 8 |                    | 9 |                         |       |              |                      |           | 100.00      | 0.74 [-4.21, 5.69]    |
| Fest for heterogeneity: not Fest for overall effect: $Z = 0$              |   |                    |   |                         |       |              |                      |           |             |                       |
| Fotal (95% CI) Fest for heterogeneity: not Fest for overall effect: Z = 0 |   |                    | 9 |                         |       |              |                      |           | 100.00      | 0.74 [-4.21, 5.69]    |
|   |   |                    |   |                         | -10   | -5           | 0                    | 5         | 10          |                       |
|   |   |                    |   |                         | Favou | urs treatmei | nt Favo              | urs contr | ol          |                       |

Review: BEHAVIOUR THERAPY Analyses for adults Comparison: 05 Group vs individual

Outcome: 05 Weight change in kg at 24 months

| Study or sub-category  | N         | Group<br>Mean (SD) | N  | Individual<br>Mean (SD) | WMD (i<br>95% |        | WMD (fixed)<br>95% CI |
|--|-----------|--------------------|----|-------------------------|---------------|--------|-----------------------|
| 01 LCD, BT, and PA   |           |                    |    |                         |               |        |                       |
| Hakala 1993  | 30        | -4.20(9.70)        | 28 | -12.30(12.90)           |               | 100.00 | 8.10 [2.19, 14.01]    |
| Subtotal (95% CI)  | 30        |                    | 28 |                         |               | 100.00 | 8.10 [2.19, 14.01]    |
| Test for heterogeneity: not applica  | able      |                    |    |                         |               |        |                       |
| Test for overall effect: Z = 2.69 (F                                       | P = 0.007 |                    |    |                         |               |        |                       |
| Total (95% CI)   | 30        |                    | 28 |                         |               | 100.00 | 8.10 [2.19, 14.01]    |
| Test for heterogeneity: not applicate Test for overall effect: Z = 2.69 (F |           |                    |    |                         |               |        |                       |
|  |           |                    |    |                         | -10 -5 0      | 5 10   |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 05 Group vs individual

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Outcome: 06 Weight change in kg at 60 months

| Study or sub-category                | N         | Group<br>Mean (SD) | N  | Individual<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--------------------------------------|-----------|--------------------|----|-------------------------|-----|-----------------------|----------|-----------------------|
| 01 LCD, BT, and PA                   |           |                    |    |                         |     |                       |          |                       |
| Hakala 1993                          | 28        | -2.40(12.00)       | 25 | -6.80(16.70)            |     |                       | 100.00   | 4.40 [-3.51, 12.31]   |
| Subtotal (95% CI)                    | 28        |                    | 25 |                         |     |                       | 100.00   | 4.40 [-3.51, 12.31]   |
| Test for heterogeneity: not applic   | cable     |                    |    |                         |     |                       |          |                       |
| Test for overall effect: Z = 1.09 (I | P = 0.28) |                    |    |                         |     |                       |          |                       |
| Total (95% CI)                       | 28        |                    | 25 |                         |     |                       | 100.00   | 4.40 [-3.51, 12.31]   |
| Test for heterogeneity: not applic   | cable     |                    |    |                         |     |                       |          |                       |
| Test for overall effect: Z = 1.09 (F | P = 0.28) |                    |    |                         |     |                       |          |                       |
|                                      |           |                    |    |                         | -10 | -5 0                  | 5 10     |                       |

Review: BEHAVIOUR THERAPY Analyses for adults Comparison: 05 Group vs individual

Outcome: 07 Weight change over time

| Study or sub-category | N  | Family<br>Mean (SD) | N  | Individual<br>Mean (SD) | WMD (fixed)<br>95% CI                            | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|---------------------|----|-------------------------|--|-------------|-----------------------|
| 01 LCD                |    |                     |    |                         |  |             |                       |
| Jones 1986 16 weeks   | 9  | -3.95(3.67)         | 9  | -4.79(2.81)             | <del></del> _                                    | 58.72       | 0.84 [-2.18, 3.86]    |
| Jones 1986 18 months  | 8  | -2.33(5.06)         | 9  | -3.07(5.34)             |  | 21.89       | 0.74 [-4.21, 5.69]    |
| Long 1983 16 weeks    | 10 | -4.60(7.22)         | 8  | -8.30(8.26)             | <del></del>                                      | 10.14       | 3.70 [-3.57, 10.97]   |
| Long 1983 12 months   | 7  | -0.90(6.17)         | 7  | -8.10(8.21)             | <del>                                     </del> | 9.25        | 7.20 [-0.41, 14.81]   |
| 02 LCD, BT, and PA    |    |                     |    |                         |  |             |                       |
| Hakala 1993 3 months  | 30 | -15.37(5.03)        | 28 | -11.47(5.46)            | <del></del>                                      | 49.72       | -3.90 [-6.61, -1.19]  |
| Hakala 1993 8 months  | 30 | -14.80(8.30)        | 28 | -16.17(8.58)            | <del></del>                                      | 19.26       | 1.37 [-2.98, 5.72]    |
| Hakala 1993 12months  | 30 | -14.80(8.90)        | 28 | -17.00(10.30)           | <del></del>                                      | 14.75       | 2.20 [-2.77, 7.17]    |
| Hakala 1993 24months  | 30 | -4.20(9.70)         | 28 | -12.30(12.90)           |  | 10.45       | 8.10 [2.19, 14.01]    |
| Hakala 1993 60months  | 28 | -2.40(12.00)        | 25 | -6.80(16.70)            | -  | 5.82        | 4.40 [-3.51, 12.31]   |
| 03 Other              |    |                     |    |                         |  |             |                       |
| Straw 1983a 10 weeks  | 9  | -3.68(2.90)         | 8  | -3.83(3.14)             |  | 57.99       | 0.15 [-2.74, 3.04]    |
| Straw 1983a 12months  | 6  | -3.98(7.04)         | 6  | 1.69(6.39)              | <b>←</b>   | 8.34        | -5.67 [-13.28, 1.94]  |
| Straw 1983b 10 weeks  | 5  | -2.59(3.59)         | 6  | -4.76(3.35)             | <del></del>                                      | 28.25       | 2.17 [-1.96, 6.30]    |
| Straw 1983b 12months  | 5  | -4.99(7.33)         | 5  | -6.94(7.88)             |  | 5.42        | 1.95 [-7.48, 11.38]   |

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 05 Group vs individual
Outcome: 08 Weight change in kg at 3 months

WMD (fixed) 95% CI WMD (fixed) 95% CI Group Mean (SD) Weight % Study Individual or sub-category Mean (SD) 01 LCD, BT, and PA Hakala 1993 -15.37(5.03) -11.47(5.46) 100.00 -3.90 [-6.61, -1.19] -3.90 [-6.61, -1.19] Subtotal (95% CI) 30 28 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 2.82 (P = 0.005) Total (95% CI) 28 100.00 -3.90 [-6.61, -1.19] Test for heterogeneity: not applicable
Test for overall effect: Z = 2.82 (P = 0.005)

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Favours treatment Favours control

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BEHAVIOUR THERAPY Analyses for adults Comparison: 05 Group vs individual 09 Weight change in kg at 8 months Individual WMD (fixed) WMD (fixed) Study Weight Group or sub-category Ν Mean (SD) Ν Mean (SD) 01 LCD, BT, and PA Hakala 1993 30 -14.80(8.30) 2.8 -16.17(8.58) 100.00 1.37 [-2.98, 5.72] 1.37 [-2.98, 5.72] Subtotal (95% CI) 30 28 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.62 (P = 0.54) 1.37 [-2.98, 5.72] Total (95% CI) 28 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.62 (P = 0.54) 10 Favours treatment Favours control BEHAVIOUR THERAPY Analyses for adults Review: Comparison: 06 Intensive BT vs less intensive BT Outcome 01 Weight change in kg at 3 months Study INT BT and diet STD BT and diet WMD (fixed) Weight WMD (fixed) 95% CI 95% CI or sub-category Mean (SD) Mean (SD) 01 VLCD 17 -8.30(2.64) 15 -10.00(2.75) 100.00 1.70 [-0.17, 3.57] Melin 2003 1.70 [-0.17, 3.57] Subtotal (95% CI) 17 15 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 1.78 (P = 0.08) 15 100.00 1.70 [-0.17, 3.57] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 1.78 (P = 0.08) -10 -5 10 Favours treatment Favours control BEHAVIOUR THERAPY Analyses for adults Review Comparison: 06 Intensive BT vs less intensive BT Outcome 02 Weight change in kg at 6 months INT BT and diet STD BT and diet WMD (fixed) Weight WMD (fixed) or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 VLCD -10.60(2.64) -12.30(2.75) 1.70 [-0.17, 3.57] Melin 2003 17 100.00 15 Subtotal (95% CI) 15 100.00 1.70 [-0.17, 3.57] Test for heterogeneity: not applicable Test for overall effect: Z = 1.78 (P = 0.08) 15 100.00 1.70 [-0.17, 3.57] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 1.78 (P = 0.08) -10 -5 10 Favours treatment Favours control Review BEHAVIOUR THERAPY Analyses for adults Comparison: 06 Intensive BT vs less intensive BT Outcome: 03 Weight change in kg at 12 months INT BT and diet STD BT and diet WMD (fixed) WMD (fixed) Study Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 VLCD -1.18 [-4.16, 1.80] -1.18 [-4.16, 1.80] Melin 2003 -7.58(4.04) 15 15 -6.40(4.49) 100.00 Subtotal (95% CI) 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.78 (P = 0.44) -1.18 [-4.16, 1.80] Total (95% CI) 15 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.78 (P = 0.44) -10 10 Favours treatment Favours control Review: BEHAVIOUR THERAPY Analyses for adults

| Outcome:              | 06 Intensive BT vs less intensive BT<br>04 Weight change in kg at 24 months |                              |  |  |  |  |  |  |
|-----------------------|---|------------------------------|--|--|--|--|--|--|
| Study or sub-category | N   | INT BT and diet<br>Mean (SD) |  |  |  |  |  |  |
| 01 VLCD               | 17  | 6 00/5 77)                   |  |  |  |  |  |  |

| Study or sub-category                | N        | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |            | WMD (fixed)<br>95% CI |            | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------------|----------|------------------------------|----|------------------------------|------------|-----------------------|------------|-------------|-----------------------|
| 01 VLCD                              |          |                              |    |                              |            |                       |            |             |                       |
| Melin 2003                           | 17       | -6.80(5.77)                  | 15 | -8.60(6.20)                  |            |                       |            | 100.00      | 1.80 [-2.37, 5.97]    |
| Subtotal (95% CI)                    | 17       |                              | 15 |                              |            |                       |            | 100.00      | 1.80 [-2.37, 5.97]    |
| Test for heterogeneity: not applica  | able     |                              |    |                              |            |                       |            |             |                       |
| Test for overall effect: Z = 0.85 (P | P = 0.40 |                              |    |                              |            |                       |            |             |                       |
| Total (95% CI)                       | 17       |                              | 15 |                              |            |                       | _          | 100.00      | 1.80 [-2.37, 5.97]    |
| Test for heterogeneity: not applica  | able     |                              |    |                              |            |                       |            |             |                       |
| Test for overall effect: Z = 0.85 (P | 9 = 0.40 |                              |    |                              |            |                       |            |             |                       |
|                                      |          |                              |    |                              | -10 -5     | 5 0                   | 5 10       | 0           |                       |
|                                      |          |                              |    |                              | Favours tr | eatment Favou         | rs control |             |                       |

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Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 05 Weight change over time

| Study or sub-category | N  | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) | ,    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|------------------------------|----|------------------------------|------|-----------------------|-------------|-----------------------|
| 01 VLCD               |    |                              |    |                              |      |                       |             |                       |
| Melin 2003 3 months   | 17 | -8.30(2.64)                  | 15 | -10.00(2.75)                 |      | <del></del>           | 38.48       | 1.70 [-0.17, 3.57]    |
| Melin 2003 6 months   | 17 | -10.60(2.64)                 | 15 | -12.30(2.75)                 |      | <del></del>           | 38.48       | 1.70 [-0.17, 3.57]    |
| Melin 2003 12 months  | 17 | -7.58(4.04)                  | 15 | -6.40(4.49)                  | _    | <del></del>           | 15.27       | -1.18 [-4.16, 1.80]   |
| Melin 2003 24 months  | 17 | -6.80(5.77)                  | 15 | -8.60(6.20)                  |      | <del></del>           | 7.78        | 1.80 [-2.37, 5.97]    |
|                       |    |                              |    |                              | 40 5 | <u> </u>              | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

BEHAVIOUR THERAPY Analyses for adults

Comparison: 06 Intensive BT vs less intensive BT
Outcome: 06 Change in FPG mmol/l at 3 months

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| Study or sub-category                | N         | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |    | WMD (fixed<br>95% CI | l) Weight % | WMD (fixed)<br>95% CI |
|--------------------------------------|-----------|------------------------------|----|------------------------------|----|----------------------|-------------|-----------------------|
| 01 VLCD                              |           |                              |    |                              |    |                      |             |                       |
| Melin 2003                           | 17        | -0.35(1.44)                  | 15 | -0.90(1.51)                  |    |                      | 100.00      | 0.55 [-0.48, 1.58]    |
| Subtotal (95% CI)                    | 17        |                              | 15 |                              |    |                      | 100.00      | 0.55 [-0.48, 1.58]    |
| Test for heterogeneity: not applic   | able      |                              |    |                              |    |                      |             |                       |
| Test for overall effect: Z = 1.05 (F | P = 0.29) |                              |    |                              |    |                      |             |                       |
| Total (95% CI)                       | 17        |                              | 15 |                              |    |                      | 100.00      | 0.55 [-0.48, 1.58]    |
| Test for heterogeneity: not applic   | able      |                              |    |                              |    |                      |             |                       |
| Test for overall effect: Z = 1.05 (F | P = 0.29) |                              |    |                              |    |                      |             |                       |
|                                      |           |                              |    |                              | -1 | -0.5 0               | 0.5 1       |                       |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 07 Change in FPG mmol/l at 6 months

| Study or sub-category             | N          | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|------------------------------|----|------------------------------|--------|-----------------------|-------------|-----------------------|
| 01 VLCD                           |            |                              |    |                              |        |                       |             |                       |
| Melin 2003                        | 17         | -0.20(0.87)                  | 15 | -0.60(0.93)                  |        | <del></del>           | 100.00      | 0.40 [-0.23, 1.03]    |
| Subtotal (95% CI)                 | 17         |                              | 15 |                              |        |                       | 100.00      | 0.40 [-0.23, 1.03]    |
| Test for heterogeneity: not app   | licable    |                              |    |                              |        |                       |             |                       |
| Test for overall effect: Z = 1.25 | (P = 0.21) |                              |    |                              |        |                       |             |                       |
| Total (95% CI)                    | 17         |                              | 15 |                              |        |                       | 100.00      | 0.40 [-0.23, 1.03]    |
| Test for heterogeneity: not app   | licable    |                              |    |                              |        |                       |             |                       |
| Test for overall effect: Z = 1.25 | (P = 0.21) |                              |    |                              |        |                       |             |                       |
| _                                 |            |                              |    |                              | -1 -0. | 5 0 0.5               | 1           |                       |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 08 Change in FPG mmol/l at 12 months

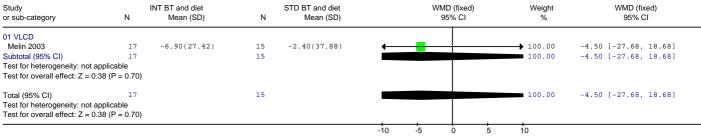
| Study or sub-category                          | N              | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |         | WMD (fixe<br>95% C | ,              | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----------------|------------------------------|----|------------------------------|---------|--------------------|----------------|-------------|-----------------------|
| 01 VLCD  |                |                              |    |                              |         |                    |                |             |                       |
| Melin 2003                                     | 17             | -0.20(1.15)                  | 15 | -0.90(1.32)                  |         |                    | <del></del> →  | 100.00      | 0.70 [-0.16, 1.56]    |
| Subtotal (95% CI)                              | 17             |                              | 15 |                              |         | _                  |                | 100.00      | 0.70 [-0.16, 1.56]    |
| Test for heterogeneity: not app                | olicable       |                              |    |                              |         |                    |                |             |                       |
| Test for overall effect: Z = 1.59              | 9 (P = 0.11)   |                              |    |                              |         |                    |                |             |                       |
| Total (95% CI) Test for heterogeneity: not app | 17<br>olicable |                              | 15 |                              |         | -                  |                | 100.00      | 0.70 [-0.16, 1.56]    |
| Test for overall effect: Z = 1.59              |                |                              |    |                              |         |                    |                |             |                       |
|  |                |                              |    |                              | -1 -    | 0.5 0              | 0.5            | 1           |                       |
|  |                |                              |    |                              | Favours | treatment F        | avours control |             |                       |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 09 Change in FPG mmol/l at 24 months

| Study<br>or sub-category           | N         | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |      |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|-----------|------------------------------|----|------------------------------|------|-------------|----------------------|-------------|-----------------------|
| 01 VLCD                            |           |                              |    |                              |      |             |                      |             |                       |
| Melin 2003                         | 17        | 0.08(0.99)                   | 15 | -0.50(1.01)                  |      |             |                      | 100.00      | 0.58 [-0.11, 1.27]    |
| Subtotal (95% CI)                  | 17        |                              | 15 |                              |      |             | -                    | 100.00      | 0.58 [-0.11, 1.27]    |
| Test for heterogeneity: not ag     | oplicable |                              |    |                              |      |             |                      |             |                       |
| Test for overall effect: $Z = 1.6$ |           |                              |    |                              |      |             |                      |             |                       |
| Гotal (95% CI)                     | 17        |                              | 15 |                              |      |             |                      | 100.00      | 0.58 [-0.11, 1.27]    |
| Test for heterogeneity: not ag     | oplicable |                              |    |                              |      |             |                      |             |                       |
| Test for overall effect: Z = 1.6   |           |                              |    |                              |      |             |                      |             |                       |
|                                    |           |                              |    |                              | -1   | -0.5        | 0 0                  | 0.5 1       |                       |
|                                    |           |                              |    |                              | Favo | urs treatme | ent Favours          | control     |                       |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 10 Change in SBP mmHg at 3 months

Study
or sub-category N Mean (SD)



Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 11 Change in SBP mmHg at 6 months

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| Study or sub-category                | N         | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--------------------------------------|-----------|------------------------------|----|------------------------------|-----|-----------------------|----------|-----------------------|
| 01 VLCD                              |           |                              |    |                              |     |                       |          |                       |
| Melin 2003                           | 17        | -8.10(10.72)                 | 15 | -2.10(11.23)                 | ← - | <del></del>           | 100.00   | -6.00 [-13.63, 1.63]  |
| Subtotal (95% CI)                    | 17        |                              | 15 |                              |     |                       | 100.00   | -6.00 [-13.63, 1.63]  |
| Test for heterogeneity: not applic   | able      |                              |    |                              |     |                       |          |                       |
| Test for overall effect: Z = 1.54 (F | P = 0.12) |                              |    |                              |     |                       |          |                       |
| Total (95% CI)                       | 17        |                              | 15 |                              |     |                       | 100.00   | -6.00 [-13.63, 1.63]  |
| Test for heterogeneity: not applic   | able      |                              |    |                              |     |                       |          |                       |
| Test for overall effect: Z = 1.54 (F | P = 0.12) |                              |    |                              |     |                       |          |                       |
|                                      |           |                              |    |                              | -10 | -5 0                  | 5 10     |                       |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 12 Change in SBP mmHg at 12 months

| Study or sub-category          | N              | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |     |    | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|----------------|------------------------------|----|------------------------------|-----|----|-----------------|-------------|-----------------------|
| 01 VLCD                        |                |                              |    |                              |     |    |                 |             |                       |
| Melin 2003                     | 17             | -5.00(12.37)                 | 15 | -0.40(13.94)                 | ←   | _  | <del></del>     | 100.00      | -4.60 [-13.78, 4.58]  |
| Subtotal (95% CI)              | 17             |                              | 15 |                              |     |    |                 | 100.00      | -4.60 [-13.78, 4.58]  |
| Test for heterogeneity: not a  | applicable     |                              |    |                              |     |    |                 |             |                       |
| Test for overall effect: Z = 0 |                |                              |    |                              |     |    |                 |             |                       |
| Total (95% CI)                 | 17             |                              | 15 |                              |     |    |                 | 100.00      | -4.60 [-13.78, 4.58]  |
| Test for heterogeneity: not a  | applicable     |                              |    |                              |     |    |                 |             |                       |
| Test for overall effect: Z = 0 | .98 (P = 0.33) |                              |    |                              |     |    |                 |             |                       |
|                                |                |                              |    |                              | -10 | -5 | 0 5             | 10          |                       |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 13 Change in SBP mmHg at 24 months

| Study or sub-category  | N  | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |       |             | MD (fixed)<br>95% CI |             | Weight<br>% | WMD (fixed)<br>95% CI  |
|--|----|------------------------------|----|------------------------------|-------|-------------|----------------------|-------------|-------------|------------------------|
| 01 VLCD  |    |                              |    |                              |       |             |                      |             |             |                        |
| Melin 2003   | 17 | -9.80(17.11)                 | 15 | 2.20(15.10)                  | ←     |             | _                    |             | 100.00      | -12.00 [-23.16, -0.84] |
| Subtotal (95% CI)  | 17 |                              | 15 |                              |       |             | _                    |             | 100.00      | -12.00 [-23.16, -0.84] |
| Test for heterogeneity: not applicable Test for overall effect: Z = 2.11 (P =                |    |                              |    |                              |       |             |                      |             |             |                        |
| Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 2.11 (P = |    |                              | 15 |                              |       |             | -                    |             | 100.00      | -12.00 [-23.16, -0.84] |
|  |    |                              |    |                              | -10   | -5          | 0                    | 5           | 10          |                        |
|  |    |                              |    |                              | Favoi | urs treatme | ent Favo             | ours contro | ol          |                        |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 14 Change in DBP mmHg at 3 months

| Study or sub-category  | N  | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |              |             | ID (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|------------------------------|----|------------------------------|--------------|-------------|---------------------|-------------|-----------------------|
| 01 VLCD  |    |                              |    |                              |              |             |                     |             |                       |
| Melin 2003   | 17 | -3.50(13.19)                 | 15 | -7.20(18.20)                 | _            |             |                     | 100.00      | 3.70 [-7.44, 14.84]   |
| Subtotal (95% CI)  | 17 |                              | 15 |                              | _            |             |                     | 100.00      | 3.70 [-7.44, 14.84]   |
| Test for heterogeneity: not ap<br>Test for overall effect: Z = 0.6             |    |                              |    |                              |              |             |                     |             |                       |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 0.6 |    |                              | 15 |                              | <del>-</del> |             |                     | 100.00      | 3.70 [-7.44, 14.84]   |
|  |    |                              |    |                              | -10          | -5          | 0 5                 | 10          |                       |
|  |    |                              |    |                              | Favou        | rs treatmen | t Favours co        | ontrol      |                       |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 15 Change in DBP mmHg at 6 months

| Study or sub-category                        | N              | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----------------|------------------------------|----|------------------------------|-----|-----------------------|-------------|-----------------------|
| 01 VLCD                                      |                |                              |    |                              |     |                       |             |                       |
| Melin 2003                                   | 17             | -5.20(8.04)                  | 15 | -5.00(8.40)                  | -   | <del></del>           | 100.00      | -0.20 [-5.92, 5.52]   |
| Subtotal (95% CI)                            | 17             |                              | 15 |                              | -   |                       | 100.00      | -0.20 [-5.92, 5.52]   |
| Test for heterogeneity: not a                | pplicable      |                              |    |                              |     | T                     |             |                       |
| Test for overall effect: $Z = 0$ .           | .07 (P = 0.95) |                              |    |                              |     |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not a |                |                              | 15 |                              | -   |                       | 100.00      | -0.20 [-5.92, 5.52]   |
| Test for overall effect: Z = 0.              | .07 (P = 0.95) |                              |    |                              | -10 | <u> </u>              | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 16 Change in DBP mmHg at 12 months

| Study or sub-category            | N            | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |     | WMD (fixe<br>95% CI | d) Weight % | WMD (fixed)<br>95% CI |
|----------------------------------|--------------|------------------------------|----|------------------------------|-----|---------------------|-------------|-----------------------|
| 01 VLCD                          |              |                              |    |                              |     |                     |             |                       |
| Melin 2003                       | 17           | -2.40(8.25)                  | 15 | -3.30(8.91)                  |     |                     | 100.00      | 0.90 [-5.08, 6.88]    |
| Subtotal (95% CI)                | 17           |                              | 15 |                              |     |                     | 100.00      | 0.90 [-5.08, 6.88]    |
| Test for heterogeneity: not ap   | plicable     |                              |    |                              |     |                     |             |                       |
| Test for overall effect: Z = 0.3 | 0 (P = 0.77) |                              |    |                              |     |                     |             |                       |
| Total (95% CI)                   | 17           |                              | 15 |                              |     |                     | 100.00      | 0.90 [-5.08, 6.88]    |
| Test for heterogeneity: not ap   | plicable     |                              |    |                              |     |                     |             |                       |
| Test for overall effect: Z = 0.3 |              |                              |    |                              |     |                     |             |                       |
|                                  |              |                              |    |                              | -10 | -5 0                | 5 10        |                       |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 06 Intensive BT vs less intensive BT
Outcome: 17 Change in DBP mmHg at 24 months

| Study or sub-category             | N            | INT BT and diet<br>Mean (SD) | N  | STD BT and diet<br>Mean (SD) |          | WMD (fixe<br>95% CI | , | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|--------------|------------------------------|----|------------------------------|----------|---------------------|---|-------------|-----------------------|
| 01 VLCD                           |              |                              |    |                              |          |                     |   |             |                       |
| Melin 2003                        | 17           | -6.60(9.57)                  | 15 | 1.30(8.44)                   | <b>←</b> | l                   |   | 100.00      | -7.90 [-14.14, -1.66] |
| Subtotal (95% CI)                 | 17           |                              | 15 |                              |          |                     |   | 100.00      | -7.90 [-14.14, -1.66] |
| Test for heterogeneity: not app   | olicable     |                              |    |                              |          |                     |   |             |                       |
| Test for overall effect: Z = 2.48 | 8 (P = 0.01) |                              |    |                              |          |                     |   |             |                       |
| Total (95% CI)                    | 17           |                              | 15 |                              |          |                     |   | 100.00      | -7.90 [-14.14, -1.66] |
| Test for heterogeneity: not app   | olicable     |                              |    |                              |          |                     |   |             |                       |
| Test for overall effect: Z = 2.48 | 8 (P = 0.01) |                              |    |                              |          |                     |   |             |                       |
|                                   |              |                              |    |                              | -10      | -5 0                | 5 | 10          |                       |

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 07 Diet and BT vs diet alone
Outcome: 01 Weight change in kg at 16 weeks

| Study or sub-category                                       | N               | Diet and BT<br>Mean (SD)          | N  | Diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | W    | eight % | WMD (fixed)<br>95% CI |
|---|-----------------|-----------------------------------|----|-------------------|-----|-----------------------|------|---------|-----------------------|
| 01 LCD  |                 |                                   |    |                   |     |                       |      |         |                       |
| Jones 1986 c  | 7               | -8.74(2.35)                       | 9  | -3.95(3.67)       |     | _                     | 4    | 6.16    | -4.79 [-7.75, -1.83]  |
| Jones 1986 d  | 9               | -4.52(3.66)                       | 9  | -4.79(2.81)       |     |                       | - 4  | 4.59    | 0.27 [-2.74, 3.28]    |
| Long 1983   | 10              | -6.90(7.87)                       | 10 | -4.60(7.22)       |     |                       | _    | 9.25    | -2.30 [-8.92, 4.32]   |
| Subtotal (95% CI)   | 26              |                                   | 28 |                   |     |                       | 10   | 0.00    | -2.30 [-4.32, -0.29]  |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = |                 | P = 0.06), I <sup>2</sup> = 63.7% |    |                   |     |                       |      |         |                       |
| Total (95% CI) Test for heterogeneity: Chi                  |                 | P = 0.06), I <sup>2</sup> = 63.7% | 28 |                   |     | •                     | 10   | 0.00    | -2.30 [-4.32, -0.29]  |
| Test for overall effect: Z =                                | 2.24 (P = 0.02) |                                   |    |                   |     | . 1                   |      |         |                       |
|   |                 |                                   |    |                   | -10 | -5 0                  | 5 10 |         |                       |

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| Study or sub-category  | N              | Diet and BT<br>Mean (SD) | N  | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----------------|--------------------------|----|-------------------|-----------------------|-------------|-----------------------|
| 01 PSMF  |                |                          |    |                   |                       |             |                       |
| Wadden 1989  | 31             | -16.80(6.68)             | 23 | -13.10(4.80)      | <del></del>           | 100.00      | -3.70 [-6.76, -0.64]  |
| Subtotal (95% CI)  | 31             |                          | 23 |                   |                       | 100.00      | -3.70 [-6.76, -0.64]  |
| Test for heterogeneity: not a  | applicable     |                          |    |                   |                       |             |                       |
| Test for overall effect: Z = 2   | .37 (P = 0.02) |                          |    |                   |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2. |                |                          | 23 |                   | •                     | 100.00      | -3.70 [-6.76, -0.64]  |
|  |                |                          |    |                   | -10 -5 0 5            | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 07 Diet and BT vs diet alone
Outcome: 03 Weight change in kg at 12 months

| Study or sub-category          | N                        | Diet and BT<br>Mean (SD)  | N  | Diet<br>Mean (SD) | WMD (fix<br>95% C |        | WMD (fixed)<br>95% CI |
|--------------------------------|--------------------------|---------------------------|----|-------------------|-------------------|--------|-----------------------|
| 01 LCD                         |                          |                           |    |                   |                   |        |                       |
| Long 1983                      | 9                        | -7.70(8.09)               | 7  | -0.90(6.17)       | <b>←</b>          | 37.85  | -6.80 [-13.79, 0.19]  |
| Subtotal (95% CI)              | 9                        |                           | 7  |                   |                   | 37.85  | -6.80 [-13.79, 0.19]  |
| Test for heterogeneity: not    | applicable               |                           |    |                   |                   |        |                       |
| Test for overall effect: Z = 1 | 1.91 (P = 0.06)          |                           |    |                   |                   |        |                       |
| 02 PSMF                        |                          |                           |    |                   |                   |        |                       |
| Wadden 1989                    | 19                       | -12.89(8.91)              | 15 | -4.70(7.31)       | <b>←</b>          | 62.15  | -8.19 [-13.64, -2.74] |
| Subtotal (95% CI)              | 19                       |                           | 15 |                   |                   | 62.15  | -8.19 [-13.64, -2.74] |
| Test for heterogeneity: not    | applicable               |                           |    |                   |                   |        |                       |
| Test for overall effect: Z = 2 |                          |                           |    |                   |                   |        |                       |
| Total (95% CI)                 | 28                       |                           | 22 |                   |                   | 100.00 | -7.66 [-11.96, -3.36] |
| Test for heterogeneity: Chi-   | $^{2} = 0.09$ , df = 1 ( | $P = 0.76$ ), $I^2 = 0\%$ |    |                   |                   |        |                       |
| Test for overall effect: Z = 3 |                          |                           |    |                   |                   |        |                       |
|                                |                          |                           |    |                   | -10 -5 0          | 5 10   |                       |

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 07 Diet and BT vs diet alone
Outcome: 04 Weight change in kg at 18 months

| Study<br>or sub-category                 | N                  | Diet and BT<br>Mean (SD)       | N  | Diet<br>Mean (SD) |             |              | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------------|--------------------------------|----|-------------------|-------------|--------------|-----------------|-------------|-----------------------|
| 01 LCD                                   |                    |                                |    |                   |             |              |                 |             |                       |
| Jones 1986 c                             | 7                  | -7.79(5.21)                    | 8  | -2.33(5.06)       | ←           | _            |                 | 63.11       | -5.46 [-10.67, -0.25] |
| Jones 1986 d                             | 7                  | -5.06(7.91)                    | 9  | -3.07(5.34)       | · · · · · · |              |                 | 36.89       | -1.99 [-8.81, 4.83]   |
| Subtotal (95% CI)                        | 14                 |                                | 17 |                   | -           |              |                 | 100.00      | -4.18 [-8.32, -0.04]  |
| Test for heterogeneity: Chi <sup>2</sup> | = 0.63, df = 1 (1) | P = 0.43), I <sup>2</sup> = 0% |    |                   |             |              |                 |             |                       |
| Test for overall effect: Z = 1           | .98 (P = 0.05)     |                                |    |                   |             |              |                 |             |                       |
| Total (95% CI)                           | 14                 |                                | 17 |                   | -           |              |                 | 100.00      | -4.18 [-8.32, -0.04]  |
| Test for heterogeneity: Chi <sup>2</sup> | = 0.63, df = 1 (1) | P = 0.43), I <sup>2</sup> = 0% |    |                   |             |              |                 |             |                       |
| Test for overall effect: Z = 1           | .98 (P = 0.05)     |                                |    |                   |             |              |                 |             |                       |
|  |                    |                                |    |                   | -10         | -5           | 0 5             | 10          |                       |
|  |                    |                                |    |                   | Favou       | rs treatment | Favours co      | ntrol       |                       |

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 07 Diet and BT vs diet alone
Outcome: 05 Weight change in kg at 36 months

| Study<br>or sub-category  | N  | Diet and BT<br>Mean (SD) | N  | Diet<br>Mean (SD) |     | WMD (fixe<br>95% CI | ,     | ight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------------|----|-------------------|-----|---------------------|-------|-----------|-----------------------|
| 01 PSMF   |    |                          |    |                   |     |                     |       |           |                       |
| Wadden 1989   | 19 | -5.11(8.28)              | 15 | -2.20(8.50)       |     | _                   | _ 100 | .00       | -2.91 [-8.60, 2.78]   |
| Subtotal (95% CI)   | 19 |                          | 15 |                   |     |                     |       | .00       | -2.91 [-8.60, 2.78]   |
| Test for heterogeneity: not a<br>Test for overall effect: Z = 1.            |    |                          |    |                   |     |                     |       |           |                       |
| otal (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 1. |    |                          | 15 |                   | -   |                     |       | .00       | -2.91 [-8.60, 2.78]   |
|   |    |                          |    |                   | -10 | -5 0                | 5 10  |           |                       |

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Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 07 Diet and BT vs diet alone
Outcome: 06 Weight change in kg at 60 months

| Study or sub-category   | N               | Diet and BT<br>Mean (SD) | N  | Diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------------|--------------------------|----|-------------------|-----|-----------------------|-------------|-----------------------|
| 01 PSMF   |                 |                          |    |                   |     |                       |             |                       |
| Wadden 1989   | 22              | 2.90(11.26)              | 18 | 1.00(6.79)        |     |                       | 100.00      | 1.90 [-3.75, 7.55]    |
| Subtotal (95% CI)   | 22              |                          | 18 |                   |     |                       | 100.00      | 1.90 [-3.75, 7.55]    |
| Test for heterogeneity: not   | applicable      |                          |    |                   |     |                       |             |                       |
| Test for overall effect: Z = 0  | 0.66 (P = 0.51) |                          |    |                   |     |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |                 |                          | 18 |                   |     |                       | 100.00      | 1.90 [-3.75, 7.55]    |
| - Cot for overall effect. Z = C   | 2.00 (i = 0.01) |                          |    |                   | -10 | -5 0 5                | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

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Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 07 Diet and BT vs diet alone
Outcome: 07 Weight change over time

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| Study<br>or sub-category | N  | Diet and BT<br>Mean (SD) | N  | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------|----|--------------------------|----|-------------------|-----------------------|-------------|-----------------------|
| 01 LCD                   |    |                          |    |                   |                       |             |                       |
| Jones c 16 weeks         | 7  | -8.74(2.35)              | 9  | -3.95(3.67)       | <del></del>           | 34.99       | -4.79 [-7.75, -1.83]  |
| Jones c 18 months        | 7  | -7.79(5.21)              | 8  | -2.33(5.06)       | <del></del>           | 11.30       | -5.46 [-10.67, -0.25] |
| Jones d 16 weeks         | 9  | -4.52(3.66)              | 9  | -4.79(2.81)       | <del></del>           | 33.80       | 0.27 [-2.74, 3.28]    |
| Jones d 18 months        | 7  | -5.06(7.91)              | 9  | -3.07(5.34)       | -                     | 6.61        | -1.99 [-8.81, 4.83]   |
| Long 1983 16 weeks       | 10 | -6.90(7.87)              | 10 | -4.60(7.22)       |                       | 7.01        | -2.30 [-8.92, 4.32]   |
| Long 1983 12 months      | 9  | -7.70(8.09)              | 7  | -0.90(6.17)       | <del></del>           | 6.29        | -6.80 [-13.79, 0.19]  |
| 02 PSMF                  |    |                          |    |                   |                       |             |                       |
| Wadden 1989 6 months     | 31 | -16.80(6.68)             | 23 | -13.10(4.80)      | <del></del>           | 52.68       | -3.70 [-6.76, -0.64]  |
| Wadden 1989 12months     | 19 | -12.89(8.91)             | 15 | -4.70(7.31)       | <del></del>           | 16.61       | -8.19 [-13.64, -2.74] |
| Wadden 1989 36months     | 19 | -5.11(8.28)              | 15 | -2.20(8.50)       |                       | 15.26       | -2.91 [-8.60, 2.78]   |
| Wadden 1989 60months     | 22 | 2.90(11.26)              | 18 | 1.00(6.79)        |                       | - 15.45     | 1.90 [-3.75, 7.55]    |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 08 Comparison of different BT
Outcome: 01 Weight change in kg at 20 weeks

WMD (fixed) WMD (fixed) Study Treatment A Treatment B Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 BT and RP vs BT and PS 0.87 [-2.05, 3.79] 0.87 [-2.05, 3.79] Perri 2001 Subtotal (95% CI) 20 -8.41(4.55) 23 -9.28(5.21) 100.00 23 20 100.00 Test for heterogeneity: not applicable
Test for overall effect: Z = 0.58 (P = 0.56) Total (95% CI)
Test for heterogeneity: not applicable 23 100.00 0.87 [-2.05, 3.79] Test for overall effect: Z = 0.58 (P = 0.56) 10

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 08 Comparison of different BT
Outcome: 02 Weight change in kg at 48 weeks

| Study<br>or sub-category           | N             | Treatment A<br>Mean (SD) | N  | Treatment B<br>Mean (SD) |     |    | MD (fixed)<br>95% CI                             | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|---------------|--------------------------|----|--------------------------|-----|----|--|-------------|-----------------------|
| 01 BT and RP vs BT and PS          |               |                          |    |                          |     |    |  |             |                       |
| Perri 2001                         | 20            | -9.38(8.57)              | 23 | -11.33(9.12)             |     | _  | <del>                                     </del> | - 100.00    | 1.95 [-3.34, 7.24]    |
| Subtotal (95% CI)                  | 20            |                          | 23 |                          |     | -  |  | - 100.00    | 1.95 [-3.34, 7.24]    |
| Test for heterogeneity: not ap     | oplicable     |                          |    |                          |     |    |  |             |                       |
| Test for overall effect: $Z = 0.7$ | 72 (P = 0.47) |                          |    |                          |     |    |  |             |                       |
| Total (95% CI)                     | 20            |                          | 23 |                          |     | -  |  | 100.00      | 1.95 [-3.34, 7.24]    |
| Test for heterogeneity: not ap     | oplicable     |                          |    |                          |     |    |  |             |                       |
| Test for overall effect: $Z = 0.7$ |               |                          |    |                          |     |    |  |             |                       |
|                                    |               |                          |    |                          | -10 | -5 | 0 5  | 10          |                       |

Review: BEHAVIOUR THERAPY Analyses for adults
Comparison: 08 Comparison of different BT
Outcome: 03 Weight change in kg at 68 weeks

| Study or sub-category   | N              | Treatment A<br>Mean (SD) | N  | Treatment B<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----------------|--------------------------|----|--------------------------|--------|-----------------------|-------------|-----------------------|
| 01 BT and RP vs BT and PS   | S              |                          |    |                          |        |                       |             |                       |
| Perri 2001  | 20             | -5.85(6.39)              | 23 | -10.82(8.65)             |        |                       | 100.00      | 4.97 [0.46, 9.48]     |
| Subtotal (95% CI)   | 20             |                          | 23 |                          |        |                       | 100.00      | 4.97 [0.46, 9.48]     |
| Test for heterogeneity: not a   | applicable     |                          |    |                          |        |                       |             |                       |
| Test for overall effect: Z = 2  | .16 (P = 0.03) |                          |    |                          |        |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2 |                |                          | 23 |                          |        |                       | 100.00      | 4.97 [0.46, 9.48]     |
|   |                |                          |    |                          | -10 -5 | 0 5                   | 10          |                       |

Favours treatment Favours control

Review: BEHAVIOUR THERAPY Analyses for adults

Comparison: 08 Comparison of different BT Outcome: 04 Weight change over time

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Study or sub-category WMD (fixed) 95% CI Weight % WMD (fixed) 95% CI Treatment A Treatment B Mean (SD) Mean (SD) 01 BT and RP vs BT and PS 0.87 [-2.05, 3.79] 1.95 [-3.34, 7.24] 4.97 [0.46, 9.48] Perri 2001 20 weeks 20 -8.41(4.55) 23 -9.28(5.21) 58.06 -9.38(8.57) Perri 2001 48 weeks -11.33(9.12) 17.65 20 23 Perri 2001 68 weeks 20 -5.85(6.39) 23 -10.82(8.65) 24.29 -10 -5 10 Favours control Favours treatment

3.3 Physical activity interventions

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 01 Physical activity vs control
Outcome: 01 Weight change in kg at 7 months

| Study or sub-category  | N  | Activity<br>Mean (SD) | N  | Control<br>Mean (SD) |     |    | O (fixed)<br>5% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|----------------------|-----|----|--------------------|---|-------------|-----------------------|
| Wood 1988  | 47 | -3.00(2.80)           | 42 | 0.20(2.50)           |     | -  |                    |   | 100.00      | -3.20 [-4.30, -2.10]  |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 5.7 |    | 1)                    | 42 |                      |     | •  |                    |   | 100.00      | -3.20 [-4.30, -2.10]  |
|  |    |                       |    |                      | -10 | -5 | 0                  | 5 | 10          |                       |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 01 Physical activity vs control
Outcome: 02 Weight change in kg at 12 months

| Study or sub-category                                      | N   | Activity<br>Mean (SD) | N   | Control<br>Mean (SD) |     | WMD (fix<br>95% C |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|-----------------------|-----|----------------------|-----|-------------------|---|-------------|-----------------------|
| ODES 1995  | 49  | -0.90(4.20)           | 43  | 1.10(2.62)           |     | -                 |   | 41.11       | -2.00 [-3.41, -0.59]  |
| Pritchard 1997   | 21  | -2.60(3.30)           | 19  | 0.30(2.40)           |     | <del></del> -     |   | 26.00       | -2.90 [-4.68, -1.12]  |
| Wood 1988  | 47  | -4.00(3.90)           | 42  | 0.60(3.70)           |     |                   |   | 32.89       | -4.60 [-6.18, -3.02]  |
| Total (95% CI)   | 117 |                       | 104 |                      |     | •                 |   | 100.00      | -3.09 [-4.00, -2.18]  |
| Test for heterogeneity: Cl<br>Test for overall effect: Z = |     |                       |     |                      | â   |                   | • | ,           |                       |
|  |     |                       |     |                      | -10 | -5 0              | 5 | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: 01 Physical activity vs control
Outcome: 03 Weight change over time

| Study or sub-category | N  | Activity<br>Mean (SD) | N  | Control<br>Mean (SD) |     |    | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|-----------------------|----|----------------------|-----|----|-----------------|---|-------------|-----------------------|
| Wood 1988 7 months    | 47 | -3.00(2.80)           | 42 | 0.20(2.50)           |     | -  |                 |   | 67.30       | -3.20 [-4.30, -2.10]  |
| Wood 1988 12 months   | 47 | -4.00(3.90)           | 42 | 0.60(3.70)           |     | -  |                 |   | 32.70       | -4.60 [-6.18, -3.02]  |
|                       |    |                       |    |                      | -10 | -5 | 0               | 5 | 10          |                       |

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PHYSICAL ACTIVITY Analyses for adults

Comparison:

01 Physical activity vs control
04 Change in total cholesterol in mmol/l at 7 months Outcome:

| Study or sub-category  | N  | Activity<br>Mean (SD) | N  | Control<br>Mean (SD) |    |          | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|----------------------|----|----------|-----------------|-------------|-----------------------|
| Wood 1988  | 47 | -0.21(0.63)           | 42 | -0.21(0.48)          |    | -        | <del>-</del>    | 100.00      | 0.00 [-0.23, 0.23]    |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0. |    |                       | 42 |                      |    | <b>-</b> |                 | 100.00      | 0.00 [-0.23, 0.23]    |
|  |    |                       |    |                      | -1 | -0.5     | 0 0.5           | 1           |                       |

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults

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Comparison: Outcome: 01 Physical activity vs control
05 Change in total cholesterol in mmol/l at 12 months

| Study or sub-category  | N  | Activity<br>Mean (SD)          | N  | Control<br>Mean (SD) |    | WMD (  | , , | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|--------------------------------|----|----------------------|----|--------|-----|-------------|-----------------------|
| ODES 1995  | 49 | -0.20(0.56)                    | 43 | -0.16(0.59)          |    |        | _   | 56.43       | -0.04 [-0.28, 0.20]   |
| Wood 1988  | 47 | -0.25(0.64)                    | 42 | -0.23(0.65)          |    |        |     | 43.57       | -0.02 [-0.29, 0.25]   |
| Total (95% CI) Test for heterogeneity: Ch Test for overall effect: Z = |    | P = 0.91), I <sup>2</sup> = 0% | 85 |                      |    | •      | -   | 100.00      | -0.03 [-0.21, 0.15]   |
| •  |    |                                |    |                      | -1 | -0.5 0 | 0.5 | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours control Favours treatment

PHYSICAL ACTIVITY Analyses for adults Review: Comparison: 01 Physical activity vs control

06 Change in LDL cholesterol in mmol/l at 7 months Outcome:

| Study<br>or sub-category  | N  | Activity<br>Mean (SD) | N  | Control<br>Mean (SD) |    |      | ID (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|----------------------|----|------|----------------------|-------------|-----------------------|
| Wood 1988   | 47 | -0.11(0.54)           | 42 | -0.15(0.46)          |    | -    | +                    | 100.00      | 0.04 [-0.17, 0.25]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                       | 42 |                      |    |      |                      | 100.00      | 0.04 [-0.17, 0.25]    |
|   |    |                       |    |                      | -1 | -0.5 | 0 0.5                | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison:

01 Physical activity vs control
07 Change in LDL cholesterol in mmol/l at 12 months Outcome:

| Study or sub-category                                     | N  | Activity<br>Mean (SD)          | N  | Control<br>Mean (SD) |    | WMD (fixe<br>95% CI | d)  | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------------------|----|----------------------|----|---------------------|-----|-------------|-----------------------|
| ODES 1995   | 49 | -0.13(0.49)                    | 43 | -0.22(0.59)          |    |                     | _   | 58.88       | 0.09 [-0.13, 0.31]    |
| Wood 1988   | 47 | -0.25(0.61)                    | 42 | -0.21(0.67)          |    | -                   | •   | 41.12       | -0.04 [-0.31, 0.23]   |
| Total (95% CI)  | 96 |                                | 85 |                      |    | <b>—</b>            |     | 100.00      | 0.04 [-0.13, 0.21]    |
| Test for heterogeneity: C<br>Test for overall effect: Z = |    | P = 0.46), I <sup>2</sup> = 0% |    |                      |    |                     |     |             |                       |
|   |    |                                |    |                      | -1 | -0.5 0              | 0.5 | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults

Comparison:

01 Physical activity vs control
08 Change in HDL cholesterol in mmol/l at 7 months

| Study or sub-category   | N  | Activity<br>Mean (SD) | N  | Control<br>Mean (SD) |    |      | D (fixed)<br>5% CI |     | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|----------------------|----|------|--------------------|-----|-------------|-----------------------|
| Wood 1988   | 47 | 0.09(0.21)            | 41 | 0.00(0.10)           |    |      | =                  |     | 100.00      | 0.09 [0.02, 0.16]     |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2 |    |                       | 41 |                      |    |      | <b>•</b>           | •   | 100.00      | 0.09 [0.02, 0.16]     |
|   |    |                       |    |                      | -1 | -0.5 | 0 (                | 0.5 | 1           |                       |

Review: PHYSICAL ACTIVITY Analyses for adults 01 Physical activity vs control

Comparison:

09 Change in HDL cholesterol in mmol/l at 12 months

| Study or sub-category                                      | N  | Activity<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD<br>95%      |              | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|----------------------|-----------------|--------------|-------------|-----------------------|
| ODES 1995  | 49 | 0.04(0.14)            | 43 | 0.02(0.10)           |                 | •            | 55.02       | 0.02 [-0.03, 0.07]    |
| Wood 1988  | 47 | 0.11(0.15)            | 41 | -0.02(0.11)          |                 | -            | 44.98       | 0.13 [0.08, 0.18]     |
| Total (95% CI)   | 96 |                       | 84 |                      |                 | •            | 100.00      | 0.07 [0.03, 0.11]     |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |    |                       |    |                      |                 |              |             |                       |
|  |    |                       |    |                      | -1 -0.5         | 0.5          | 1           |                       |
|  |    |                       |    |                      | Favours control | Favours trea | tment       |                       |

PHYSICAL ACTIVITY Analyses for adults Comparison: 01 Physical activity vs control 10 Change in triglycerides in mmol/l at 7 months WMD (fixed) Weight WMD (fixed) Study Control Activity Ν Mean (SD) Ν Mean (SD) or sub-category 47 -0.25(0.61) 42 -0.01(0.51) 100.00 -0.24 [-0.47, -0.01] Wood 1988 42 100.00 -0.24 [-0.47, -0.01] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 2.02 (P = 0.04) -0.5 0.5 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults 01 Physical activity vs control
11 Change in triglycerides in mmol/l at 12 months Comparison: Outcome: WMD (fixed) Weight WMD (fixed) Study Control Activity or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI ODES 1995 49 -0.24(0.70) 43 0.17(0.92) 32.89 -0.41 [-0.75, -0.07] Wood 1988 47 -0.16(0.53) 42 0.08(0.60) 67.11 -0.24 [-0.48, 0.00] Total (95% CI) 96 85 100.00 -0.30 [-0.49, -0.10] Test for heterogeneity:  $Chi^2 = 0.65$ , df = 1 (P = 0.42),  $I^2 = 0\%$ Test for overall effect: Z = 2.99 (P = 0.003) -0.5 Ö 0.5 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review: 01 Physical activity vs control Comparison: Outcome 12 Change in fasting plasma glucose in mmol/l at 12 months Weight Activity Mean (SD) Control WMD (fixed) WMD (fixed) Mean (SD) Ν Ν 95% CI 95% CI or sub-category % -0.09(0.42) 0.07(0.46) -0.16 [-0.34, 0.02] **ODES 1995** 49 43 100.00 Total (95% CI) 43 100.00 -0.16 [-0.34, 0.02] Test for heterogeneity: not applicable Test for overall effect: Z = 1.73 (P = 0.08) 10 -10 . -5 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review: Comparison: 01 Physical activity vs control 13 Change in DBP in mmHg at 12 months Outcome: Study Activity Control WMD (fixed) Weight WMD (fixed) Mean (SD) Mean (SD) 95% CI Ν Ν 95% CI or sub-category -2.70(7.00) **ODES 1995** 49 -0.70(8.52) -2.00 [-5.21, 1.21] 43 55.83 -4.10(8.00) -2.60(8.10) -1.50 [-5.11, 2.11] Wood 1988 42 35 44.17 100.00 -1.78 [-4.18, 0.62] Total (95% CI) 78 Test for heterogeneity: Chi<sup>2</sup> = 0.04, df = 1 (P = 0.84),  $I^2$  = 0% Test for overall effect: Z = 1.45 (P = 0.15) -10 -5 Ö 10 Favours treatment Favours control Review: PHYSICAL ACTIVITY Analyses for adults Comparison: 01 Physical activity vs control 14 Change in SBP in mmHg at 12 months WMD (fixed) WMD (fixed) Study Activity Control Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI ODES 1995 49 -2.20(7.70) 43 -0.50(11.15) 46 11 -1.70 [-5.67, 2.27] Wood 1988 42 -6.60(8.40) 35 -4.10(8.00) 53.89 -2.50 [-6.17, 1.17] Total (95% CI) 91 78 100.00 -2.13 [-4.83, 0.56] Test for heterogeneity:  $Chi^2 = 0.08$ , df = 1 (P = 0.77),  $I^2 = 0\%$ Test for overall effect: Z = 1.55 (P = 0.12) -10 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review: 02 Physical activity vs information Comparison: Outcome: 01 Weight change in kg at 18 months

| Study or sub-category  | N  | Activity<br>Mean (SD) | N  | Information<br>Mean (SD) |      | WMD (fixe<br>95% CI | ,            | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|--------------------------|------|---------------------|--------------|-------------|-----------------------|
| Messier 2004   | 80 | -3.46(6.89)           | 78 | -1.10(6.23)              |      | -                   |              | 100.00      | -2.36 [-4.41, -0.31]  |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2. |    |                       | 78 |                          |      |                     |              | 100.00      | -2.36 [-4.41, -0.31]  |
|  |    |                       |    |                          | -10  | -5 0                | 5            | 10          |                       |
|  |    |                       |    |                          | Eavo | ire treatment Ea    | voure contro | st.         |                       |

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PHYSICAL ACTIVITY Analyses for adults Comparison: 03 Physical activity vs diet 01 Weight change in kg at 7 months WMD (fixed) WMD (fixed) Weight Study Activity Diet Ν Mean (SD) Ν Mean (SD) or sub-category 01 600kcal/day deficit or low fat Wood 1988 47 -3.00(2.80) 42 -7.60(3.90) 100.00 4.60 [3.17, 6.03] Subtotal (95% CI) 42 100.00 4.60 [3.17, 6.03] 47 Test for heterogeneity: not applicable Test for overall effect: Z = 6.32 (P < 0.00001) 4.60 [3.17, 6.03] Total (95% CI) 42 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 6.32 (P < 0.00001) 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review: Comparison: 03 Physical activity vs diet 02 Weight change in kg at 12 months Outcome Activity Mean (SD) Study Diet WMD (fixed) Weight WMD (fixed) Mean (SD) N 95% CI 95% CI or sub-category 01 600kcal/day deficit or low fat ODES 1995 40 -0.90(4.20) 52 -4.00(5.05) 32.61 3.10 [1.29, 4.91] Pritchard 1997 21 -2.60(3.30) 18 -6.40(3.30) 24.69 3.80 [1.72, 5.88] -7.20(3.70) 3.20 [1.62, 4.78] Wood 1988 -4.00(3.90) 42 42.70 Subtotal (95% CI) 117 112 100.00 3.32 [2.28, Test for heterogeneity: Chi<sup>2</sup> = 0.28, df = 2 (P = 0.87),  $I^2 = 0\%$ Test for overall effect: Z = 6.30 (P < 0.00001) 112 3.32 [2.28, 4.35] Total (95% CI) 100.00 Test for heterogeneity:  $Chi^2 = 0.28$ , df = 2 (P = 0.87),  $I^2 = 0\%$ Test for overall effect: Z = 6.30 (P < 0.00001) -10 -5 10 Favours treatment Favours control Review PHYSICAL ACTIVITY Analyses for adults 03 Physical activity vs diet Comparison: 03 Weight change over time WMD (fixed) Study Diet Weight WMD (fixed) Activity or sub-category N Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 600kcal/deficit or low fat diet Wood 1988 7 months -7.60(3.90) 4.60 [3.17, 6.03] 47 -3.00(2.80) 42 55.12 Wood 1988 12 months -4.00(3.90) 42 -7.20(3.70) 3.20 [1.62, 4.78] 47 44.88 -10 10 Favours control Favours treatment PHYSICAL ACTIVITY Analyses for adults Review 03 Physical activity vs diet Comparison Outcome 04 Change in total cholesterol in mmol/l at 7 months Activity Diet WMD (fixed) Weight WMD (fixed) Mean (SD) Ν Mean (SD) or sub-category Ν 95% CI 95% CI 01 600kcal/day deficit or low fat Wood 1988 -0.21(0.63) -0.40(0.55) 0.19 [-0.06, 0.44] 42 100.00 Subtotal (95% CI) 47 42 100.00 0.19 [-0.06, 0.44] Test for heterogeneity: not applicable Test for overall effect: Z = 1.52 (P = 0.13) Total (95% CI) 42 100.00 0.19 [-0.06, 0.44] Test for heterogeneity: not applicable Test for overall effect: Z = 1.52 (P = 0.13) -0.5 0.5 Favours treatment Favours control Review: PHYSICAL ACTIVITY Analyses for adults Comparison: 03 Physical activity vs diet 05 Change in total cholesterol in mmol/l at 12 months Outcome: WMD (fixed) Weight WMD (fixed) Study Diet Activity or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 600kcal/day deficit or low fat **ODES 1995** 49 -0.20(0.56)52 -0.23(0.65) 52.70 0.03 [-0.21, 0.27] 42 -0.36(0.56) 0.11 [-0.14, 0.36] Wood 1988 Subtotal (95% CI) 96 94 100.00 0.07 [-0.10, 0.24] Test for heterogeneity:  $Chi^2 = 0.21$ , df = 1 (P = 0.65),  $I^2 = 0\%$ Test for overall effect: Z = 0.78 (P = 0.44) 94 100.00 0.07 [-0.10, 0.24] Test for heterogeneity:  $Chi^2 = 0.21$ , df = 1 (P = 0.65),  $I^2 = 0\%$ 

Test for overall effect: Z = 0.78 (P = 0.44)

0.5

-0.5

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome: 03 Physical activity vs diet
06 Change in LDL cholesterol in mmol/l at 7 months

| Study or sub-category  | N          | Activity<br>Mean (SD) | N  | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI                             | Weight<br>% | WMD (fixed)<br>95% CI |  |
|--|------------|-----------------------|----|-------------------|---|-------------|-----------------------|--|
| 01 600kcal/day deficit or low fa                                     | t          |                       |    |                   |   |             |                       |  |
| Wood 1988  | 47         | -0.11(0.54)           | 42 | -0.27(0.59)       | <del>                                      </del> | 100.00      | 0.16 [-0.08, 0.40]    |  |
| Subtotal (95% CI)  | 47         |                       | 42 |                   |   | 100.00      | 0.16 [-0.08, 0.40]    |  |
| Test for heterogeneity: not app                                      | licable    |                       |    |                   |   |             |                       |  |
| Test for overall effect: Z = 1.33                                    | (P = 0.18) |                       |    |                   |   |             |                       |  |
| Total (95% CI)   | 47         |                       | 42 |                   |   | 100.00      | 0.16 [-0.08, 0.40]    |  |
| Test for heterogeneity: not app<br>Test for overall effect: Z = 1.33 |            |                       |    |                   |   |             |                       |  |
|  |            |                       |    |                   | -1 -0.5 0 0.5                                     | 1           |                       |  |

Favours treatment Favours control

Favours treatment Favours control

Favours control Favours treatment

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome:

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03 Physical activity vs diet
07 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category   | N               | Activity<br>Mean (SD)          | N  | Diet<br>Mean (SD) |      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------------|--------------------------------|----|-------------------|------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo  | ow fat          |                                |    |                   |      |                       |             |                       |
| ODES 1995   | 49              | -0.13(0.49)                    | 52 | -0.18(0.72)       |      | <del></del>           | 54.30       | 0.05 [-0.19, 0.29]    |
| Wood 1988   | 47              | -0.25(0.61)                    | 42 | -0.31(0.64)       |      | <del></del> _         | 45.70       | 0.06 [-0.20, 0.32]    |
| Subtotal (95% CI)   | 96              |                                | 94 |                   |      |                       | 100.00      | 0.05 [-0.12, 0.23]    |
| Test for heterogeneity: Chi<br>Test for overall effect: Z =             |                 | P = 0.96), I <sup>2</sup> = 0% |    |                   |      |                       |             |                       |
| Total (95% CI) Test for heterogeneity: Chi Test for overall effect: Z = |                 | P = 0.96), I <sup>2</sup> = 0% | 94 |                   |      | •                     | 100.00      | 0.05 [-0.12, 0.23]    |
| rest for overall effect: Z =  | 0.61 (F = 0.54) |                                |    |                   |      |                       |             |                       |
|   |                 |                                |    |                   | -1 - | 0.5 0 0.5             | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

03 Physical activity vs diet
08 Change in HDL cholesterol in mmol/l at 7 months Comparison: Outcome:

| Study or sub-category             | N          | Activity<br>Mean (SD) | N  | Diet<br>Mean (SD) | W       | /MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|-----------------------|----|-------------------|---------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fa  | nt         |                       |    |                   |         |                       |             |                       |
| Wood 1988                         | 47         | 0.09(0.21)            | 41 | 0.06(0.14)        |         | =                     | 100.00      | 0.03 [-0.04, 0.10]    |
| Subtotal (95% CI)                 | 47         |                       | 41 |                   |         | •                     | 100.00      | 0.03 [-0.04, 0.10]    |
| Test for heterogeneity: not app   | licable    |                       |    |                   |         | ľ                     |             |                       |
| Test for overall effect: Z = 0.80 | (P = 0.43) |                       |    |                   |         |                       |             |                       |
| Total (95% CI)                    | 47         |                       | 41 |                   |         | •                     | 100.00      | 0.03 [-0.04, 0.10]    |
| Test for heterogeneity: not app   | licable    |                       |    |                   |         | ľ                     |             |                       |
| Test for overall effect: Z = 0.80 | (P = 0.43) |                       |    |                   |         |                       |             |                       |
|                                   |            |                       |    |                   | -1 -0.5 | 0 0.5                 | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome:

03 Physical activity vs diet
09 Change in HDL cholesterol in mmol/l at 12 months

| Study or sub-category                    | N                | Activity<br>Mean (SD)               | N  | Diet<br>Mean (SD) |                |               | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------------|-------------------------------------|----|-------------------|----------------|---------------|----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lov            | / fat            |                                     |    |                   |                |               |                      |             |                       |
| ODES 1995                                | 49               | 0.04(0.14)                          | 52 | 0.05(0.12)        |                |               | <u> </u>             | 61.97       | -0.01 [-0.06, 0.04]   |
| Wood 1988                                | 47               | 0.11(0.15)                          | 41 | 0.12(0.16)        |                |               | <del>-</del>         | 38.03       | -0.01 [-0.08, 0.06]   |
| Subtotal (95% CI)                        | 96               |                                     | 93 |                   |                |               | •                    | 100.00      | -0.01 [-0.05, 0.03]   |
| Test for heterogeneity: Chi <sup>2</sup> | = 2.89E-32, df = | : 1 (P = 1.00), I <sup>2</sup> = 0% |    |                   |                |               | 1                    |             |                       |
| Test for overall effect: $Z = 0$         | .49 (P = 0.63)   | , ,                                 |    |                   |                |               |                      |             |                       |
| Total (95% CI)                           | 96               |                                     | 93 |                   |                |               | •                    | 100.00      | -0.01 [-0.05, 0.03]   |
| Test for heterogeneity: Chi <sup>2</sup> | = 2.89E-32, df = | : 1 (P = 1.00), I <sup>2</sup> = 0% |    |                   |                |               | 1                    |             |                       |
| Test for overall effect: $Z = 0$         | .49 (P = 0.63)   | , ,                                 |    |                   |                |               |                      |             |                       |
|  |                  |                                     |    |                   | <del>-</del> 1 | -0.5          | 0 0.5                | 1           |                       |
|  |                  |                                     |    |                   | Fa             | avours contro | ol Favours trea      | atment      |                       |

PHYSICAL ACTIVITY Analyses for adults 03 Physical activity vs diet Comparison:

10 Change in triglycerides in mmol/l at 7 months Outcome:

| Study or sub-category             | N          | Activity<br>Mean (SD) | N  | Diet<br>Mean (SD) |         | O (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|-----------------------|----|-------------------|---------|--------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fa  | t          |                       |    |                   |         |                    |             |                       |
| Wood 1988                         | 47         | -0.25(0.61)           | 42 | -0.40(0.60)       | -       | +                  | 100.00      | 0.15 [-0.10, 0.40]    |
| Subtotal (95% CI)                 | 47         |                       | 42 |                   | -       |                    | 100.00      | 0.15 [-0.10, 0.40]    |
| Test for heterogeneity: not app   | licable    |                       |    |                   |         | 1                  |             |                       |
| Test for overall effect: Z = 1.17 | (P = 0.24) |                       |    |                   |         |                    |             |                       |
| Total (95% CI)                    | 47         |                       | 42 |                   | -       |                    | 100.00      | 0.15 [-0.10, 0.40]    |
| Test for heterogeneity: not app   | licable    |                       |    |                   |         |                    |             |                       |
| Test for overall effect: Z = 1.17 | (P = 0.24) |                       |    |                   |         |                    |             |                       |
|                                   |            |                       |    |                   | -1 -0.5 | 0 0.5              | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: 03 Physical activity vs diet

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11 Change in triglycerides in mmol/l at 12 months Outcome:

| Study or sub-category                    | N                         | Activity<br>Mean (SD)          | N  | Diet<br>Mean (SD) |         | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------------------------|--------------------------------|----|-------------------|---------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lov            | w fat                     |                                |    |                   |         |                       |             |                       |
| ODES 1995                                | 49                        | -0.24(0.70)                    | 52 | -0.23(1.01)       | -       | <del></del>           | 38.22       | -0.01 [-0.35, 0.33]   |
| Wood 1988                                | 47                        | -0.16(0.53)                    | 42 | -0.27(0.72)       |         | <del></del>           | 61.78       | 0.11 [-0.16, 0.38]    |
| Subtotal (95% CI)                        | 96                        |                                | 94 |                   |         |                       | 100.00      | 0.06 [-0.14, 0.27]    |
| Test for heterogeneity: Chi <sup>2</sup> | $^{2}$ = 0.30, df = 1 (1) | P = 0.58), I <sup>2</sup> = 0% |    |                   |         |                       |             |                       |
| Test for overall effect: Z = 0           | 0.60 (P = 0.55)           |                                |    |                   |         |                       |             |                       |
| Total (95% CI)                           | 96                        |                                | 94 |                   |         |                       | 100.00      | 0.06 [-0.14, 0.27]    |
| Test for heterogeneity: Chi <sup>2</sup> | $^{2}$ = 0.30, df = 1 (   | P = 0.58), I <sup>2</sup> = 0% |    |                   |         | _                     |             |                       |
| Test for overall effect: Z = 0           | 0.60 (P = 0.55)           |                                |    |                   |         |                       |             |                       |
|  |                           |                                |    |                   | -1 -0.5 | 0 0.5                 | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review: Comparison: Outcome: 03 Physical activity vs diet 12 Change in DBP in mmHg at 12 months

| Study or sub-category   | N                           | Activity<br>Mean (SD)          | N  | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------------------------|--------------------------------|----|-------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo  | w fat                       |                                |    |                   |                       |             |                       |
| ODES 1995   | 49                          | -2.70(7.00)                    | 52 | -3.40(7.21)       | <del>-  </del>        | 59.40       | 0.70 [-2.07, 3.47]    |
| Wood 1988   | 42                          | -4.10(8.00)                    | 38 | -5.60(7.30)       | <del></del>           | 40.60       | 1.50 [-1.85, 4.85]    |
| Subtotal (95% CI)   | 91                          |                                | 90 |                   |                       | 100.00      | 1.02 [-1.11, 3.16]    |
| Test for heterogeneity: Chi   | $i^2 = 0.13$ , $df = 1$ (1) | P = 0.72), I <sup>2</sup> = 0% |    |                   |                       |             |                       |
| Test for overall effect: Z = 0  | 0.94 (P = 0.35)             |                                |    |                   |                       |             |                       |
| Total (95% CI) Test for heterogeneity: Chi Test for overall effect: Z = 6 |                             | P = 0.72), I <sup>2</sup> = 0% | 90 |                   | -                     | 100.00      | 1.02 [-1.11, 3.16]    |
|   |                             |                                |    |                   | -10 -5 0 5            | 10          |                       |

Review: PHYSICAL ACTIVITY Analyses for adults Comparison: Outcome: 03 Physical activity vs diet 13 Change in SBP in mmHg at 12 months

Weight % WMD (fixed) WMD (fixed) Study Activity Mean (SD) Diet or sub-category Ν Mean (SD) 01 600kcal/day deficit or low fat 4.20 [0.71, 7.69] -0.90 [-4.47, 2.67] 1.71 [-0.79, 4.21] -6.40(10.10) -5.70(7.90) **ODES 1995** 49 -2.20(7.70) 52 51.16 Wood 1988 42 -6.60(8.40) 38 48.84 Subtotal (95% CI) 91 90 100.00 Test for heterogeneity: Chi² = 4.01, df = 1 (P = 0.05), l² = 75.0%Test for overall effect: Z = 1.34 (P = 0.18) 1.71 [-0.79, 4.21] Total (95% CI) 90 100.00 Test for heterogeneity: Chi² = 4.01, df = 1 (P = 0.05), l² = 75.0%Test for overall effect: Z = 1.34 (P = 0.18) -10 -5 10

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PHYSICAL ACTIVITY Analyses for adults Comparison: 03 Physical activity vs diet 14 Change in fasting plasma glucose in mmol/l at 12 months WMD (fixed) WMD (fixed) Weight Study Activity Diet Ν Mean (SD) Ν Mean (SD) or sub-category 01 600kcal/day deficit or low fat **ODES 1995** 49 -0.09(0.42) 52 -0.21(0.50) 100.00 0.12 [-0.06, 0.30] Subtotal (95% CI) 52 100.00 0.12 [-0.06, 0.30] 49 Test for heterogeneity: not applicable Test for overall effect: Z = 1.31 (P = 0.19) 0.12 [-0.06, 0.30] Total (95% CI) 52 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 1.31 (P = 0.19) 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review: Comparison: 04 Physical activity vs diet (CALCULATIONS ONLY) Outcome 15 Change in body fat % at 12 months Activity Mean (SD) Weight Study WMD (fixed) WMD (fixed) Mean (SD) 95% CI N 95% CI or sub-category Wood 1988 42 -3.70(3.40) 38 -4.60(4.50) 100.00 0.90 [-0.86, 2.66] Total (95% CI) 42 38 100.00 0.90 [-0.86, 2.66] Test for heterogeneity: not applicable Test for overall effect: Z = 1.00 (P = 0.32) -10 -5 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review Comparison 04 Physical activity vs diet (CALCULATIONS ONLY) 16 Change in calories/day at 12 months Outcome WMD (fixed) WMD (fixed) Study Activity Diet Weight Mean (SD) Ν Mean (SD) Ν 95% CI 95% CI or sub-category % Wood 1988 42 -169.00(602.00) 38 -306.00(448.00) **100.00** 137.00 [-94.16, 368.16] Total (95% CI) 42 38 100.00 137.00 [-94.16, 368.16] Test for heterogeneity: not applicable Test for overall effect: Z = 1.16 (P = 0.25) -10 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review: Comparison: 04 Physical activity vs diet (CALCULATIONS ONLY) Outcome 17 Change in fat in g/day at 12 months Activity Mean (SD) Study Diet WMD (fixed) Weight WMD (fixed) Mean (SD) or sub-category 42 -2.20(5.50) 38 2.00(7.20) 100.00 -4.20 [-7.03, -1.37] Wood 1988 Total (95% CI) 42 38 100.00 -4.20 [-7.03, -1.37] Test for heterogeneity: not applicable Test for overall effect: Z = 2.91 (P = 0.004) -10 -5 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review: 04 Physical activity vs diet (CALCULATIONS ONLY) 18 Change in saturated fat in g/day at 12 months Comparison Outcome WMD (fixed) WMD (fixed) Study Activity Diet Weight Mean (SD) Ν Mean (SD) 95% CI or sub-category Wood 1988 42 -0.90(2.90) 38 -1.00(3.00) 100.00 0.10 [-1.20, 1.40] 42 38 100.00 0.10 [-1.20, 1.40] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.15 (P = 0.88) -10 -5 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review: 04 Physical activity vs diet (CALCULATIONS ONLY) 19 Change in polyunsaturated fat in g/day at 12 months Comparison: Outcome WMD (fixed) WMD (fixed) Study Activity Diet Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Wood 1988 42 0.00(2.50) 38 -0.20(2.30) 100.00 0.20 [-0.85, 1.25] 38 100.00 0.20 [-0.85, 1.25] Total (95% CI) Test for overall effect: Z = 0.37 (P = 0.71) -10 -5 10

Favours control

Favours treatment

PHYSICAL ACTIVITY Analyses for adults 04 Physical activity vs diet (CALCULATIONS ONLY) Comparison: 20 Change in monunsaturated fat in g/kcal at 12 months WMD (fixed) Weight WMD (fixed) Study Activity Diet Ν Mean (SD) Ν Mean (SD) or sub-category 42 -1.10(2.60) 38 -0.80(3.40) 100.00 -0.30 [-1.64, 1.04] Wood 1988 -0.30 [-1.64, 1.04] 42 38 100.00 Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.44 (P = 0.66) -10 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults 04 Physical activity vs diet (CALCULATIONS ONLY) 21 Change in alcohol in g/day at 12 months Comparison: Outcome: Diet WMD (fixed) Weight WMD (fixed) Study Activity Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Wood 1988 42 -3.30(1.60) 38 -4.80(13.00) 100.00 1.50 [-2.66, 5.66] Total (95% CI) 38 100.00 1.50 [-2.66, 5.66] Test for heterogeneity: not applicable Test for overall effect: Z = 0.71 (P = 0.48) -10 -5 ņ 5 10 Favours treatment PHYSICAL ACTIVITY Analyses for adults
04 Physical activity vs diet (CALCULATIONS ONLY) Review Comparison: 22 Change in calcium in mg/day at 12 months Outcome Diet WMD (fixed) WMD (fixed) Study Activity Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Wood 1988 -25.00(316.00) -111.00(333.00) ▶ 100.00 86.00 [-56.63, 228.63] 38 Total (95% CI) 38 86.00 [-56.63, 228.63] Test for heterogeneity: not applicable Test for overall effect: Z = 1.18 (P = 0.24) -10 -5 Ö 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults 04 Physical activity vs diet (CALCULATIONS ONLY) Review Comparison: 23 Change in potassium in mg/day at 12 months WMD (fixed) Weight WMD (fixed) Study Activity or sub-category N Mean (SD) Ν Mean (SD) 95% CI 95% CI Wood 1988 42 -215.00(758.00) 38 -208.00(823.00) **→** 100.00 -7.00 [-354.88, 340.88] -7.00 [-354.88, 340.88] 38 Test for heterogeneity: not applicable Test for overall effect: Z = 0.04 (P = 0.97) -10 -5 10 Favours control Favours treatment Review PHYSICAL ACTIVITY Analyses for adults 04 Physical activity vs diet (CALCULATIONS ONLY) Comparison: Outcome 24 Change in sodium in mg/day at 12 months WMD (fixed) WMD (fixed) Activity Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Wood 1988 42 -111.00(1083.00) 38 -148.00(856.00) **→** 100.00 37.00 [-388.85, 462.85] 42 38 100.00 37.00 [-388.85, 462.85] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.17 (P = 0.86) -10 -5 ò 5 10 Favours control PHYSICAL ACTIVITY Analyses for adults Review 04 Physical activity vs diet (CALCULATIONS ONLY) Comparison: Outcome 25 Change in VO2 max in ml/kg/min at 12 months WMD (fixed) WMD (fixed) Activity Weight Mean (SD) or sub-category Ν Ν Mean (SD) 95% CI 95% CI

**ODES 1995** 

4.00(0.70) 52 1.70(0.72) 98.05 2.30 [2.02, 2.58] 41 4.10 [2.13, 6.07] 4.10(5.90) 0.00(3.20) Wood 1988 46 93 100.00 2.34 [2.06, 2.61] Total (95% CI) Test for heterogeneity:  $Chi^2 = 3.16$ , df = 1 (P = 0.08),  $I^2 = 68.3\%$ Test for overall effect: Z = 16.69 (P < 0.00001) -10 -5 10

Favours treatment Favours control

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PHYSICAL ACTIVITY Analyses for adults 04 Physical activity vs diet (CALCULATIONS ONLY) 26 Change in treadmill test duration in min at 12 months Comparison: Outcome:

| Study<br>or sub-category   | N  | Activity<br>Mean (SD) | N  | Diet<br>Mean (SD) |     | WMD (fix<br>95% ( |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|-------------------|-----|-------------------|---|-------------|-----------------------|
| Wood 1988  | 46 | 0.30(2.00)            | 39 | -0.80(1.30)       |     | -                 | • | 100.00      | 1.10 [0.39, 1.81]     |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 3. |    |                       | 39 |                   |     |                   |   | 100.00      | 1.10 [0.39, 1.81]     |
|  |    |                       |    |                   | -10 | -5 0              | 5 | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

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Favours treatment Favours control

Favours treatment Favours control

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PHYSICAL ACTIVITY Analyses for adults 05 Physical activity vs diet and behaviour therapy 01 Weight change in kg at 18 months Comparison: Outcome:

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| Study or sub-category  | N  | Activity<br>Mean (SD) | N  | BT<br>Mean (SD) |     | WMD (fixed<br>95% CI | ) | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|-----------------|-----|----------------------|---|-------------|-----------------------|
| Messier 2004   | 80 | -3.46(6.89)           | 82 | -4.61(7.22)     |     | +                    | - | 100.00      | 1.15 [-1.02, 3.32]    |
| Total (95% CI) Test for heterogeneity: not applic Test for overall effect: Z = 1.04 (I |    |                       | 82 |                 |     |                      | - | 100.00      | 1.15 [-1.02, 3.32]    |
|  |    |                       |    |                 | -10 | -5 0                 | 5 | 10          | -                     |

PHYSICAL ACTIVITY Analyses for adults 06 Physical activity and diet vs control (no treatment) Comparison:

01 Weight change in kg at 4 months

WMD (fixed) WMD (fixed) Study Activity and diet Control Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 600kcal/day deficit or low fat 0.40(6.03) 1.50(6.34) -1.10 [-4.86, 2.66] -3.00 [-7.47, 1.47] MET 2003 a 25 18 58.47 16 -2.90(6.74) 15 0.10(5.94) Subtotal (95% CI) \$41\$ Test for heterogeneity: Chi² = 0.41, df = 1 (P = 0.52), I² = 0% 33 100.00 -1.89 [-4.77, 0.99] Test for overall effect: Z = 1.29 (P = 0.20) Total (95% CI) 33 100.00 -1.89 [-4.77, 0.99] Test for heterogeneity: Chi<sup>2</sup> = 0.41, df = 1 (P = 0.52),  $I^2$  = 0% Test for overall effect: Z = 1.29 (P = 0.20)

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PHYSICAL ACTIVITY Analyses for adults Review:

06 Physical activity and diet vs control (no treatment) Comparison:

Outcome: 02 Weight change in kg at 9 months

| Study<br>or sub-category  | N     | Activity and diet<br>Mean (SD) | N  | Control<br>Mean (SD) |          | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------|--------------------------------|----|----------------------|----------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low   | r fat |                                |    |                      |          |                       |             |                       |
| MET 2003 a  | 25    | 0.10(5.94)                     | 18 | 1.90(6.45)           |          | <del></del>           | 61.85       | -1.80 [-5.58, 1.98]   |
| MET 2003 b  | 16    | -5.30(7.41)                    | 15 | -1.20(6.25)          |          | <del></del>           | 38.15       | -4.10 [-8.92, 0.72]   |
| Subtotal (95% CI)   | 41    |                                | 33 |                      | -        |                       | 100.00      | -2.68 [-5.65, 0.30]   |
| Test for heterogeneity: Chi <sup>2</sup> :<br>Test for overall effect: Z = 1. |       | P = 0.46), I <sup>2</sup> = 0% |    |                      |          |                       |             |                       |
| Total (95% CI)  | 41    |                                | 33 |                      | <b>-</b> |                       | 100.00      | -2.68 [-5.65, 0.30]   |
| Test for heterogeneity: Chi <sup>2</sup> :<br>Test for overall effect: Z = 1. |       | P = 0.46), I <sup>2</sup> = 0% |    |                      |          |                       |             |                       |
|   |       |                                |    |                      | -10 -5   | 0 5                   | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults 06 Physical activity and diet vs control (no treatment) Review: Comparison:

Outcome: 03 Weight change in kg at 12 months

| Study or sub-category                                       | N     | Activity and diet<br>Mean (SD) | N   | Control<br>Mean (SD) |       |             | MD (fixed)<br>95% CI |           | Weight<br>% | WMD (fixed)<br>95% CI  |
|---|-------|--------------------------------|-----|----------------------|-------|-------------|----------------------|-----------|-------------|------------------------|
| 01 600kcal/day deficit or lo                                | w fat |                                |     |                      |       |             |                      |           |             |                        |
| MET 2003 a  | 25    | 0.70(6.11)                     | 18  | 2.40(6.59)           |       |             | <del></del>          |           | 6.74        | -1.70 [-5.57, 2.17]    |
| MET 2003 b  | 16    | -4.60(7.22)                    | 15  | -0.60(6.08)          |       |             | <del></del>          |           | 4.60        | -4.00 [-8.69, 0.69]    |
| ODES 1995   | 65    | -5.60(4.84)                    | 43  | 1.10(2.62)           |       | _           |                      |           | 50.64       | -6.70 [-8.11, -5.29]   |
| Wood 1991a  | 42    | -5.10(5.30)                    | 39  | 1.30(5.20)           |       |             |                      |           | 19.33       | -6.40 [-8.69, -4.11]   |
| Wood 1991b  | 39    | -8.70(5.70)                    | 40  | 1.70(4.80)           | ←     |             |                      |           | 18.69       | -10.40 [-12.73, -8.07] |
| Subtotal (95% CI)   | 187   |                                | 155 |                      | •     | <b>&gt;</b> |                      |           | 100.00      | -6.87 [-7.88, -5.87]   |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = |       |                                |     |                      |       |             |                      |           |             |                        |
| Total (95% CI)  | 187   |                                | 155 |                      | •     | •           |                      |           | 100.00      | -6.87 [-7.88, -5.87]   |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = |       | · /·                           |     |                      | ·     |             |                      |           |             |                        |
|   |       |                                |     |                      | -10   | -5          | 0                    | 5         | 10          |                        |
|   |       |                                |     |                      | Favou | rs treatme  | nt Favour            | s control |             |                        |

PHYSICAL ACTIVITY Analyses for adults Comparison: 06 Physical activity and diet vs control (no treatment) Outcome: 04 Weight change in kg at 16 months

WMD (fixed) WMD (fixed) Study Activity and diet Control Weight or sub-category Ν Ν Mean (SD) 01 600kcal/day deficit or low fat MET 2003 a 25 0.60(6.08) 18 2.90(6.74) 59.42 -2.30 [-6.22, 1.62] -4.70 [-9.45, 0.05] MET 2003 b 16 -5.20(7.39) 15 -0.50(6.06) 40.58 Subtotal (95% CI) 41 33 100.00 -3.27 [-6.30, -0.25] Test for heterogeneity:  $Chi^2 = 0.58$ , df = 1 (P = 0.44),  $I^2 = 0\%$ Test for overall effect: Z = 2.12 (P = 0.03) 33 100.00 -3.27 [-6.30, -0.25] Total (95% CI) Test for heterogeneity: Chi<sup>2</sup> = 0.58, df = 1 (P = 0.44),  $I^2$  = 0% Test for overall effect: Z = 2.12 (P = 0.03)

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Favours treatment Favours control

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Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults 06 Physical activity and diet vs control (no treatment) Comparison:

05 Weight change over time

| Study or sub-category             | N  | Activity<br>Mean (SD) | N  | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|----|-----------------------|----|-------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/deficit or low fat die | t  |                       |    |                   |                       |             |                       |
| MET 2003 a 4 months               | 25 | 0.40(6.03)            | 18 | 1.50(6.34)        | <del></del>           | 15.50       | -1.10 [-4.86, 2.66]   |
| MET 2003 a 9 months               | 25 | 0.10(5.94)            | 18 | 1.90(6.45)        | <del></del>           | 15.36       | -1.80 [-5.58, 1.98]   |
| MET 2003 a 12 months              | 25 | 0.70(6.11)            | 18 | 2.40(6.59)        | <del></del>           | 14.64       | -1.70 [-5.57, 2.17]   |
| MET 2003 a 16 months              | 25 | 0.60(6.08)            | 18 | 2.90(6.74)        | <del></del>           | 14.28       | -2.30 [-6.22, 1.62]   |
| MET 2003 b 4 months               | 16 | -2.90(6.74)           | 15 | 0.10(5.94)        | <del></del>           | 11.01       | -3.00 [-7.47, 1.47]   |
| MET 2003 b 9 months               | 16 | -5.30(7.41)           | 15 | -1.20(6.25)       | <del></del>           | 9.47        | -4.10 [-8.92, 0.72]   |
| MET 2003 b 12 months              | 16 | -4.60(7.22)           | 15 | -0.60(6.08)       | <del></del>           | 9.99        | -4.00 [-8.69, 0.69]   |
| MET 2003 b 16 months              | 16 | -5.20(7.39)           | 15 | -0.50(6.06)       | <del></del>           | 9.75        | -4.70 [-9.45, 0.05]   |

PHYSICAL ACTIVITY Analyses for adults Review: Comparison: 06 Physical activity and diet vs control (no treatment) 06 Change in total cholesterol in mmol/l at 12 months Outcome

WMD (fixed) WMD (fixed) Study Activity and diet Control Weight or sub-category Mean (SD) Mean (SD) 95% CI 95% CI 01 600kcal/day deficit or low fat -0.48(0.89) -0.28(0.52) -0.16(0.59) -0.03(0.47) 29.76 49.88 -0.32 [-0.60, -0.04] -0.25 [-0.47, -0.03] ODES 1995 Wood 1991a 42 39 Wood 1991b 39 40 -0.14(0.64) -0.24 [-0.58, 0.10] Subtotal (95% CI) 146 122 100.00 -0.27 [-0.42, -0.12] Test for heterogeneity:  $Chi^2 = 0.19$ , df = 2 (P = 0.91),  $I^2 = 0\%$ Test for overall effect: Z = 3.46 (P = 0.0005) 122 100.00 -0.27 [-0.42, -0.12] Test for heterogeneity: Chi<sup>2</sup> = 0.19, df = 2 (P = 0.91),  $I^2$  = 0% Test for overall effect: Z = 3.46 (P = 0.0005) -0.5 0.5

Review: PHYSICAL ACTIVITY Analyses for adults
06 Physical activity and diet vs control (no treatment) Comparison: Outcome: 07 Change in LDL cholesterol in mmol/l at 12 months

| Study<br>or sub-category  | N     | Activity and diet<br>Mean (SD) | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------|--------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low   | / fat |                                |     |                      |                       |             |                       |
| ODES 1995   | 65    | -0.39(0.81)                    | 43  | -0.22(0.59)          | <del></del>           | 27.07       | -0.17 [-0.43, 0.09]   |
| Wood 1991a  | 42    | -0.29(0.46)                    | 39  | -0.03(0.41)          | <del></del> -         | 52.67       | -0.26 [-0.45, -0.07]  |
| Wood 1991b  | 39    | -0.27(0.78)                    | 40  | -0.20(0.59)          |                       | 20.26       | -0.07 [-0.38, 0.24]   |
| Subtotal (95% CI)   | 146   |                                | 122 |                      | •                     | 100.00      | -0.20 [-0.33, -0.06]  |
| Test for heterogeneity: Chi <sup>2</sup> Test for overall effect: Z = 2.                |       |                                |     |                      |                       |             |                       |
| Fotal (95% CI) Fest for heterogeneity: Chi <sup>2</sup> Fest for overall effect: Z = 2. |       | , .                            | 122 |                      | •                     | 100.00      | -0.20 [-0.33, -0.06]  |

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Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 06 Physical activity and diet vs control (no treatment)
Outcome: 08 Change in HDL cholesterol in mmol/l at 12 months

| Study or sub-category   | N     | Activity and diet<br>Mean (SD) | N   | Control<br>Mean (SD) | WMD (<br>95% |             | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------|--------------------------------|-----|----------------------|--------------|-------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo  | w fat |                                |     |                      |              |             |             |                       |
| ODES 1995   | 65    | 0.13(0.15)                     | 43  | 0.02(0.10)           |              | =           | 59.78       | 0.11 [0.06, 0.16]     |
| Wood 1991a  | 42    | 0.02(0.18)                     | 39  | -0.05(0.24)          | +            | <del></del> | 15.39       | 0.07 [-0.02, 0.16]    |
| Wood 1991b  | 39    | 0.14(0.18)                     | 40  | -0.05(0.15)          |              | -           | 24.83       | 0.19 [0.12, 0.26]     |
| Subtotal (95% CI)   | 146   |                                | 122 |                      |              | •           | 100.00      | 0.12 [0.09, 0.16]     |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = 0             |       | , .                            |     |                      |              |             |             |                       |
| Total (95% CI) Test for heterogeneity: Chi Test for overall effect: Z = 6 |       | , .                            | 122 |                      |              | •           | 100.00      | 0.12 [0.09, 0.16]     |
|   |       |                                |     | -                    | 1 -0.5 0     | 0.5         | 1           |                       |

Favours control Favours treatment

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Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 06 Physical activity and diet vs control (no treatment)
Outcome: 09 Change in triglycerides in mmol/l at 12 months

| Study or sub-category   | N               | Activity and diet<br>Mean (SD)       | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------------|--------------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low   | / fat           |                                      |     |                      |                       |             |                       |
| ODES 1995   | 65              | -0.58(0.97)                          | 43  | 0.17(0.92)           | <b>←</b>              | 11.11       | -0.75 [-1.11, -0.39]  |
| Wood 1991a  | 42              | -0.02(0.26)                          | 39  | 0.13(0.37)           | <del>-</del>          | 74.10       | -0.15 [-0.29, -0.01]  |
| Wood 1991b  | 39              | -0.48(0.75)                          | 40  | 0.18(0.67)           | <del></del>           | 14.79       | -0.66 [-0.97, -0.35]  |
| Subtotal (95% CI)   | 146             |                                      | 122 |                      | •                     | 100.00      | -0.29 [-0.41, -0.17]  |
| Test for heterogeneity: Chi <sup>2</sup>                              | = 15.36, df = 2 | (P = 0.0005), I <sup>2</sup> = 87.0% |     |                      | •                     |             |                       |
| Test for overall effect: Z = 4.                                       | .74 (P < 0.0000 | 1)                                   |     |                      |                       |             |                       |
| Total (95% CI)  | 146             |                                      | 122 |                      | •                     | 100.00      | -0.29 [-0.41, -0.17]  |
| Test for heterogeneity: $Chi^2$<br>Test for overall effect: $Z = 4$ . |                 |                                      |     |                      |                       |             |                       |
|   |                 |                                      |     |                      | -1 -0.5 0 0.5         | 1           |                       |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 06 Physical activity and diet vs control (no treatment)
Outcome: 10 Change in fasting plasma glucose in mmol/l at 12 months

| Study or sub-category                        | N                | Activity and diet<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------------|--------------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lov                | w fat            |                                |    |                      |                       |             |                       |
| ODES 1995                                    | 65               | -0.26(0.64)                    | 43 | 0.07(0.46)           | <del></del>           | 100.00      | -0.33 [-0.54, -0.12]  |
| Subtotal (95% CI)                            | 65               |                                | 43 |                      |                       | 100.00      | -0.33 [-0.54, -0.12]  |
| Test for heterogeneity: not a                | applicable       |                                |    |                      |                       |             |                       |
| Test for overall effect: Z = 3               | 3.12 (P = 0.002) |                                |    |                      |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not a | 65<br>applicable |                                | 43 |                      | •                     | 100.00      | -0.33 [-0.54, -0.12]  |
| Test for overall effect: Z = 3               | 3.12 (P = 0.002) |                                |    |                      |                       |             |                       |
|  |                  |                                |    |                      | -1 -05 0 05           | 1           |                       |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 06 Physical activity and diet vs control (no treatment)
Outcome: 11 Change in DBP in mmHg at 12 months

| Study<br>r sub-category   | N   | Activity and diet<br>Mean (SD) | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|--------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 1 600kcal/day deficit or low  | fat |                                |     |                      |                       |             |                       |
| ODES 1995   | 65  | -5.20(7.26)                    | 43  | -0.70(8.52)          | <del></del>           | 20.23       | -4.50 [-7.60, -1.40]  |
| Wood 1991a  | 42  | -2.00(4.10)                    | 39  | 0.90(5.30)           | <del></del>           | 45.11       | -2.90 [-4.97, -0.83]  |
| Wood 1991b  | 39  | -4.90(5.70)                    | 40  | 2.10(5.00)           | <del></del>           | 34.67       | -7.00 [-9.37, -4.63]  |
| Subtotal (95% CI)   | 146 |                                | 122 |                      | •                     | 100.00      | -4.64 [-6.04, -3.25]  |
| est for heterogeneity: $Chi^2 =$<br>est for overall effect: $Z = 6.5$     |     |                                |     |                      |                       |             |                       |
| otal (95% CI)   | 146 |                                | 122 |                      | •                     | 100.00      | -4.64 [-6.04, -3.25]  |
| est for heterogeneity: Chi <sup>2</sup> = est for overall effect: Z = 6.5 |     |                                |     |                      |                       |             |                       |

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FDPS 12 months

FDPS 24 months

FDPS 36 months

PHYSICAL ACTIVITY Analyses for adults Comparison: 06 Physical activity and diet vs control (no treatment) 12 Change in SBP in mmHg at 12 months WMD (fixed) WMD (fixed) Weight Study Activity and diet Control Ν Ν Mean (SD) or sub-category 01 600kcal/day deficit or low fat **ODES 1995** 65 -5.90(8.87) 43 -0.50(11.15) 25.74 -5.40 [-9.37, -1.43] 39 -3.40 [-6.52, -0.28] Wood 1991a 42 -3.60(7.70) -0.20(6.60) 41.76 Wood 1991b 39 -5.40(8.30) 40 0.10(7.70) 32.50 -5.50 [-9.03, -1.97] Subtotal (95% CI) 146 122 100.00 -4.60 [-6.61, -2.58] Test for heterogeneity:  $Chi^2 = 0.97$ , df = 2 (P = 0.61),  $I^2 = 0\%$ Test for overall effect: Z = 4.47 (P < 0.00001) Total (95% CI) 122 100.00 -4.60 [-6.61, -2.58] Test for heterogeneity:  $Chi^2 = 0.97$ , df = 2 (P = 0.61),  $I^2 = 0\%$ Test for overall effect: Z = 4.47 (P < 0.00001) -10 10 Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review Comparison: 07 Physical activity and diet vs information Outcome: 01 Weight change in kg at 12 months Activity and diet Information WMD (fixed) Weight WMD (fixed) Ν Mean (SD) or sub-category Ν Mean (SD) 95% CI 95% CI 01 600kcal/day deficit or low fat FDPS 2003 256 -4.50(5.00) 250 -1.00(3.70) 100.00 -3.50 [-4.27, -2.73] Subtotal (95% CI) 256 250 100.00 -3.50 [-4.27, -2.73] Test for heterogeneity: not applicable Test for overall effect: Z = 8.97 (P < 0.00001) 250 Total (95% CI) 100.00 -3.50 [-4.27, -2.73] Test for heterogeneity: not applicable
Test for overall effect: Z = 8.97 (P < 0.00001) -10 -5 'n 10 Favours treatment Favours control Review PHYSICAL ACTIVITY Analyses for adults Comparison: 07 Physical activity and diet vs information 02 Weight change in kg at 24 months Study WMD (fixed) Weight WMD (fixed) Activity and diet Information or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI 01 600kcal/day deficit or low fat -2.70 [-3.60, -1.80] FDPS 2003 -3.50(5.50) 226 -0.80(4.40) 100.00 244 -2.70 [-3.60, -1.80] Subtotal (95% CI) Test for heterogeneity: not applicable
Test for overall effect: Z = 5.90 (P < 0.00001) -2.70 [-3.60, -1.80] 226 100.00 Total (95% CI) 244 Test for heterogeneity: not applicable Test for overall effect: Z = 5.90 (P < 0.00001) -10 10 Favours treatment Favours control Review PHYSICAL ACTIVITY Analyses for adults Comparison: 07 Physical activity and diet vs information 03 Weight change in kg at 36 months Outcome Study Activity and diet Information WMD (fixed) Weight WMD (fixed) Ν N Mean (SD) or sub-category 01 600kcal/day deficit or low fat FDPS 2003 231 -3.50(5.10) 203 -0.90(5.40) 100.00 -2.60 [-3.59, -1.61] Subtotal (95% CI) -2.60 [-3.59, -1.61] 231 203 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 5.14 (P < 0.00001) Total (95% CI) 203 100.00 -2.60 [-3.59. -1.61] Test for heterogeneity: not applicable Test for overall effect: Z = 5.14 (P < 0.00001) 10 ò Favours treatment Favours control PHYSICAL ACTIVITY Analyses for adults Review: 07 Physical activity and diet vs information Comparison: Outcome: 04 Weight change over time Activity and diet Information WMD (fixed) Weight WMD (fixed) Ν Mean (SD) Ν Mean (SD) or sub-category 95% CI % 95% CI 01 600kcal/deficit or low fat diet

-1.00(3.70)

-0.80(4.40)

-0.90(5.40)

-10

-5

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Favours treatment Favours control

250

226

203

-4.50(5.00)

-3.50(5.50)

-3.50(5.10)

256

244

231

43.07

31.31

25.62

10

[-4.27, -2.73]

-2.70 [-3.60, -1.80] -2.60 [-3.59, -1.61]

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 07 Physical activity and diet vs information
Outcome: 05 Change in total cholesterol in mmol/l at 12 months

Study Activity and diet
or sub-category N Mean (SD)

01 600kcal/day deficit or low fat
FDPS 2003 256 -0.10(0.70)

WMD (fixed) Weight WMD (fixed) Information Ν Mean (SD) FDPS 2003 250 -0.10(0.70) 100.00 0.00 [-0.12, 0.12] 0.00 [-0.12, 0.12] Subtotal (95% CI) 256 250 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.00 (P = 1.00) 0.00 [-0.12, 0.12] Total (95% CI) 2 Test for heterogeneity: not applicable 250 100.00 256 Test for overall effect: Z = 0.00 (P = 1.00) -0.5 0.5 Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 07 Physical activity and diet vs information
Outcome: 06 Change in total cholesterol in mmol/l at 36 months

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| Study or sub-category                 | N        | Activity and diet<br>Mean (SD) | N   | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---------------------------------------|----------|--------------------------------|-----|--------------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fat     |          |                                |     |                          |                       |             |                       |
| FDPS 2003                             | 231      | -0.10(0.90)                    | 203 | 0.10(0.80)               | <del>-</del> -        | 100.00      | -0.20 [-0.36, -0.04]  |
| Subtotal (95% CI)                     | 231      |                                | 203 |                          | •                     | 100.00      | -0.20 [-0.36, -0.04]  |
| Test for heterogeneity: not appli     | cable    |                                |     |                          |                       |             |                       |
| Test for overall effect: $Z = 2.45$ ( | P = 0.01 |                                |     |                          |                       |             |                       |
| Total (95% CI)                        | 231      |                                | 203 |                          |                       | 100.00      | -0.20 [-0.36, -0.04]  |
| Test for heterogeneity: not appli     | cable    |                                |     |                          | •                     |             |                       |
| Test for overall effect: Z = 2.45 (   | P = 0.01 |                                |     |                          |                       |             |                       |
|                                       |          |                                |     |                          | -1 -0.5 0             | 0.5 1       |                       |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 07 Physical activity and diet vs information
Outcome: 07 Change in HDL cholesterol in mmol/l at 12 months

| Study<br>or sub-category   | N            | Activity and diet<br>Mean (SD) | N   | Information<br>Mean (SD) |        | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------|--------------------------------|-----|--------------------------|--------|--------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fa   | at           |                                |     |                          |        |                    |             |                       |
| FDPS 2003  | 256          | 0.05(0.19)                     | 250 | 0.02(0.17)               |        |                    | 100.00      | 0.03 [0.00, 0.06]     |
| Subtotal (95% CI)  | 256          |                                | 250 |                          |        | ₩                  | 100.00      | 0.03 [0.00, 0.06]     |
| Test for heterogeneity: not app  | plicable     |                                |     |                          |        |                    |             |                       |
| Test for overall effect: Z = 1.87  | 7 (P = 0.06) |                                |     |                          |        |                    |             |                       |
| Total (95% CI) Test for heterogeneity: not app Test for overall effect: Z = 1.87 |              |                                | 250 |                          |        | <b>•</b>           | 100.00      | 0.03 [0.00, 0.06]     |
| Test for overall effect. Z = 1.87  | 7 (P = 0.06) |                                |     |                          |        | <b>.</b>           |             |                       |
|  |              |                                |     | -                        | 1 -0.5 | 0 0.5              | 1           |                       |

Favours control Favours treatment

Favours control Favours treatment

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 07 Physical activity and diet vs information
Outcome: 08 Change in HDL cholesterol in mmol/l at 36 months

| Study or sub-category  | N         | Activity and diet<br>Mean (SD) | N   | Information<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----------|--------------------------------|-----|--------------------------|----|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fat  |           |                                |     |                          |    |                       |             |                       |
| FDPS 2003  | 231       | 0.14(0.20)                     | 203 | 0.11(0.19)               |    |                       | 100.00      | 0.03 [-0.01, 0.07]    |
| Subtotal (95% CI)  | 231       |                                | 203 |                          |    | <b>₩</b>              | 100.00      | 0.03 [-0.01, 0.07]    |
| Test for heterogeneity: not applic   | able      |                                |     |                          |    | ľ                     |             |                       |
| Test for overall effect: Z = 1.60 (F                                       | P = 0.11) |                                |     |                          |    |                       |             |                       |
| Total (95% CI)   | 231       |                                | 203 |                          |    | •                     | 100.00      | 0.03 [-0.01, 0.07]    |
| Test for heterogeneity: not applic<br>Test for overall effect: Z = 1.60 (F |           |                                |     |                          |    |                       |             |                       |
|  |           |                                |     |                          | -1 | -0.5 0 (              | ).5 1       |                       |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 07 Physical activity and diet vs information
Outcome: 09 Change in triglycerides in mmol/l at 12 months

| Study or sub-category  | N   | Activity and diet<br>Mean (SD) | N   | Information<br>Mean (SD) | WMD (fixed)<br>95% CI    | Weight %   | WMD (fixed)<br>95% CI |
|--|-----|--------------------------------|-----|--------------------------|--------------------------|------------|-----------------------|
| 01 600kcal/day deficit or low  | fat |                                |     |                          |                          |            |                       |
| FDPS 2003  | 256 | -0.20(0.60)                    | 250 | 0.00(0.70)               | - <del></del> -          | 100.00     | -0.20 [-0.31, -0.09]  |
| Subtotal (95% CI)  | 256 |                                | 250 |                          | <b>-</b> □               | 100.00     | -0.20 [-0.31, -0.09]  |
| Test for heterogeneity: not a Test for overall effect: $Z = 3$ .             |     | 1                              |     |                          |                          |            |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 3. |     | ı                              | 250 |                          | •                        | 100.00     | -0.20 [-0.31, -0.09]  |
|  |     |                                |     |                          | -1 -0.5 0                | 0.5 1      |                       |
|  |     |                                |     |                          | Favours treatment Favour | rs control |                       |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 07 Physical activity and diet vs information
Outcome: 10 Change in triglycerides in mmol/l at 36 months

| Study or sub-category                          | N               | Activity and diet<br>Mean (SD) | N   | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--|-----------------|--------------------------------|-----|--------------------------|-----------------------|----------|-----------------------|
| 01 600kcal/day deficit or low fa               | at              |                                |     |                          |                       |          |                       |
| FDPS 2003                                      | 231             | -0.10(0.60)                    | 203 | 0.00(0.80)               | <del>-</del>          | 100.00   | -0.10 [-0.23, 0.03]   |
| Subtotal (95% CI)                              | 231             |                                | 203 |                          | •                     | 100.00   | -0.10 [-0.23, 0.03]   |
| Test for heterogeneity: not app                | plicable        |                                |     |                          | _                     |          |                       |
| Test for overall effect: $Z = 1.46$            | 6 (P = 0.15)    |                                |     |                          |                       |          |                       |
| Total (95% CI) Test for heterogeneity: not app | 231<br>plicable |                                | 203 |                          | •                     | 100.00   | -0.10 [-0.23, 0.03]   |
| Test for overall effect: Z = 1.46              | 6 (P = 0.15)    |                                |     |                          |                       |          |                       |
|  |                 |                                |     |                          | 1 -0.5 0 0.5          | i        |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: 07 Physical activity and diet vs information
Outcome: 11 Change in fasting plasma glucose in mmol/l at 12 months

| 01 600kcal/day deficit or low fat  FDPS 2003   | Study or sub-category                | N       | Activity and diet<br>Mean (SD) | N   | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--|--------------------------------------|---------|--------------------------------|-----|--------------------------|-----------------------|----------|-----------------------|
| Subtotal (95% CI) 256 250  | 01 600kcal/day deficit or low fat    |         |                                |     |                          |                       |          |                       |
| Test for heterogeneity: not applicable Test for overall effect: Z = 3.21 (P = 0.001)  Total (95% CI) | FDPS 2003                            | 256     | -0.20(0.70)                    | 250 | 0.00(0.70)               |                       | 100.00   | -0.20 [-0.32, -0.08]  |
| Test for overall effect: Z = 3.21 (P = 0.001)  Total (95% CI)  | Subtotal (95% CI)                    | 256     |                                | 250 |                          | •                     | 100.00   | -0.20 [-0.32, -0.08]  |
| Total (95% CI) 256 250 • 100.00 -0.20 [-0.32, -0.08] Test for heterogeneity: not applicable          | Test for heterogeneity: not applica  | able    |                                |     |                          |                       |          |                       |
| Test for heterogeneity: not applicable   | Test for overall effect: Z = 3.21 (P | = 0.001 | )                              |     |                          |                       |          |                       |
| lest for overall effect: $Z = 3.21$ ( $P = 0.001$ )  |                                      | able    | )                              | 250 |                          | •                     | 100.00   | -0.20 [-0.32, -0.08]  |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 07 Physical activity and diet vs information

Outcome: 12 Change in fasting plasma glucose in mmol/l at 36 months

| Study or sub-category   | N   | Activity and diet<br>Mean (SD) | N   | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|--------------------------------|-----|--------------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fat<br>FDPS 2003  | 231 | 0.00(0.70)                     | 203 | 0.10(0.70)               |                       | 100.00      | -0.10 [-0.23, 0.03]   |
| Subtotal (95% CI)   | 231 | 0.00(0.70)                     | 203 | 0.10(0.70)               | -                     | 100.00      | -0.10 [-0.23, 0.03]   |
| Test for heterogeneity: not applica<br>Test for overall effect: Z = 1.48 (P             |     |                                |     |                          |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not applica Test for overall effect: Z = 1.48 (P |     |                                | 203 |                          |                       | 100.00      | -0.10 [-0.23, 0.03]   |
|   |     |                                |     |                          | -1 -05 0 05           | 1           |                       |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 08 Physical activity and diet vs diet
Outcome: 01 Weight change in kg at 12 months

| Study or sub-category  | N      | Activity and diet<br>Mean (SD)    | N   | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------|-----------------------------------|-----|-------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or le   | ow fat |                                   |     |                   |                       |             |                       |
| ODES 1995  | 65     | -5.60(4.84)                       | 52  | -4.00(5.05)       | <del></del>           | 49.37       | -1.60 [-3.41, 0.21]   |
| Wood 1991a   | 42     | -5.10(5.30)                       | 31  | -4.10(5.50)       | <del></del>           | 25.54       | -1.00 [-3.51, 1.51]   |
| Wood 1991b   | 39     | -8.70(5.70)                       | 40  | -5.10(5.80)       | <del></del>           | 25.09       | -3.60 [-6.14, -1.06]  |
| Subtotal (95% CI)  | 146    |                                   | 123 |                   | •                     | 100.00      | -1.95 [-3.22, -0.68]  |
| Test for heterogeneity: Ch<br>Test for overall effect: Z =             |        | P = 0.31), I <sup>2</sup> = 13.8% |     |                   |                       |             |                       |
| Total (95% CI) Test for heterogeneity: Ch Test for overall effect: Z = |        |                                   | 123 |                   | •                     | 100.00      | -1.95 [-3.22, -0.68]  |
|  |        |                                   |     |                   | -10 -5 0 5            | 10          |                       |

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Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 08 Physical activity and diet vs diet
Outcome: 02 Weight change in kg at 18 months

| Study<br>or sub-category   | N                | Activity and diet<br>Mean (SD) | N  | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------------|--------------------------------|----|-------------------|-----------------------|-------------|-----------------------|
| 01 LCD   |                  |                                |    |                   |                       |             |                       |
| Pavlou 1989 1ab  | 10               | -9.19(8.52)                    | 11 | -3.57(6.93)       | <del></del>           | 16.41       | -5.62 [-12.30, 1.06]  |
| Pavlou 1989 2ab  | 5                | -11.83(9.26)                   | 6  | -5.75(7.54)       | <b>-</b>              | 7.16        | -6.08 [-16.19, 4.03]  |
| Subtotal (95% CI)  | 15               |                                | 17 |                   |                       | 23.57       | -5.76 [-11.34, -0.18] |
| Test for heterogeneity: Chi2 =   | = 0.01, df = 1 ( | $P = 0.94$ , $I^2 = 0\%$       |    |                   |                       |             |                       |
| Test for overall effect: $Z = 2.0$   | 02 (P = 0.04)    |                                |    |                   |                       |             |                       |
| 02 PSMF  |                  |                                |    |                   |                       |             |                       |
| Pavlou 1989 1cd  | 16               | -8.64(8.36)                    | 16 | -1.13(6.23)       | <b>←</b>              | 28.07       | -7.51 [-12.62, -2.40] |
| Pavlou 1989 1ef  | 10               | -9.68(8.65)                    | 13 | -0.93(6.18)       | <del></del>           | 18.30       | -8.75 [-15.08, -2.42] |
| Pavlou 1989 2cd  | 5                | -14.04(9.89)                   | 5  | -7.29(7.98)       | <b>—</b>              | 5.90        | -6.75 [-17.89, 4.39]  |
| Subtotal (95% CI)  | 31               |                                | 34 |                   |                       | 52.28       | -7.86 [-11.60, -4.11] |
| Fest for heterogeneity: $Chi^2 = Chi^2 = Chi^$ |                  |                                |    |                   |                       |             |                       |
| 03 VLCD  |                  |                                |    |                   |                       |             |                       |
| Pavlou 1989 1gh  | 18               | -12.40(9.42)                   | 16 | -3.45(6.89)       | <del></del>           | 24.15       | -8.95 [-14.46, -3.44] |
| Subtotal (95% CI)  | 18               |                                | 16 |                   |                       | 24.15       | -8.95 [-14.46, -3.44] |
| Test for heterogeneity: not a  | pplicable        |                                |    |                   |                       |             |                       |
| Test for overall effect: $Z = 3$ .   | 18 (P = 0.001)   |                                |    |                   |                       |             |                       |
| Fotal (95% CI) Fest for heterogeneity: Chi <sup>2</sup> = Fest for overall effect: Z = 5.5   |                  |                                | 67 |                   | •                     | 100.00      | -7.63 [-10.33, -4.92] |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 08 Physical activity and diet vs diet
Outcome: 03 Weight change in kg at 36 months

WMD (fixed) WMD (fixed) Activity and diet Diet Mean (SD) Weight % Study or sub-category Mean (SD) 95% CI 95% CI 01 LCD -7.42 [-16.97, 2.13] -7.42 [-16.97, 2.13] Pavlou 1989 2ab -10.67(8.93) -3.25(6.83) 54.55 Subtotal (95% CI)
Test for heterogeneity: not applicable 54.55 Test for overall effect: Z = 1.52 (P = 0.13) 02 PSMF Pavlou 1989 2cd -13.00(9.59) -9.17 [-19.63, 1.29] -3.83(7.10) 45.45 Subtotal (95% CI) -9.17 [-19.63, 1.29] Test for heterogeneity: not applicable
Test for overall effect: Z = 1.72 (P = 0.09) 100.00 -8.22 [-15.27, -1.16] Total (95% CI) \$10\$ Test for heterogeneity: Chi² = 0.06, df = 1 (P = 0.81), I² = 0% 11 Test for overall effect: Z = 2.28 (P = 0.02) 10

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 08 Physical activity and diet vs diet
Outcome: 04 Weight change over time

| Study<br>or sub-category | N | Activity and diet<br>Mean (SD) |   | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------|---|--------------------------------|---|-------------------|-----------------------|-------------|-----------------------|
| 01 LCD                   |   |                                |   |                   |                       |             |                       |
| Pavlou 2ab 18 months     | 5 | -11.83(9.26)                   | 6 | -5.75(7.54)       | <b>←</b>              | 47.12       | -6.08 [-16.19, 4.03]  |
| Pavlou 2ab 36 months     | 5 | -10.67(8.93)                   | 6 | -3.25(6.83)       | <del></del>           | 52.88       | -7.42 [-16.97, 2.13]  |
| 02 PSMF                  |   |                                |   |                   |                       |             |                       |
| Pavlou 2cd 18 months     | 5 | -14.04(9.89)                   | 5 | -7.29(7.98)       | <b>←</b>              | 46.85       | -6.75 [-17.89, 4.39]  |
| Pavlou 2cd 36 months     | 5 | -13.00(9.59)                   | 5 | -3.83(7.10)       | <b>—</b>              | 53.15       | -9.17 [-19.63, 1.29]  |

2

PHYSICAL ACTIVITY Analyses for adults Comparison: Outcome:

08 Physical activity and diet vs diet
05 Change in total cholesterol in mmol/l at 12 months

| Study or sub-category  | N     | Activity and diet<br>Mean (SD)    | N   | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------|-----------------------------------|-----|-------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo                                   | w fat |                                   |     |                   |                       |             |                       |
| ODES 1995  | 65    | -0.48(0.89)                       | 52  | -0.23(0.65)       | <b>=</b>              | 34.66       | -0.25 [-0.53, 0.03]   |
| Wood 1991a   | 42    | -0.28(0.52)                       | 31  | -0.39(0.61)       | <b>.</b>              | 38.17       | 0.11 [-0.16, 0.38]    |
| Wood 1991b   | 39    | -0.38(0.87)                       | 40  | -0.42(0.51)       | <b>+</b>              | 27.17       | 0.04 [-0.28, 0.36]    |
| Subtotal (95% CI)  | 146   |                                   | 123 |                   | <b>.</b>              | 100.00      | -0.03 [-0.20, 0.13]   |
| Test for heterogeneity: Chir<br>Test for overall effect: Z = 0 |       | P = 0.16), I <sup>2</sup> = 44.9% |     |                   |                       |             |                       |
| Total (95% CI)   | 146   | D 0.46\ 13 44.00/                 | 123 |                   | •                     | 100.00      | -0.03 [-0.20, 0.13]   |
| Test for heterogeneity: Chir<br>Test for overall effect: Z = 0 |       | P = 0.16), I <sup>2</sup> = 44.9% |     |                   |                       |             |                       |
|  |       |                                   |     | =                 | 10 -5 0 5             | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults Review: Comparison:

08 Physical activity and diet vs diet
06 Change in total cholesterol in mmol/l at 12 weeks Outcome:

| Study or sub-category   | N       | Activity and diet<br>Mean (SD) | N  | Diet<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|---------|--------------------------------|----|-------------------|--------|-----------------------|-------------|-----------------------|
| 01 Mixed diet   |         |                                |    |                   |        |                       |             |                       |
| Pavlou 1989 1   | 54      | -0.40(0.73)                    | 56 | -0.40(0.75)       |        |                       | 100.00      | 0.00 [-0.28, 0.28]    |
| Subtotal (95% CI)   | 54      |                                | 56 |                   |        | ▼                     | 100.00      | 0.00 [-0.28, 0.28]    |
| Test for heterogeneity: not applical  | ole     |                                |    |                   |        |                       |             |                       |
| Test for overall effect: Z = 0.00 (P =  | = 1.00) |                                |    |                   |        |                       |             |                       |
| Total (95% CI)  | 54      |                                | 56 |                   |        | •                     | 100.00      | 0.00 [-0.28, 0.28]    |
| Test for heterogeneity: not applicated Test for overall effect: Z = 0.00 (P = 0.00) |         |                                |    |                   |        |                       |             |                       |
|   |         |                                |    |                   | -10 -5 | 0 5                   | 10          |                       |

Review: PHYSICAL ACTIVITY Analyses for adults Comparison:

08 Physical activity and diet vs diet 07 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category   | N                       | Activity and diet<br>Mean (SD)    | N   | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------------------------|-----------------------------------|-----|-------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo                                  | w fat                   |                                   |     |                   |                       |             |                       |
| ODES 1995   | 65                      | -0.39(0.81)                       | 52  | -0.18(0.72)       | <b>=</b>              | 32.64       | -0.21 [-0.49, 0.07]   |
| Wood 1991a  | 42                      | -0.29(0.46)                       | 31  | -0.28(0.63)       | <b>.</b>              | 36.70       | -0.01 [-0.27, 0.25]   |
| Wood 1991b  | 39                      | -0.27(0.78)                       | 40  | -0.39(0.48)       | <b>=</b>              | 30.66       | 0.12 [-0.17, 0.41]    |
| Subtotal (95% CI)   | 146                     |                                   | 123 |                   | •                     | 100.00      | -0.04 [-0.19, 0.12]   |
| Test for heterogeneity: Chi                                   | $^{2}$ = 2.69, df = 2 ( | P = 0.26), I <sup>2</sup> = 25.5% |     |                   | Ĭ                     |             |                       |
| Test for overall effect: Z = 0                                | 0.44 (P = 0.66)         | ,                                 |     |                   |                       |             |                       |
| Total (95% CI)  | 146                     |                                   | 123 |                   | •                     | 100.00      | -0.04 [-0.19, 0.12]   |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = 0 |                         | P = 0.26), I <sup>2</sup> = 25.5% |     |                   |                       |             |                       |
|   |                         |                                   |     |                   | 10 -5 0 5             | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome:

08 Physical activity and diet vs diet
08 Change in HDL cholesterol in mmol/l at 12 months

| Study<br>or sub-category                                   | N                                 | Activity and diet<br>Mean (SD) | N   | Diet<br>Mean (SD) |     |    | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----------------------------------|--------------------------------|-----|-------------------|-----|----|----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo                               | ow fat                            |                                |     |                   |     |    |                      |             |                       |
| ODES 1995  | 65                                | 0.13(0.15)                     | 52  | 0.05(0.12)        |     |    |                      | 62.03       | 0.08 [0.03, 0.13]     |
| Wood 1991a   | 42                                | 0.02(0.18)                     | 31  | -0.15(0.26)       |     |    | <b>.</b>             | 13.09       | 0.17 [0.06, 0.28]     |
| Wood 1991b   | 39                                | 0.14(0.18)                     | 40  | 0.02(0.17)        |     |    |                      | 24.88       | 0.12 [0.04, 0.20]     |
| Subtotal (95% CI)  | 146                               |                                | 123 |                   |     |    | l)                   | 100.00      | 0.10 [0.06, 0.14]     |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |                                   |                                |     |                   |     |    |                      |             |                       |
| Total (95% CI)   | 146                               |                                | 123 |                   |     |    |                      | 100.00      | 0.10 [0.06, 0.14]     |
| Test for heterogeneity: Ch<br>Test for overall effect: Z = |                                   |                                |     |                   |     |    |                      |             |                       |
|  |                                   |                                |     |                   | -10 | -5 | 0                    | 5 10        |                       |
|  | Favours control Favours treatment |                                |     |                   |     |    |                      |             |                       |

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PHYSICAL ACTIVITY Analyses for adults Comparison:

08 Physical activity and diet vs diet 09 Change in HDL cholesterol in mmol/l at 12 weeks Outcome:

| Study or sub-category          | N                | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|------------------|------------------------|----|----------------------|-----|-----------------------|-------------|-----------------------|
| 01 Mixed diet                  |                  |                        |    |                      |     |                       |             |                       |
| Pavlou 1989 1                  | 54               | -0.20(0.15)            | 56 | -0.10(0.15)          |     |                       | 100.00      | -0.10 [-0.16, -0.04]  |
| Subtotal (95% CI)              | 54               |                        | 56 |                      |     | T                     | 100.00      | -0.10 [-0.16, -0.04]  |
| Test for heterogeneity: not a  | applicable       |                        |    |                      |     | 1                     |             |                       |
| Test for overall effect: Z = 3 | .50 (P = 0.0005) | ı                      |    |                      |     |                       |             |                       |
| Total (95% CI)                 | 54               |                        | 56 |                      |     |                       | 100.00      | -0.10 [-0.16, -0.04]  |
| Test for heterogeneity: not a  | applicable       |                        |    |                      |     | 1                     |             |                       |
| Test for overall effect: Z = 3 | .50 (P = 0.0005) | 1                      |    |                      |     |                       |             |                       |
|                                |                  |                        |    |                      | -10 | -5 0                  | 5 10        |                       |

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults Review: Comparison: 08 Physical activity and diet vs diet

1

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4

10 Change in triglycerides in mmol/l at 12 weeks Outcome:

| Study or sub-category   | N       | Activity and diet<br>Mean (SD)    | N  | Diet<br>Mean (SD) |     |    | MD (fixed)<br>95% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|---------|-----------------------------------|----|-------------------|-----|----|----------------------|---|-------------|-----------------------|
| 01 Mixed diet   |         |                                   |    |                   |     |    |                      |   |             |                       |
| Pavlou 1989 1   | 54      | -0.33(0.73)                       | 56 | -0.48(1.50)       |     |    |                      |   | 100.00      | 0.15 [-0.29, 0.59]    |
| Subtotal (95% CI)   | 54      |                                   | 56 |                   |     |    | •                    |   | 100.00      | 0.15 [-0.29, 0.59]    |
| Test for heterogeneity: not applica   | able    |                                   |    |                   |     |    | ſ                    |   |             |                       |
| Test for overall effect: $Z = 0.67$ (P  | = 0.50) |                                   |    |                   |     |    |                      |   |             |                       |
| Fotal (95% CI) Fest for heterogeneity: not applica Fest for overall effect: Z = 0.67 (P |         |                                   | 56 |                   |     |    | •                    |   | 100.00      | 0.15 [-0.29, 0.59]    |
| <u> </u>  |         |                                   |    |                   | -10 | -5 | 0                    | 5 | 10          |                       |
|   |         | Favours treatment Favours control |    |                   |     |    |                      |   |             |                       |

PHYSICAL ACTIVITY Analyses for adults Review: Comparison: 08 Physical activity and diet vs diet Outcome: 11 Change in triglycerides in mmol/l at 12 months

Activity and diet WMD (fixed) Weight WMD (fixed) or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI % 95% CI 01 600kcal/day deficit or low fat ODES 1995 65 -0.58(0.97) 52 -0.23(1.01) 11.96 -0.35 [-0.71, 0.01] -0.11 [-0.26, 0.04] -0.36 [-0.66, -0.06] -0.18 [-0.31, -0.06] -0.02(0.26) -0.48(0.75) 31 40 0.09(0.36) 70.41 17.63 Wood 1991a 42 39 Wood 1991b Subtotal (95% CI) Test for heterogeneity: Chi² = 3.09, df = 2 (P = 0.21),  $l^2$  = 35.3% Test for overall effect: Z = 2.86 (P = 0.004) -0.18 [-0.31, -0.06] Total (95% CI) \$146\$ Test for heterogeneity: Chi² = 3.09, df = 2 (P = 0.21), I² = 35.3% 123 100.00 Test for overall effect: Z = 2.86 (P = 0.004)

-10

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults Comparison: Outcome: 08 Physical activity and diet vs diet 12 Change in DBP in mmHg at 6 months

| Study or sub-category        | N                | Activity and diet<br>Mean (SD) | N  | Diet<br>Mean (SD) |      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|------------------|--------------------------------|----|-------------------|------|-----------------------|-------------|-----------------------|
| 01 Mixed diet                |                  |                                |    |                   |      |                       |             |                       |
| Pavlou 1989 1                | 54               | -11.50(8.30)                   | 56 | -2.70(8.30)       | ┫——  |                       | 100.00      | -8.80 [-11.90, -5.70] |
| Subtotal (95% CI)            | 54               |                                | 56 |                   |      |                       | 100.00      | -8.80 [-11.90, -5.70] |
| Test for heterogeneity: not  | applicable       |                                |    |                   | _    |                       |             |                       |
| Test for overall effect: Z = | 5.56 (P < 0.0000 | 1)                             |    |                   |      |                       |             |                       |
| Total (95% CI)               | 54               |                                | 56 |                   |      |                       | 100.00      | -8.80 [-11.90, -5.70] |
| Test for heterogeneity: not  | applicable       |                                |    |                   |      |                       |             |                       |
| Test for overall effect: Z = |                  | 1)                             |    |                   |      |                       |             |                       |
| •                            |                  |                                |    |                   | 10 7 |                       | 10          |                       |

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 08 Physical activity and diet vs diet
Outcome: 13 Change in SBP in mmHd at 6 months

| Study or sub-category   | N               | Activity and diet<br>Mean (SD) | N  | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------------|--------------------------------|----|-------------------|-----------------------|-------------|-----------------------|
| 01 Mixed diet   |                 |                                |    |                   |                       |             |                       |
| Pavlou 1989 1   | 54              | -6.30(12.70)                   | 56 | -3.90(12.70)      | <del></del>           | 100.00      | -2.40 [-7.15, 2.35]   |
| Subtotal (95% CI)   | 54              |                                | 56 |                   |                       | 100.00      | -2.40 [-7.15, 2.35]   |
| Test for heterogeneity: not   | applicable      |                                |    |                   |                       |             |                       |
| Test for overall effect: Z = 0  | 0.99 (P = 0.32) |                                |    |                   |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |                 |                                | 56 |                   |                       | 100.00      | -2.40 [-7.15, 2.35]   |
|   |                 |                                |    |                   | -10 -5 0              | 5 10        |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 08 Physical activity and diet vs diet
Outcome: 14 Change in DBP in mmHg at 12 months

| Study or sub-category        | N                        | Activity and diet<br>Mean (SD)    | N   | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|--------------------------|-----------------------------------|-----|-------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo | ow fat                   |                                   |     |                   |                       |             |                       |
| ODES 1995                    | 65                       | -5.20(7.26)                       | 52  | -3.40(7.21)       | <del></del>           | 29.39       | -1.80 [-4.44, 0.84]   |
| Wood 1991a                   | 42                       | -2.00(4.10)                       | 31  | -2.20(5.10)       | _ <del>_</del> _      | 42.93       | 0.20 [-1.98, 2.38]    |
| Wood 1991b                   | 39                       | -4.90(5.70)                       | 40  | -2.40(6.60)       | <del></del>           | 27.68       | -2.50 [-5.22, 0.22]   |
| Subtotal (95% CI)            | 146                      |                                   | 123 |                   |                       | 100.00      | -1.14 [-2.56, 0.29]   |
| Test for heterogeneity: Chi  | $i^2 = 2.65$ , df = 2 (I | P = 0.27), I <sup>2</sup> = 24.6% |     |                   | 9                     |             |                       |
| Test for overall effect: Z = | 1.56 (P = 0.12)          | ,                                 |     |                   |                       |             |                       |
| Total (95% CI)               | 146                      |                                   | 123 |                   |                       | 100.00      | -1.14 [-2.56, 0.29]   |
| Test for heterogeneity: Chi  | $i^2 = 2.65$ , df = 2 (I | P = 0.27), I <sup>2</sup> = 24.6% |     |                   | -                     |             |                       |
| Test for overall effect: Z = | 1.56 (P = 0.12)          |                                   |     |                   |                       |             |                       |
| -                            |                          |                                   |     | -                 | 10 -5 0 5             | 10          |                       |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 08 Physical activity and diet vs diet
Outcome: 15 Change in DBP in mmHg at 18 months

| Study or sub-category  | N              | Activity and diet<br>Mean (SD) | N  | Diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI  |
|--|----------------|--------------------------------|----|-------------------|-----|-----------------------|-------------|------------------------|
| 01 Mixed diet  |                |                                |    |                   |     |                       |             |                        |
| Pavlou 1989 1  | 54             | -10.40(8.30)                   | 56 | 1.70(8.30)        | ←   |                       | 100.00      | -12.10 [-15.20, -9.00] |
| Subtotal (95% CI)  | 54             |                                | 56 |                   | -   |                       | 100.00      | -12.10 [-15.20, -9.00] |
| Test for heterogeneity: not a                                    | pplicable      |                                |    |                   |     |                       |             |                        |
| Test for overall effect: Z = 7.                                  | 64 (P < 0.0000 | 01)                            |    |                   |     |                       |             |                        |
| Total (95% CI)   | 54             |                                | 56 |                   | -   |                       | 100.00      | -12.10 [-15.20, -9.00] |
| Test for heterogeneity: not a<br>Test for overall effect: Z = 7. |                | 01)                            |    |                   |     |                       |             |                        |
|  |                |                                |    |                   | -10 | -5 0 5                | 10          |                        |

Review: PHYSICAL ACTIVITY Analyses for adults
Comparison: 08 Physical activity and diet vs diet
Outcome: 16 Change in SBP in mmHg at 12 months

| Study or sub-category        | N                          | Activity and diet<br>Mean (SD) | N   | Diet<br>Mean (SD) |     | WMD (fix<br>95% C |                | WMD (fixed)<br>95% CI |
|------------------------------|----------------------------|--------------------------------|-----|-------------------|-----|-------------------|----------------|-----------------------|
| 01 600kcal/day deficit or lo | ow fat                     |                                |     |                   |     |                   |                |                       |
| ODES 1995                    | 65                         | -5.90(8.87)                    | 52  | -6.40(10.10)      |     |                   | 31.61          | 0.50 [-2.99, 3.99]    |
| Wood 1991a                   | 42                         | -3.60(7.70)                    | 31  | -4.10(6.00)       |     |                   | 38.97          | 7 0.50 [-2.64, 3.64]  |
| Wood 1991b                   | 39                         | -5.40(8.30)                    | 40  | -4.10(8.10)       |     |                   | <b>-</b> 29.43 | 3 -1.30 [-4.92, 2.32] |
| Subtotal (95% CI)            | 146                        |                                | 123 |                   |     |                   | 100.00         | -0.03 [-1.99, 1.93]   |
| Test for heterogeneity: Chi  | $i^2 = 0.67$ , $df = 2$ (F | P = 0.71), I <sup>2</sup> = 0% |     |                   |     | T                 |                |                       |
| Test for overall effect: Z = | 0.03 (P = 0.98)            |                                |     |                   |     |                   |                |                       |
| Total (95% CI)               | 146                        |                                | 123 |                   |     |                   | 100.00         | 0 -0.03 [-1.99, 1.93] |
| Test for heterogeneity: Chi  | $i^2 = 0.67$ , $df = 2$ (F | P = 0.71), I <sup>2</sup> = 0% |     |                   |     | Ī                 |                |                       |
| Test for overall effect: Z = | 0.03 (P = 0.98)            | •                              |     |                   |     |                   |                |                       |
|                              |                            |                                |     |                   | -10 | -5 0              | 5 10           |                       |

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PHYSICAL ACTIVITY Analyses for adults 08 Physical activity and diet vs diet 17 Change in SBP in mmHg at 18 months Comparison: Outcome:

| Study or sub-category        | N                | Activity and diet<br>Mean (SD) | N  | Diet<br>Mean (SD) |             | ID (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|------------------|--------------------------------|----|-------------------|-------------|----------------------|-------------|-----------------------|
| 01 Mixed diet                |                  |                                |    |                   |             |                      |             |                       |
| Pavlou 1989 1                | 54               | -7.70(12.70)                   | 56 | 1.20(12.70)       | <del></del> |                      | 100.00      | -8.90 [-13.65, -4.15] |
| Subtotal (95% CI)            | 54               |                                | 56 |                   |             |                      | 100.00      | -8.90 [-13.65, -4.15] |
| Test for heterogeneity: not  | applicable       |                                |    |                   |             |                      |             |                       |
| Test for overall effect: Z = | 3.67 (P = 0.0002 | )                              |    |                   |             |                      |             |                       |
| Total (95% CI)               | 54               |                                | 56 |                   |             |                      | 100.00      | -8.90 [-13.65, -4.15] |
| Test for heterogeneity: not  | applicable       |                                |    |                   |             |                      |             |                       |
| Test for overall effect: Z = |                  | )                              |    |                   |             |                      |             |                       |
|                              |                  |                                |    |                   | -10 -5      | 0 5                  | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

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Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults Comparison:

08 Physical activity and diet vs diet
18 Change in fasting plasma glucose in mmol/l at 12 months Outcome:

| Study or sub-category  | N            | Activity and diet<br>Mean (SD) | N  | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------|--------------------------------|----|-------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fa   | at           |                                |    |                   |                       |             |                       |
| ODES 1995  | 65           | -0.26(0.64)                    | 52 | -0.21(0.50)       |                       | 100.00      | -0.05 [-0.26, 0.16]   |
| Subtotal (95% CI)  | 65           |                                | 52 |                   | ▼                     | 100.00      | -0.05 [-0.26, 0.16]   |
| Test for heterogeneity: not app  | olicable     |                                |    |                   |                       |             |                       |
| Test for overall effect: Z = 0.47  | 7 (P = 0.64) |                                |    |                   |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not app Test for overall effect: Z = 0.43 |              |                                | 52 |                   | <b>†</b>              | 100.00      | -0.05 [-0.26, 0.16]   |

Review:

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) 01 Weight change in kg at 6 months Comparison:

Outcome:

| Study or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |     | WMD (fixed<br>95% CI | d) | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|--------------------|----|--------------------------|-----|----------------------|----|-------------|-----------------------|
| Wing 1998  | 33 | -2.10(4.20)        | 32 | -1.50(2.70)              |     | +                    |    | 100.00      | -0.60 [-2.31, 1.11]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                    | 32 |                          |     | •                    |    | 100.00      | -0.60 [-2.31, 1.11]   |
|  |    |                    |    |                          | -10 | -5 0                 | 5  | 10          |                       |

Review: Comparison:

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) 02 Weight change in kg at 12 months Outcome:

| Study or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |     |    | (fixed)<br>6 CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|--------------------|----|--------------------------|-----|----|-----------------|---|-------------|-----------------------|
| Wing 1998  | 28 | -0.40(4.80)        | 29 | -0.30(4.50)              |     | -  | -               |   | 100.00      | -0.10 [-2.52, 2.32]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                    | 29 |                          |     |    |                 |   | 100.00      | -0.10 [-2.52, 2.32]   |
|  |    |                    |    |                          | -10 | -5 | 5               | 5 | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 09 Physical activity and BT vs information (passive BT)

03 Weight change in kg at 24 months Outcome:

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |       |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|-------|-------------|----------------------|-------------|-----------------------|
| Wing 1998   | 31 | 1.00(4.70)         | 31 | -0.30(4.50)              |       |             | +-                   | 100.00      | 1.30 [-0.99, 3.59]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 31 |                          |       |             |                      | 100.00      | 1.30 [-0.99, 3.59]    |
|   |    |                    |    |                          | -10   | -5          | 0 5                  | 10          |                       |
|   |    |                    |    |                          | Favou | ırs treatme | nt Favours co        | ntrol       |                       |

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PHYSICAL ACTIVITY Analyses for adults

09 Physical activity and BT vs information (passive BT) Comparison:

04 Weight change over time Outcome:

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| Study or sub-category | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |     |    | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|--------------------|----|--------------------------|-----|----|----------------------|-------------|-----------------------|
| Wing 1998 6 months    | 33 | -2.10(4.20)        | 32 | -1.50(2.70)              |     | _  | _                    | 48.56       | -0.60 [-2.31, 1.11]   |
| Wing 1998 12 months   | 28 | -0.40(4.80)        | 29 | -0.30(4.50)              |     | _  | <del>_</del>         | 24.34       | -0.10 [-2.52, 2.32]   |
| Wing 1998 24 months   | 31 | 1.00(4.70)         | 31 | -0.30(4.50)              |     |    | <del> </del>         | 27.10       | 1.30 [-0.99, 3.59]    |
|                       |    |                    |    |                          | -10 | -5 | 0 5                  | 10          |                       |

Favours treatment Favours control

Review:

PHYSICAL ACTIVITY Analyses for adults
09 Physical activity and BT vs information (passive BT) Comparison: 05 Change in total cholesterol in mmol/l at 6 months

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|------|-----------------------|-------------|-----------------------|
| Wing 1998   | 33 | 0.12(0.72)         | 32 | 0.12(0.50)               |      | _ <del>-</del>        | 100.00      | 0.00 [-0.30, 0.30]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 32 |                          |      |                       | 100.00      | 0.00 [-0.30, 0.30]    |
|   |    |                    |    |                          | -1 - | 0.5 0 0.5             | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Review:

Comparison: Outcome: 06 Change in total cholesterol in mmol/l at 12 months

| Study or sub-category  | N     | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------|--------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| Wing 1998  | 28    | 0.36(0.82)         | 29 | 0.39(0.70)               | -+-                   | 100.00      | -0.03 [-0.43, 0.37]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = | • • • |                    | 29 |                          |                       | 100.00      | -0.03 [-0.43, 0.37]   |
|  |       |                    |    |                          | -1 -05 0 05           | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

09 Physical activity and BT vs information (passive BT) Comparison: Outcome: 07 Change in total cholesterol in mmol/l at 24 months

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| Wing 1998   | 31 | 0.33(0.64)         | 31 | 0.18(0.53)               | -                     | 100.00      | 0.15 [-0.14, 0.44]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 31 |                          |                       | 100.00      | 0.15 [-0.14, 0.44]    |
|   |    |                    |    | <u> </u>                 | 1 05 0 05             | 1           | <u> </u>              |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 09 Physical activity and BT vs information (passive BT) Outcome: 08 Change in LDL cholesterol in mmol/l at 6 months

| Study or sub-category                     | N                   | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight %     | WMD (fixed)<br>95% CI |
|---|---------------------|--------------------|----|--------------------------|-----------------------|--------------|-----------------------|
| Wing 1998                                 | 33                  | 0.03(0.52)         | 32 | 0.08(0.46)               | -                     | 100.00       | -0.05 [-0.29, 0.19]   |
| Total (95% CI) Test for heterogeneity: no | 33<br>ot applicable |                    | 32 |                          | -                     | 100.00       | -0.05 [-0.29, 0.19]   |
| Test for overall effect: Z =              |                     |                    |    |                          | 1 -0.5 0 0.5          | <del> </del> |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 09 Physical activity and BT vs information (passive BT) 09 Change in LDL cholesterol in mmol/l at 12 months Outcome:

| Study<br>or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |    |                      | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|----|----------------------|----------------------|-------------|-----------------------|
| Wing 1998   | 28 | 0.15(0.54)         | 29 | 0.24(0.66)               |    | -                    | _                    | 100.00      | -0.09 [-0.40, 0.22]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 29 |                          |    | •                    |                      | 100.00      | -0.09 [-0.40, 0.22]   |
|   |    |                    |    |                          | -1 | -0.5<br>urs treatmei | 0 0.5                | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Comparison: 10 Change in LDL cholesterol on mmol/l at 24 months Outcome:

| Study or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|--------------------|----|--------------------------|------|-----------------------|-------------|-----------------------|
| Wing 1998  | 31 | 0.22(0.61)         | 31 | 0.03(0.46)               |      | +                     | 100.00      | 0.19 [-0.08, 0.46]    |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                    | 31 |                          |      |                       | 100.00      | 0.19 [-0.08, 0.46]    |
| -  |    |                    |    |                          | -1 . | 0.5 0 0               | 5 1         |                       |

Favours treatment Favours control

Favours control Favours treatment

Favours control Favours treatment

Favours control Favours treatment

Favours treatment Favours control

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PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) 11 Change in HDL cholesterol in mmol/l at 6 months Comparison: Outcome:

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |    |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|----|------|-----------------|-------------|-----------------------|
| Wing 1998   | 33 | 0.02(0.16)         | 32 | -0.02(0.11)              |    |      | -               | 100.00      | 0.04 [-0.03, 0.11]    |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 1 |    |                    | 32 |                          |    |      | •               | 100.00      | 0.04 [-0.03, 0.11]    |
|   |    |                    |    |                          | -1 | -0.5 | 0 0.5           | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) 12 Change in HDL cholesterol in mmol/l at 12 months Comparison:

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|----|-----------------------|-------------|-----------------------|
| Wing 1998   | 28 | 0.16(0.18)         | 29 | 0.08(0.16)               |    | =                     | 100.00      | 0.08 [-0.01, 0.17]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 29 |                          |    | •                     | 100.00      | 0.08 [-0.01, 0.17]    |
|   |    |                    |    |                          | -1 | -0.5 0 0.             | 5 1         |                       |

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT)

Comparison: 13 Change in HDL cholesterol in mmol/l at 24 months

| Study<br>or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |    |      | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|----|------|----------------------|-------------|-----------------------|
| Wing 1998   | 31 | 0.05(0.17)         | 31 | 0.04(0.24)               |    |      | +                    | 100.00      | 0.01 [-0.09, 0.11]    |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0 |    |                    | 31 |                          |    |      | <b>†</b>             | 100.00      | 0.01 [-0.09, 0.11]    |
|   |    |                    |    |                          | -1 | -0.5 | 0 0.5                | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Review: Comparison:

Outcome: 14 Change in triglycerides in mmol/l at 6 months

| Study or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|--------------------|----|--------------------------|------|-----------------------|-------------|-----------------------|
| Wing 1998  | 33 | 0.12(1.64)         | 32 | 0.29(0.32)               | _    | -                     | 100.00      | -0.17 [-0.74, 0.40]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                    | 32 |                          |      |                       | 100.00      | -0.17 [-0.74, 0.40]   |
|  |    |                    |    |                          | -1 - | 0.5 0 0.5             | 1           |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Comparison: Outcome: 15 Change in triglycerides in mmol/l at 12 months

| Study<br>or sub-category  | N   | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |   | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|--------------------|----|--------------------------|---|-----------------------|-------------|-----------------------|
| Wing 1998   | 28  | 0.26(2.19)         | 29 | 0.40(1.25)               | - | -                     | 100.00      | -0.14 [-1.07, 0.79]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: 7 – ( | • • |                    | 29 |                          |   |                       | 100.00      | -0.14 [-1.07, 0.79]   |

PHYSICAL ACTIVITY Analyses for adults

09 Physical activity and BT vs information (passive BT) Comparison: 16 Change in triglycerides in mmol/l at 24 months Outcome:

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |    |      | ID (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|----|------|----------------------|-------------|-----------------------|
| Wing 1998   | 31 | 0.33(1.46)         | 31 | 0.52(1.14)               | _  | -    |                      | 100.00      | -0.19 [-0.84, 0.46]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 31 |                          | _  |      |                      | 100.00      | -0.19 [-0.84, 0.46]   |
|   |    |                    |    |                          | -1 | -0.5 | 0 0.5                | 1           |                       |

Favours treatment Favours control

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Favours treatment Favours control

Favours control

Favours treatment

PHYSICAL ACTIVITY Analyses for adults

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09 Physical activity and BT vs information (passive BT)
17 Change in fasting plasma glucose in mmol/l at 6 months Comparison: Outcome:

Study PA+BT WMD (fixed) Weight WMD (fixed) Information or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Wing 1998 33 0.00(0.70) 32 0.10(0.50) 100.00 -0.10 [-0.40, 0.20] 32 -0.10 [-0.40, 0.20] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.66 (P = 0.51) -0.5 0 0.5

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Review: Comparison:

Outcome: 18 Change in fasting plasma glucose in mmol/l at 12 months

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |    | WMD (fixe<br>95% Cl |          | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|----|---------------------|----------|-------------|-----------------------|
| Wing 1998   | 28 | 0.10(0.70)         | 29 | 0.00(0.60)               |    | -                   |          | 100.00      | 0.10 [-0.24, 0.44]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 29 |                          |    |                     | <b>-</b> | 100.00      | 0.10 [-0.24, 0.44]    |
|   |    |                    |    |                          | -1 | -0.5 0              | 0.5      | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Review:

Comparison: Outcome: 19 Change in fasting plasma glucose in mmol/l at 24 months

| Study or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |  |
|--|----|--------------------|----|--------------------------|----|-----------------------|-------------|-----------------------|--|
| Wing 1998  | 31 | 0.40(0.90)         | 31 | 0.20(0.40)               |    | -                     | 100.00      | 0.20 [-0.15, 0.55]    |  |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                    | 31 |                          |    |                       | 100.00      | 0.20 [-0.15, 0.55]    |  |
|  |    |                    |    |                          | -1 | -0.5 0 0.             | 5 1         |                       |  |

Review: PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT)

Comparison:

Outcome: 20 Change in %HbA1c at 6 months

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |      | WMD (fixed)<br>95% CI |     | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|------|-----------------------|-----|-------------|-----------------------|
| Wing 1998   | 33 | 0.10(0.30)         | 32 | 0.20(0.40)               |      | -                     |     | 100.00      | -0.10 [-0.27, 0.07]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 32 |                          |      |                       |     | 100.00      | -0.10 [-0.27, 0.07]   |
|   |    |                    |    |                          | -1 - | 0.5 0                 | 0.5 |             |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Comparison:

Outcome: 21 Change in %HbA1c at 24 months

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) | WMD (fixed)<br>95% CI          | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|--------------------------------|-------------|-----------------------|
| Wing 1998   | 31 | -0.10(0.50)        | 31 | -0.10(0.30)              | -                              | 100.00      | 0.00 [-0.21, 0.21]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 31 |                          | <b>+</b>                       | 100.00      | 0.00 [-0.21, 0.21]    |
|   |    |                    |    |                          | -1 -0.5 0 0.5                  | 1           |                       |
|   |    |                    |    |                          | Favoure treatment Favoure cont | rol         |                       |

PHYSICAL ACTIVITY Analyses for adults

09 Physical activity and BT vs information (passive BT)
22 Change in DBP in mmHg at 6 months Comparison:

Outcome:

| Study<br>or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |     | WMD (<br>95% |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|-----|--------------|---|-------------|-----------------------|
| Wing 1998   | 33 | -1.70(12.20)       | 32 | -2.20(8.00)              |     | -            | - | 100.00      | 0.50 [-4.50, 5.50]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 32 |                          |     |              | - | 100.00      | 0.50 [-4.50, 5.50]    |
|   |    |                    |    |                          | -10 | -5 0         | 1 | 0           |                       |

Favours treatment Favours control

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PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) 23 Change in DBP in mmHg at 12 months Comparison: Outcome:

Study PA+BT WMD (fixed) Weight WMD (fixed) Information or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Wing 1998 28 0.90(9.70) 29 4.90(8.20) 100.00 -4.00 [-8.67, 0.67] -4.00 [-8.67, 0.67] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 1.68 (P = 0.09) -10 -5 0 5 10

Favours treatment

Favours treatment Favours control

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) 24 Change in DBP in mmHg at 24 months Comparison:

Outcome:

| Study or sub-category   | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |     |    | MD (fixed)<br>95% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|-----|----|----------------------|---|-------------|-----------------------|
| Wing 1998   | 31 | 2.00(8.00)         | 31 | 2.00(8.00)               |     |    | •                    |   | 100.00      | 0.00 [-3.98, 3.98]    |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0 |    |                    | 31 |                          |     |    |                      | , | 100.00      | 0.00 [-3.98, 3.98]    |
|   |    |                    |    |                          | -10 | -5 | Ö                    | 5 | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Review:

Comparison: Outcome: 25 Change in SBP in mmHg at 6 months

| Study<br>or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |     |    | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|-----|----|-----------------|---|-------------|-----------------------|
| Wing 1998   | 33 | -2.40(18.90)       | 32 | -2.00(10.50)             | _   | -  |                 |   | 100.00      | -0.40 [-7.80, 7.00]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |    |                    | 32 |                          |     |    |                 | _ | 100.00      | -0.40 [-7.80, 7.00]   |
|   |    |                    |    |                          | -10 | -5 | Ö               | 5 | 10          |                       |

Review: PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Comparison:

Outcome: 26 Change in SBP in mmHg at 12 months

| Study or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |     | WMD (fix<br>95% ( | , | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|--------------------|----|--------------------------|-----|-------------------|---|-------------|-----------------------|
| Wing 1998  | 28 | 1.10(15.80)        | 29 | 1.10(9.60)               | -   | -                 |   | 100.00      | 0.00 [-6.82, 6.82]    |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0. |    |                    | 29 |                          |     |                   | _ | 100.00      | 0.00 [-6.82, 6.82]    |
|  |    |                    |    |                          | -10 | -5 0              | 5 | 10          |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 09 Physical activity and BT vs information (passive BT) Comparison:

Outcome: 27 Change in SBP in mmHg at 24 months

| Study<br>or sub-category  | N  | PA+BT<br>Mean (SD) | N  | Information<br>Mean (SD) |      |             | MD (fixed)<br>95% CI |         | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|--------------------|----|--------------------------|------|-------------|----------------------|---------|-------------|-----------------------|
| Wing 1998   | 31 | 0.90(13.90)        | 31 | -1.50(12.00)             |      |             | -                    |         | 100.00      | 2.40 [-4.06, 8.86]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                    | 31 |                          |      |             |                      |         | 100.00      | 2.40 [-4.06, 8.86]    |
|   |    |                    |    |                          | -10  | -5          | Ö                    | 5       | 10          |                       |
|   |    |                    |    |                          | Eavo | ire trootmo | nt Envour            | control |             |                       |

PHYSICAL ACTIVITY Analyses for adults

Comparison: 10 Physical activity, diet, and behaviour therapy vs control

01 Weight change in kg at 16 weeks Outcome:

| Study or sub-category   | N                | Combined<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------------------|-----------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lov                                   | w fat            |                       |    |                      |                       |             |                       |
| Ost 1976  | 11               | -9.35(4.47)           | 11 | -3.51(4.04)          | <del></del>           | 100.00      | -5.84 [-9.40, -2.28]  |
| Subtotal (95% CI)   | 11               |                       | 11 |                      |                       | 100.00      | -5.84 [-9.40, -2.28]  |
| Test for heterogeneity: not a                                   | applicable       |                       |    |                      |                       |             |                       |
| Test for overall effect: Z = 3                                  | 3.21 (P = 0.001) |                       |    |                      |                       |             |                       |
| Total (95% CI)  | 11               |                       | 11 |                      |                       | 100.00      | -5.84 [-9.40, -2.28]  |
| Test for heterogeneity: not a<br>Test for overall effect: Z = 3 |                  |                       |    |                      |                       |             |                       |
|   |                  |                       |    |                      | -10 -5 0 5            | 10          |                       |

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 10 Physical activity, diet, and behaviour therapy vs control

Outcome: 02 Weight change in kg at 6 months

1

2

3

Total (95% CI)

| Study<br>or sub-category   | N               | Combined<br>Mean (SD) | N   | Control<br>Mean (SD) |       |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----------------|-----------------------|-----|----------------------|-------|-------------|----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low  | fat             |                       |     |                      |       |             |                      |             |                       |
| TOHP II 2001   | 565             | -4.40(7.16)           | 561 | 0.10(5.94)           |       | -           |                      | 100.00      | -4.50 [-5.27, -3.73]  |
| Subtotal (95% CI)  | 565             |                       | 561 |                      |       | •           |                      | 100.00      | -4.50 [-5.27, -3.73]  |
| Test for heterogeneity: not a  | pplicable       |                       |     |                      |       | •           |                      |             |                       |
| Test for overall effect: $Z = 11$  | 1.48 (P < 0.000 | 01)                   |     |                      |       |             |                      |             |                       |
| Fotal (95% CI) Fest for heterogeneity: not a Fest for overall effect: Z = 11 |                 | 01)                   | 561 |                      |       | •           |                      | 100.00      | -4.50 [-5.27, -3.73]  |
| rest for overall effect. Z = 11  | 1.46 (P < 0.000 | 01)                   |     |                      |       |             |                      |             |                       |
|  |                 |                       |     |                      | -10   | -5          | 0 5                  | 10          |                       |
|  |                 |                       |     |                      | Favou | urs treatme | ent Favours con      | ntrol       |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 10 Physical activity, diet, and behaviour therapy vs control Outcome: 03 Weight change in kg at 12 months

Combined Control WMD (fixed) Weight WMD (fixed) or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI % 95% CI 01 600kcal/day deficit or low fat 11 -4.60(6.20) 11 -2.40(5.30) -2.20 [-7.02, 2.62] 1.45 Ost 1976 545 133 551 125 57.29 36.47 -3.86 [-4.63, -3.09] -4.88 [-5.84, -3.92] **TOHP II 2001** -3.33(6.86) 0.53(6.06) **TONE 1998** -5.36(4.56) -0.48(3.24) Subtotal (95% CI) -4.23 [-4.82, -3.63] Test for heterogeneity: Chi² = 3.33, df = 2 (P = 0.19),  $I^2$  = 40.0% Test for overall effect: Z = 13.93 (P < 0.00001) 02 LCD Jalkanen 1991 -4.00(7.05) 0.00(5.92) -4.00 [-7.65, -0.35] Jeffery 1993 Subtotal (95% CI) -5.87(7.58) -4.36 [-8.22, -0.50] 24 27 -1.51(6.34) 2.26 48 52 4.78 -4.17 [-6.82, -1.52] Test for heterogeneity: Chi<sup>2</sup> = 0.02, df = 1 (P = 0.89),  $I^2$  = 0% Test for overall effect: Z = 3.08 (P = 0.002) -4.22 [-4.80, -3.64]

Favours treatment Favours control

739

PHYSICAL ACTIVITY Analyses for adults Review: Comparison: 10 Physical activity, diet, and behaviour therapy vs control

Test for heterogeneity:  $Chi^2 = 3.35$ , df = 4 (P = 0.50),  $I^2 = 0\%$ Test for overall effect: Z = 14.26 (P < 0.00001)

Outcome: 04 Weight change in kg at 18 months

| Study<br>or sub-category                                      | N      | Combined<br>Mean (SD) | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI       | Weight<br>% | WMD (fixed)<br>95% CI |
|---|--------|-----------------------|-----|----------------------|-----------------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo                                  | ow fat |                       |     |                      |                             |             |                       |
| TOHP I 1992   | 293    | -3.83(6.12)           | 235 | 0.07(4.01)           | -                           | 25.49       | -3.90 [-4.77, -3.03]  |
| TOHP II 2001  | 545    | -2.00(5.80)           | 551 | 0.70(4.20)           | <del>-</del>                | 53.38       | -2.70 [-3.30, -2.10]  |
| TONE 1998   | 131    | -4.77(4.52)           | 122 | -0.21(3.44)          | -                           | 19.78       | -4.56 [-5.55, -3.57]  |
| Subtotal (95% CI)   | 969    |                       | 908 |                      | <b>•</b>                    | 98.65       | -3.38 [-3.82, -2.94]  |
| Test for heterogeneity: Chi<br>Test for overall effect: Z =   |        |                       |     |                      |                             |             |                       |
| 02 LCD  |        |                       |     |                      |                             |             |                       |
| Jeffery 1993  | 24     | -5.55(7.49)           | 27  | -0.62(6.09)          | <del></del>                 | 1.35        | -4.93 [-8.71, -1.15]  |
| Subtotal (95% CI)   | 24     |                       | 27  |                      |                             | 1.35        | -4.93 [-8.71, -1.15]  |
| Γest for heterogeneity: not<br>Γest for overall effect: Z = 2 |        |                       |     |                      |                             |             |                       |
| Total (95% CI)  | 993    |                       | 935 |                      | <b>•</b>                    | 100.00      | -3.40 [-3.84, -2.97]  |
| Test for heterogeneity: Chi<br>Test for overall effect: Z =   |        |                       |     |                      |                             |             |                       |
|   |        |                       |     |                      | -10 -5 0 5                  | 10          |                       |
|   |        |                       |     |                      | Favours treatment Favours c | ontrol      |                       |

100.00

PHYSICAL ACTIVITY Analyses for adults 10 Physical activity, diet, and behaviour therapy vs control 05 Weight change in kg at 24 months Comparison: Outcome:

| Study or sub-category   | N                             | Combined<br>Mean (SD)              | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------------------------------|------------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo  | w fat                         |                                    |     |                      |                       |             |                       |
| TOHP II 2001  | 545                           | -1.22(6.26)                        | 551 | 1.17(6.25)           | <del>-</del>          | 69.81       | -2.39 [-3.13, -1.65]  |
| TONE 1998   | 104                           | -4.58(4.55)                        | 95  | -0.09(3.53)          | -                     | 30.19       | -4.49 [-5.62, -3.36]  |
| Subtotal (95% CI)   | 649                           |                                    | 646 |                      | •                     | 100.00      | -3.02 [-3.64, -2.41]  |
| Test for heterogeneity: Chi   | <sup>2</sup> = 9.32, df = 1 ( | P = 0.002), I <sup>2</sup> = 89.3% |     |                      | •                     |             |                       |
| Test for overall effect: Z = 9  | 9.58 (P < 0.0000              | 01)                                |     |                      |                       |             |                       |
| Total (95% CI) Test for heterogeneity: Chi Test for overall effect: Z = 9 |                               |                                    | 646 |                      | •                     | 100.00      | -3.02 [-3.64, -2.41]  |
|   |                               |                                    |     |                      | -10 -5 0 5            | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review:

PHYSICAL ACTIVITY Analyses for adults 10 Physical activity, diet, and behaviour therapy vs control 06 Weight change in kg at 30 months Comparison:

1

| Study or sub-category        | N                          | Activity<br>Mean (SD)     | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|----------------------------|---------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo | ow fat                     |                           |    |                      |                       |             |                       |
| TONE 1998                    | 60                         | -4.99(4.11)               | 53 | -0.05(4.17)          | <del></del>           | 84.18       | -4.94 [-6.47, -3.41]  |
| Subtotal (95% CI)            | 60                         |                           | 53 |                      | •                     | 84.18       | -4.94 [-6.47, -3.41]  |
| Test for heterogeneity: not  | applicable                 |                           |    |                      |                       |             |                       |
| Test for overall effect: Z = |                            | 1)                        |    |                      |                       |             |                       |
| 02 LCD                       |                            |                           |    |                      |                       |             |                       |
| Jeffery 1993                 | 24                         | -3.05(6.78)               | 27 | 0.25(5.99)           | <del></del>           | 15.82       | -3.30 [-6.83, 0.23]   |
| Subtotal (95% CI)            | 24                         |                           | 27 |                      |                       | 15.82       | -3.30 [-6.83, 0.23]   |
| Test for heterogeneity: not  | applicable                 |                           |    |                      |                       |             |                       |
| Test for overall effect: Z = | 1.83 (P = 0.07)            |                           |    |                      |                       |             |                       |
| Total (95% CI)               | 84                         |                           | 80 |                      | •                     | 100.00      | -4.68 [-6.08, -3.28]  |
| Test for heterogeneity: Ch   | $i^2 = 0.70$ , $df = 1$ (F | $P = 0.40$ ), $I^2 = 0\%$ |    |                      | •                     |             |                       |
| Test for overall effect: Z = | 6.53 (P < 0.0000           | 1)                        |    |                      |                       |             |                       |
| -                            |                            |                           |    |                      | -10 -5 0 5            | 10          |                       |

Review: Comparison:

PHYSICAL ACTIVITY Analyses for adults 10 Physical activity, diet, and behaviour therapy vs control

Outcome: 07 Weight change in kg at 36 months

| Study or sub-category            | N             | Combined<br>Mean (SD) | N   | Control<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|---------------|-----------------------|-----|----------------------|--------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low f  | at            |                       |     |                      |        |                       |             |                       |
| TOHP II 2001                     | 547           | -0.20(5.90)           | 554 | 1.80(5.30)           |        | <b>=</b>              | 100.00      | -2.00 [-2.66, -1.34]  |
| Subtotal (95% CI)                | 547           |                       | 554 |                      |        | <b>▼</b>              | 100.00      | -2.00 [-2.66, -1.34]  |
| Test for heterogeneity: not ap   | plicable      |                       |     |                      |        | `                     |             |                       |
| Test for overall effect: Z = 5.9 | 1 (P < 0.0000 | 1)                    |     |                      |        |                       |             |                       |
| Total (95% CI)                   | 547           |                       | 554 |                      |        | •                     | 100.00      | -2.00 [-2.66, -1.34]  |
| Test for heterogeneity: not ap   | plicable      |                       |     |                      |        | `                     |             |                       |
| Test for overall effect: Z = 5.9 | 1 (P < 0.0000 | 1)                    |     |                      |        |                       |             |                       |
|                                  |               |                       |     |                      | -10 -5 | 0 5                   | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome: 10 Physical activity, diet, and behaviour therapy vs control 08 Weight change over time

| Study<br>or sub-category        | N                | Combined<br>Mean (SD) | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---------------------------------|------------------|-----------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 Ost 1976 - 600kcal/deficit o | or low fat       |                       |     |                      |                       |             |                       |
| Ost 1976 4 months               | 11               | -9.35(4.47)           | 11  | -3.51(4.04)          | <del></del>           | 64.70       | -5.84 [-9.40, -2.28]  |
| Ost 1976 12 months              | 11               | -4.60(6.20)           | 11  | -2.40(5.30)          | <del></del>           | 35.30       | -2.20 [-7.02, 2.62]   |
| 02 TONE 1998 - 600kcal/defic    | cit or low fat   |                       |     |                      |                       |             |                       |
| TONE 12 months                  | 133              | -5.36(4.56)           | 125 | -0.48(3.24)          | -                     | 32.55       | -4.88 [-5.84, -3.92]  |
| TONE 18 months                  | 131              | -4.77(4.52)           | 122 | -0.21(3.44)          | <del></del>           | 30.93       | -4.56 [-5.55, -3.57]  |
| TONE 24 months                  | 104              | -4.58(4.55)           | 95  | -0.09(3.53)          | <del></del>           | 23.69       | -4.49 [-5.62, -3.36]  |
| TONE 30 months                  | 60               | -4.99(4.11)           | 53  | -0.05(4.17)          | -                     | 12.83       | -4.94 [-6.47, -3.41]  |
| 03 TOHP II 2001 - 600kcal/de    | ficit or low fat |                       |     |                      |                       |             |                       |
| TOHP II 6 months                | 565              | -4.40(7.16)           | 561 | 0.10(5.94)           | <del>-</del>          | 16.46       | -4.50 [-5.27, -3.73]  |
| TOHP II 12 months               | 545              | -3.33(6.86)           | 551 | 0.53(6.06)           | -                     | 16.53       | -3.86 [-4.63, -3.09]  |
| TOHP II 18 months               | 545              | -2.00(5.80)           | 551 | 0.70(4.20)           | <del></del>           | 26.97       | -2.70 [-3.30, -2.10]  |
| TOHP II 24 months               | 545              | -1.22(6.26)           | 551 | 1.17(6.25)           | -                     | 17.71       | -2.39 [-3.13, -1.65]  |
| TOHP II 36 months               | 557              | -0.20(5.90)           | 554 | 1.80(5.30)           | +                     | 22.34       | -2.00 [-2.66, -1.34]  |
| 04 Jeffery 1993 - LCD           |                  |                       |     |                      |                       |             |                       |
| Jeffery 1993 12month            | 24               | -5.87(7.58)           | 27  | -1.51(6.34)          | <del></del>           | 45.52       | -4.36 [-8.22, -0.50]  |
| Jeffery 1993 30month            | 24               | -3.05(6.78)           | 27  | 0.25(5.99)           | <del></del>           | 54.48       | -3.30 [-6.83, 0.23]   |

PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome: 10 Physical activity, diet, and behaviour therapy vs control 09 Change in total cholesterol in mmol/l at 12 months

| Study or sub-category           | N              | Combined<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---------------------------------|----------------|-----------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| 01 LCD                          |                |                       |    |                      |    |                       |             |                       |
| Jalkanen 1991                   | 22             | -0.20(1.08)           | 22 | 0.20(1.08)           | ←  | <del>_</del>          | 100.00      | -0.40 [-1.04, 0.24]   |
| Subtotal (95% CI)               | 22             |                       | 22 |                      |    |                       | 100.00      | -0.40 [-1.04, 0.24]   |
| Test for heterogeneity: not a   | pplicable      |                       |    |                      |    |                       |             |                       |
| Test for overall effect: Z = 1. | .23 (P = 0.22) |                       |    |                      |    |                       |             |                       |
| Total (95% CI)                  | 22             |                       | 22 |                      |    |                       | 100.00      | -0.40 [-1.04, 0.24]   |
| Test for heterogeneity: not a   | pplicable      |                       |    |                      |    |                       |             |                       |
| Test for overall effect: Z = 1. | .23 (P = 0.22) |                       |    |                      |    |                       |             |                       |
|                                 |                |                       |    |                      | -1 | -0.5 0 0.5            | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome: 10 Physical activity, diet, and behaviour therapy vs control 10 Change in HDL cholesterol in mmol/l at 12 months

| Study or sub-category            | N             | Combined<br>Mean (SD) | N  | Control<br>Mean (SD) |         | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|---------------|-----------------------|----|----------------------|---------|-----------------------|-------------|-----------------------|
| 01 LCD                           |               |                       |    |                      |         |                       |             |                       |
| Jalkanen 1991                    | 22            | 0.10(0.29)            | 22 | 0.00(0.29)           |         | <del></del>           | 100.00      | 0.10 [-0.07, 0.27]    |
| Subtotal (95% CI)                | 22            |                       | 22 |                      |         | •                     | 100.00      | 0.10 [-0.07, 0.27]    |
| Test for heterogeneity: not ag   | plicable      |                       |    |                      |         | ~                     |             |                       |
| Test for overall effect: Z = 1.1 | 14 (P = 0.25) |                       |    |                      |         |                       |             |                       |
| Total (95% CI)                   | 22            |                       | 22 |                      |         |                       | 100.00      | 0.10 [-0.07, 0.27]    |
| Test for heterogeneity: not ap   | plicable      |                       |    |                      |         | l T                   |             |                       |
| Test for overall effect: Z = 1.1 | 14 (P = 0.25) |                       |    |                      |         |                       |             |                       |
| -                                |               |                       |    |                      | -1 -0.5 | 0 0.5                 | 1           |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults
10 Physical activity, diet, and behaviour therapy vs control Comparison: Outcome: 12 Change in triglycerides in mmol/l at 12 months

| Study or sub-category   | N  | Combined<br>Mean (SD) | N  | Control<br>Mean (SD) | W        | /MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|----------------------|----------|-----------------------|-------------|-----------------------|
| 01 LCD  |    |                       |    |                      |          |                       |             |                       |
| Jalkanen 1991   | 22 | -0.50(0.96)           | 22 | 0.00(0.96)           | <b>←</b> | <del></del>           | 100.00      | -0.50 [-1.07, 0.07]   |
| Subtotal (95% CI)   | 22 |                       | 22 |                      |          |                       | 100.00      | -0.50 [-1.07, 0.07]   |
| Test for heterogeneity: not applica<br>Test for overall effect: Z = 1.73 (P             |    |                       |    |                      |          |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not applica Test for overall effect: Z = 1.73 (P |    |                       | 22 |                      |          |                       | 100.00      | -0.50 [-1.07, 0.07]   |
| -   |    |                       |    |                      | -1 -0.5  | 0 05                  | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults

10 Physical activity, diet, and behaviour therapy vs control 13 Change in DBP in mmHg at 6 months Comparison:

Outcome:

| Study<br>or sub-category           | N              | Combined<br>Mean (SD) | N   | Control<br>Mean (SD) |       |              | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|----------------|-----------------------|-----|----------------------|-------|--------------|----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low      | fat            |                       |     |                      |       |              |                      |             |                       |
| TOHP I 1992                        | 299            | -6.30(6.92)           | 239 | -3.70(6.18)          |       | -            |                      | 100.00      | -2.60 [-3.71, -1.49]  |
| Subtotal (95% CI)                  | 299            |                       | 239 |                      |       | •            |                      | 100.00      | -2.60 [-3.71, -1.49]  |
| Test for heterogeneity: not a      | pplicable      |                       |     |                      |       | -            |                      |             |                       |
| Test for overall effect: $Z = 4.6$ | 60 (P < 0.0000 | 1)                    |     |                      |       |              |                      |             |                       |
| Total (95% CI)                     | 299            |                       | 239 |                      |       | •            |                      | 100.00      | -2.60 [-3.71, -1.49]  |
| Test for heterogeneity: not a      | pplicable      |                       |     |                      |       | •            |                      |             |                       |
| Test for overall effect: $Z = 4.6$ | 60 (P < 0.0000 | 1)                    |     |                      |       |              |                      |             |                       |
|                                    |                |                       |     |                      | -10   | -5           | 0 5                  | 10          |                       |
|                                    |                |                       |     |                      | Favou | urs treatmer | nt Favours           | control     |                       |

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Review: PHYSICAL ACTIVITY Analyses for adults

10 Physical activity, diet, and behaviour therapy vs control 14 Change in DBP in mmHg at 12 months Comparison:

Outcome:

| Study or sub-category   | N                | Combined<br>Mean (SD)          | N   | Control<br>Mean (SD) |         |          | ID (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------------------|--------------------------------|-----|----------------------|---------|----------|---------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo                                  | w fat            |                                |     |                      |         |          |                     |             |                       |
| TOHP I 1992   | 287              | -5.40(8.47)                    | 237 | -3.10(7.70)          |         | -        | -                   | 91.84       | -2.30 [-3.69, -0.91]  |
| Subtotal (95% CI)   | 287              |                                | 237 |                      |         | •        | .                   | 91.84       | -2.30 [-3.69, -0.91]  |
| Test for heterogeneity: not                                   | applicable       |                                |     |                      |         | -        |                     |             |                       |
| Test for overall effect: Z =                                  | 3.25 (P = 0.001) |                                |     |                      |         |          |                     |             |                       |
| 02 LCD  |                  |                                |     |                      |         |          |                     |             |                       |
| Jalkanen 1991   | 24               | -11.00(8.30)                   | 25  | -11.00(8.30)         |         |          | <del>-</del>        | 8.16        | 0.00 [-4.65, 4.65]    |
| Subtotal (95% CI)   | 24               |                                | 25  |                      |         |          |                     | 8.16        | 0.00 [-4.65, 4.65]    |
| Test for heterogeneity: not                                   | applicable       |                                |     |                      |         |          | T                   |             |                       |
| Test for overall effect: Z =                                  | 0.00 (P = 1.00)  |                                |     |                      |         |          |                     |             |                       |
| Total (95% CI)  | 311              |                                | 262 |                      |         |          | •                   | 100.00      | -2.11 [-3.44, -0.78]  |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = 3 |                  | P = 0.35), I <sup>2</sup> = 0% |     |                      |         |          |                     |             |                       |
|   |                  |                                |     |                      | -10     | -5       | 0 5                 | 10          |                       |
|   |                  |                                |     |                      | Favours | treatmen | t Favours cor       | ntrol       |                       |

PHYSICAL ACTIVITY Analyses for adults 10 Physical activity, diet, and behaviour therapy vs control 15 Change in DBP in mmHg at 18 months

Comparison: Outcome:

| Study or sub-category   | N                                     | Combined<br>Mean (SD)             | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|---------------------------------------|-----------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo  | w fat                                 |                                   |     |                      |                       |             |                       |
| TOHP I 1992   | 308                                   | -6.16(5.88)                       | 256 | -3.91(6.12)          | <del></del>           | 34.12       | -2.25 [-3.25, -1.25]  |
| TOHP II 2001  | 533                                   | -4.50(6.10)                       | 525 | -3.20(5.80)          |                       | 65.88       | -1.30 [-2.02, -0.58]  |
| Subtotal (95% CI)   | 841                                   |                                   | 781 |                      | •                     | 100.00      | -1.62 [-2.21, -1.04]  |
| Test for heterogeneity: Chi   | $i^2 = 2.30$ , df = 1 (               | P = 0.13), I <sup>2</sup> = 56.5% |     |                      | ·                     |             |                       |
| Test for overall effect: Z =  | 5.47 (P < 0.0000                      | 1)                                |     |                      |                       |             |                       |
| Total (95% CI) Test for heterogeneity: Chi Test for overall effect: Z = : |                                       | , ,                               | 781 |                      | •                     | 100.00      | -1.62 [-2.21, -1.04]  |
|   | · · · · · · · · · · · · · · · · · · · |                                   |     | -                    | 10 -5 0 5             | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults 10 Physical activity, diet, and behaviour therapy vs control 16 Change in DBP in mmHg at 36 months Review: Comparison:

Outcome:

| Study or sub-category                              | N       | Combined<br>Mean (SD) | N   | Control<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------|-----------------------|-----|----------------------|-------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fat                  |         |                       |     |                      |       |                       |             |                       |
| TOHP II 2001                                       | 527     | -3.20(6.50)           | 514 | -2.40(7.00)          |       | -                     | 100.00      | -0.80 [-1.62, 0.02]   |
| Subtotal (95% CI)                                  | 527     |                       | 514 |                      |       |                       | 100.00      | -0.80 [-1.62, 0.02]   |
| Test for heterogeneity: not applica                | ble     |                       |     |                      |       | 1                     |             |                       |
| Test for overall effect: Z = 1.91 (P               | = 0.06) |                       |     |                      |       |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not applica |         |                       | 514 |                      |       | •                     | 100.00      | -0.80 [-1.62, 0.02]   |
| Test for overall effect: Z = 1.91 (P               | = 0.06) |                       |     |                      |       |                       |             |                       |
|  |         |                       |     |                      | 10 -5 | 0 5                   | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults

| Study<br>or sub-category                                    | N                | Combined<br>Mean (SD) | N   | Control<br>Mean (SD) |       |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------------------|-----------------------|-----|----------------------|-------|-------------|----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo                                | w fat            |                       |     |                      |       |             |                      |             |                       |
| TOHP I 1992   | 299              | -6.50(8.65)           | 239 | -2.70(7.73)          |       | -           |                      | 100.00      | -3.80 [-5.19, -2.41]  |
| Subtotal (95% CI)   | 299              |                       | 239 |                      |       | •           |                      | 100.00      | -3.80 [-5.19, -2.41]  |
| Test for heterogeneity: not<br>Test for overall effect: Z = |                  | 1)                    |     |                      |       |             |                      |             |                       |
| Total (95% CI)  | 299              |                       | 239 |                      |       |             |                      | 100.00      | -3.80 [-5.19, -2.41]  |
| Test for heterogeneity: not                                 | applicable       |                       |     |                      |       | •           |                      |             |                       |
| Test for overall effect: Z =                                | 5.37 (P < 0.0000 | 1)                    |     |                      |       |             |                      |             |                       |
|   |                  |                       |     |                      | -10   | -5          | 0 5                  | 10          |                       |
|   |                  |                       |     |                      | Favoi | urs treatme | nt Favours cor       | ntrol       |                       |

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Review: PHYSICAL ACTIVITY Analyses for adults

10 Physical activity, diet, and behaviour therapy vs control 18 Change in SBP in mmHg at 12 months Comparison:

Outcome:

| Study or sub-category                                       | N                 | Combined<br>Mean (SD)             | N   | Control<br>Mean (SD) |         | WMD (fixe<br>95% CI | ,             | WMD (fixed)<br>95% CI |
|---|-------------------|-----------------------------------|-----|----------------------|---------|---------------------|---------------|-----------------------|
| 01 600kcal/day deficit or lo                                | ow fat            |                                   |     |                      |         |                     |               |                       |
| TOHP I 1992   | 287               | -5.80(6.78)                       | 237 | -3.80(6.16)          |         | -                   | 97.63         | -2.00 [-3.11, -0.89]  |
| Subtotal (95% CI)   | 287               |                                   | 237 |                      |         | •                   | 97.63         | -2.00 [-3.11, -0.89]  |
| Test for heterogeneity: not                                 | applicable        |                                   |     |                      |         | -                   |               |                       |
| Test for overall effect: Z =                                | 3.53 (P = 0.0004) |                                   |     |                      |         |                     |               |                       |
| 02 LCD  |                   |                                   |     |                      |         |                     |               |                       |
| Jalkanen 1991   | 24                | -8.00(12.70)                      | 25  | -15.00(12.70)        |         | -                   | 2.37          | 7.00 [-0.11, 14.11]   |
| Subtotal (95% CI)   | 24                |                                   | 25  |                      |         | -                   | 2.37          | 7.00 [-0.11, 14.11]   |
| Test for heterogeneity: not                                 | applicable        |                                   |     |                      |         |                     |               |                       |
| Test for overall effect: Z =                                | 1.93 (P = 0.05)   |                                   |     |                      |         |                     |               |                       |
| Total (95% CI)  | 311               |                                   | 262 |                      |         | •                   | 100.00        | -1.79 [-2.88, -0.69]  |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = |                   | P = 0.01), I <sup>2</sup> = 83.3% |     |                      |         |                     |               |                       |
|   |                   |                                   |     |                      | -10     | -5 0                | 5 10          |                       |
|   |                   |                                   |     |                      | Favours | treatment Fa        | vours control |                       |

PHYSICAL ACTIVITY Analyses for adults

10 Physical activity, diet, and behaviour therapy vs control 19 Change in SBP in mmHg at 18 months

Comparison: Outcome:

| Study or sub-category  | N                       | Combined<br>Mean (SD)             | N   | Control<br>Mean (SD) | WMD (fix<br>95% C | ,      | WMD (fixed)<br>95% CI |
|--|-------------------------|-----------------------------------|-----|----------------------|-------------------|--------|-----------------------|
| 01 600kcal/day deficit or lo   | w fat                   |                                   |     |                      |                   |        |                       |
| TOHP I 1992  | 308                     | -5.35(7.19)                       | 256 | -2.45(7.37)          | - <del></del> -   | 35.64  | -2.90 [-4.11, -1.69]  |
| TOHP II 2001   | 533                     | -3.60(7.90)                       | 525 | -1.80(7.00)          |                   | 64.36  | -1.80 [-2.70, -0.90]  |
| Subtotal (95% CI)  | 841                     |                                   | 781 |                      | •                 | 100.00 | -2.19 [-2.91, -1.47]  |
| Test for heterogeneity: Chi-   | $^{2}$ = 2.05, df = 1 ( | P = 0.15), I <sup>2</sup> = 51.2% |     |                      | , ,               |        |                       |
| Test for overall effect: Z = 5   | 5.96 (P < 0.0000        | 1)                                |     |                      |                   |        |                       |
| Total (95% CI) Test for heterogeneity: Chir Test for overall effect: Z = 6 | . ,                     | , ,                               | 781 |                      | •                 | 100.00 | -2.19 [-2.91, -1.47]  |
|  |                         |                                   |     |                      | -10 -5 0          | 5 10   |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: Comparison:

PHYSICAL ACTIVITY Analyses for adults 10 Physical activity, diet, and behaviour therapy vs control 20 Change in SBP in mmHg at 36 months

Outcome:

| Study or sub-category             | N             | Combined<br>Mean (SD) | N   | Control<br>Mean (SD) |     | WMD (fixe<br>95% CI | ,     | ` ,                     |
|-----------------------------------|---------------|-----------------------|-----|----------------------|-----|---------------------|-------|-------------------------|
| 01 600kcal/day deficit or low f   | at            |                       |     |                      |     |                     |       |                         |
| TOHP II 2001                      | 527           | -0.80(8.70)           | 514 | 0.60(8.50)           |     |                     | 100.0 | 00 -1.40 [-2.44, -0.36] |
| Subtotal (95% CI)                 | 527           |                       | 514 |                      |     | •                   | 100.0 | 00 -1.40 [-2.44, -0.36] |
| Test for heterogeneity: not ap    | plicable      |                       |     |                      |     | Ť                   |       |                         |
| Test for overall effect: Z = 2.63 | 3 (P = 0.009) |                       |     |                      |     |                     |       |                         |
| Total (95% CI)                    | 527           |                       | 514 |                      |     | •                   | 100.0 | 00 -1.40 [-2.44, -0.36] |
| Test for heterogeneity: not ap    | plicable      |                       |     |                      |     | , , ,               |       |                         |
| Test for overall effect: Z = 2.6  | 3 (P = 0.009) |                       |     |                      |     |                     |       |                         |
|                                   |               |                       |     |                      | -10 | -5 0                | 5 10  |                         |

PHYSICAL ACTIVITY Analyses for adults

Comparison: 11 Physical activity, diet, and behaviour therapy vs information

| Study<br>or sub-category                   | N              | Combined<br>Mean (SD) | N  | Information<br>Mean (SD) |                 | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----------------|-----------------------|----|--------------------------|-----------------|----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low              | fat            |                       |    |                          |                 |                      |             |                       |
| Narayan 1998                               | 45             | 1.00(6.20)            | 45 | 0.50(6.06)               | -               | <del></del>          | 56.17       | 0.50 [-2.03, 3.03]    |
| Subtotal (95% CI)                          | 45             |                       | 45 |                          | -               |                      | 56.17       | 0.50 [-2.03, 3.03]    |
| Test for heterogeneity: not ap             | plicable       |                       |    |                          |                 | ľ                    |             |                       |
| Test for overall effect: $Z = 0.3$         | 39 (P = 0.70)  |                       |    |                          |                 |                      |             |                       |
| 02 VLCD                                    |                |                       |    |                          |                 |                      |             |                       |
| Wing 1998                                  | 31             | -10.30(7.70)          | 32 | -1.50(2.70)              | <del></del>     |                      | 43.83       | -8.80 [-11.67, -5.93] |
| Subtotal (95% CI)                          | 31             |                       | 32 |                          |                 |                      | 43.83       | -8.80 [-11.67, -5.93] |
| Test for heterogeneity: not ap             | plicable       |                       |    |                          | _               |                      |             |                       |
| Test for overall effect: $Z = 6.0$         | 02 (P < 0.0000 | 11)                   |    |                          |                 |                      |             |                       |
| Total (95% CI)                             | 76             |                       | 77 |                          |                 |                      | 100.00      | -3.58 [-5.47, -1.68]  |
| Test for heterogeneity: Chi <sup>2</sup> = |                |                       |    |                          | _               |                      |             |                       |
| Test for overall effect: Z = 3.6           | 69 (P = 0.0002 | <u>'</u> !)           |    |                          |                 |                      |             |                       |
|  |                | -                     |    |                          | -10 -5          | 0 5                  | 10          |                       |
|  |                |                       |    |                          | Favours treatme | nt Favours cor       | ntrol       |                       |

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Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: 11 Physical activity, diet, and behaviour therapy vs information 02 Weight change in kg at 12 months

Outcome:

|   |     | Mean (SD)   | N   | Mean (SD)   | 95% CI        | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|-------------|-----|-------------|---------------|-------------|-----------------------|
| 1 600kcal/day deficit or low fa   | at  |             |     |             |               |             |                       |
| Djuric 2002a  | 9   | -8.00(5.50) | 6   | 0.85(6.00)  | <del></del>   | 1.82        | -8.85 [-14.85, -2.85] |
| Lindahl 1999  | 93  | -5.40(4.44) | 93  | -0.50(2.75) | <del></del>   | 57.93       | -4.90 [-5.96, -3.84]  |
| Mayer-Davis 2004  | 49  | -2.20(6.54) | 56  | -0.30(6.00) | _ <del></del> | 11.21       | -1.90 [-4.31, 0.51]   |
| Narayan 1998  | 45  | 2.50(6.62)  | 45  | 0.80(6.14)  | <del></del>   | 9.38        | 1.70 [-0.94, 4.34]    |
| Wolf 2004   | 73  | -2.40(6.59) | 71  | 0.60(6.08)  | <del></del>   | 15.23       | -3.00 [-5.07, -0.93]  |
| Subtotal (95% CI)   | 269 |             | 271 |             | •             | 95.57       | -3.67 [-4.50, -2.85]  |
| 2 VLCD  |     |             |     |             |               |             |                       |
| Wing 1998   | 30  | -7.40(9.70) | 29  | -0.30(4.50) | <b>←</b>      | 4.43        | -7.10 [-10.94, -3.26] |
| Subtotal (95% CI)   | 30  |             | 29  |             |               | 4.43        | -7.10 [-10.94, -3.26] |
| est for heterogeneity: not app<br>est for overall effect: Z = 3.63            |     | )           |     |             |               |             |                       |
| otal (95% CI)   | 299 |             | 300 |             | •             | 100.00      | -3.82 [-4.63, -3.02]  |
| est for heterogeneity: Chi <sup>2</sup> =<br>est for overall effect: Z = 9.28 |     |             |     |             |               |             |                       |

Review: PHYSICAL ACTIVITY Analyses for adults

11 Physical activity, diet, and behaviour therapy vs information 03 Weight change in kg at 18 months Comparison:

Outcome:

| Study or sub-category              | N               | Combined<br>Mean (SD) | N  | Information<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|-----------------|-----------------------|----|--------------------------|-----|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low      | r fat           |                       |    |                          |     |                       |             |                       |
| Messier 2004                       | 76              | -5.20(7.37)           | 78 | -1.10(6.23)              | _   | <del></del>           | 100.00      | -4.10 [-6.26, -1.94]  |
| Subtotal (95% CI)                  | 76              |                       | 78 |                          | -   |                       | 100.00      | -4.10 [-6.26, -1.94]  |
| Test for heterogeneity: not a      |                 |                       |    |                          |     |                       |             |                       |
| Test for overall effect: $Z = 3$ . | 72 (P = 0.0002) | )                     |    |                          |     |                       |             |                       |
| Total (95% CI)                     | 76              |                       | 78 |                          | -   |                       | 100.00      | -4.10 [-6.26, -1.94]  |
| Test for heterogeneity: not a      | pplicable       |                       |    |                          |     | •                     |             |                       |
| Test for overall effect: Z = 3.    | 72 (P = 0.0002) | )                     |    |                          |     |                       |             |                       |
|                                    |                 |                       |    |                          | -10 | -5 0 5                | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 11 Physical activity, diet, and behaviour therapy vs information Outcome:

04 Weight change in kg at 24 months

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | Information<br>Mean (SD) |       | WMD (fixe<br>95% C | ,             | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|--------------------------|-------|--------------------|---------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                          |       |                    |               |             |                       |
| Wing 1998  | 32 | -2.50(8.40)           | 31 | -0.30(4.50)              |       |                    |               | 100.00      | -2.20 [-5.51, 1.11]   |
| Subtotal (95% CI)  | 32 |                       | 31 |                          |       |                    |               | 100.00      | -2.20 [-5.51, 1.11]   |
| Test for heterogeneity: not a<br>Test for overall effect: Z = 1.             |    |                       |    |                          |       |                    |               |             |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 1. |    |                       | 31 |                          |       |                    |               | 100.00      | -2.20 [-5.51, 1.11]   |
| -  |    |                       |    |                          | -10   | -5 0               | 5             | 10          |                       |
|  |    |                       |    |                          | Favou | ırs treatment Fa   | avours contro | I           |                       |

PHYSICAL ACTIVITY Analyses for adults 11 Physical activity, diet, and behaviour therapy vs information 05 Weight change over time Comparison:

| Study<br>or sub-category    | N                | Combined<br>Mean (SD) | N  | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------|------------------|-----------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 Narayan 1998 - 600kcal/d | eficit or low fa | t                     |    |                          |                       |             |                       |
| Narayan 6 months            | 45               | 1.00(6.20)            | 45 | 0.50(6.06)               | <del></del>           | 52.03       | 0.50 [-2.03, 3.03]    |
| Narayan 12 months           | 45               | 2.50(6.62)            | 45 | 0.80(6.14)               | +-                    | 47.97       | 1.70 [-0.94, 4.34]    |
| 02 Wing 1998 - VLCD         |                  |                       |    |                          |                       |             |                       |
| Wing 1998 6 months          | 31               | -10.30(7.70)          | 32 | -1.50(2.70)              | <b>←</b>              | 43.35       | -8.80 [-11.67, -5.93] |
| Wing 1998 12 months         | 30               | -7.40(9.70)           | 29 | -0.30(4.50)              | <b>←</b>              | 24.19       | -7.10 [-10.94, -3.26] |
| Wing 1998 24 months         | 32               | -2.50(8.40)           | 31 | -0.30(4.50)              | <del></del>           | 32.46       | -2.20 [-5.51, 1.11]   |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

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PHYSICAL ACTIVITY Analyses for adults

11 Physical activity, diet, and behaviour therapy vs information Comparison: 06 Change in total cholesterol in mmol/l at 6 months Outcome:

WMD (fixed) Weight WMD (fixed) Study Treatment Control Ν Mean (SD) Ν Mean (SD) 01 600 kcal/day deficit or low fat 0.16 [-0.25, 0.57] 0.10 [-0.35, 0.55] 0.13 [-0.17, 0.44] Mayer-Davis 2004 49 0.00(1.08) 56 45 -0.16(1.08) 24.31 20.93 45 0.00(1.08) -0.10(1.08) Narayan 1998 Subtotal (95% CI) 94
Test for heterogeneity: Chi² = 0.04, df = 1 (P = 0.85), l² = 0% 101 45.24 Test for overall effect: Z = 0.85 (P = 0.39) 02 VLCD 31 31 32 32 54.76 54.76 -0.45 [-0.73, -0.17] -0.45 [-0.73, -0.17] Wing 1998 -0.33(0.61) 0.12(0.50) Subtotal (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 3.20 (P = 0.001) Total (95% CI) 133 100.00 -0.19 [-0.39, 0.02] Test for heterogeneity: Chi<sup>2</sup> = 7.78, df = 2 (P = 0.02),  $I^2$  = 74.3% Test for overall effect: Z = 1.79 (P = 0.07)

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 11 Physical activity, diet, and behaviour therapy vs information Outcome: 07 Change in total cholesterol in mmol/l at 12 months

| N              | Combined<br>Mean (SD)   | N  | Information<br>Mean (SD)   | WMD (fixed)<br>95% CI            | Weight<br>%                              | WMD (fixed)<br>95% CI                     |
|----------------|---|--|--|----------------------------------|--|---|
| at             |   |  |  |                                  |  |   |
| 93             | -0.21(0.70)   | 93   | -0.06(0.49)  | <del>-</del>                     | 71.00                                    | -0.15 [-0.32, 0.02]                       |
| 45             | 0.20(1.08)  | 45   | 0.10(1.08)   |                                  | 10.75                                    | 0.10 [-0.35, 0.55]                        |
| 138            |   | 138  |  |                                  | 81.75                                    | -0.12 [-0.28, 0.04]                       |
|                | P = 0.31), I <sup>2</sup> = 4.5%  |  |  |                                  |  |   |
|                |   |  |  |                                  |  |   |
| 30             | 0.32(0.64)  | 29   | 0.39(0.70)   |                                  | 18.25                                    | -0.07 [-0.41, 0.27]                       |
| 30             |   | 29   |  |                                  | 18.25                                    | -0.07 [-0.41, 0.27]                       |
| plicable       |   |  |  |                                  |  |   |
|                |   |  |  |                                  |  |   |
| 168            |   | 167  |  |                                  | 100.00                                   | -0.11 [-0.25, 0.04]                       |
| 1.11, df = 2 ( | P = 0.58), I <sup>2</sup> = 0%  |  |  | _                                |  |   |
|                | •   |  |  |                                  |  |   |
|                | 93<br>45<br>138<br>1.05, df = 1 (l<br>2 (P = 0.16)<br>30<br>30<br>pplicable<br>0 (P = 0.69) | N Mean (SD)  fat  93 -0.21(0.70) 45 0.20(1.08) 138  1.05, df = 1 (P = 0.31), I <sup>2</sup> = 4.5% 2 (P = 0.16)  30 0.32(0.64) 30  pplicable 0 (P = 0.69)  168  1.11, df = 2 (P = 0.58), I <sup>2</sup> = 0% | N Mean (SD) N  fat  93 -0.21(0.70) 93 45 0.20(1.08) 45 138 138  1.05, df = 1 (P = 0.31), l² = 4.5% 2 (P = 0.16)  30 0.32(0.64) 29 30 29 plicable 0 (P = 0.69)  168 167  1.11, df = 2 (P = 0.58), l² = 0% | N Mean (SD) N Mean (SD)  fat  93 | N Mean (SD) N Mean (SD) 95% C1   Tat  93 | N Mean (SD) N Mean (SD) 95% CI %  fat  93 |

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: 11 Physical activity, diet, and behaviour therapy vs information 08 Change in total cholesterol in mmol/l at 24 months Outcome:

| Study or sub-category                      | N               | Combined<br>Mean (SD) | N  | Information<br>Mean (SD) |         | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----------------|-----------------------|----|--------------------------|---------|-----------------------|-------------|-----------------------|
| 01 VLCD                                    |                 |                       |    |                          |         |                       |             |                       |
| Wing 1998                                  | 32              | 0.09(0.67)            | 31 | 0.18(0.53)               |         | <del></del>           | 100.00      | -0.09 [-0.39, 0.21]   |
| Subtotal (95% CI)                          | 32              |                       | 31 |                          |         |                       | 100.00      | -0.09 [-0.39, 0.21]   |
| Test for heterogeneity: not                | applicable      |                       |    |                          |         |                       |             |                       |
| Test for overall effect: $Z = 0$           | 0.59 (P = 0.55) |                       |    |                          |         |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not |                 |                       | 31 |                          |         |                       | 100.00      | -0.09 [-0.39, 0.21]   |
| Test for overall effect: $Z = 0$           | 0.59 (P = 0.55) |                       |    |                          |         |                       |             |                       |
|  |                 |                       |    |                          | -1 -0.5 | 0 0.5                 | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

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PHYSICAL ACTIVITY Analyses for adults

11 Physical activity, diet, and behaviour therapy vs information 09 Change in LDL cholesterol in mmol/l at 6 months Comparison: Outcome:

WMD (fixed) Weight WMD (fixed) Study Treatment Control or sub-category Ν Mean (SD) Ν Mean (SD) 01 600 kcal/day deficit or low fat Mayer-Davis 2004 Subtotal (95% CI) 49 -0.09(0.74)56 -0.18(0.74) 45.46 0.09 [-0.19, 0.37] 0.09 [-0.19, 0.37] 49 56 45.46 Test for heterogeneity: not applicable Test for overall effect: Z = 0.62 (P = 0.53) 02 VLCD Wing 1998 -0.13(0.58) 0.08(0.46) 54.54 -0.21 [-0.47, 0.05] 32 Subtotal (95% CI) 31 32 -0.21 [-0.47, 0.05] Test for heterogeneity: not applicable
Test for overall effect: Z = 1.59 (P = 0.11) Total (95% CI) 88 100.00 -0.07 [-0.26, 0.12] Test for heterogeneity: Chi² = 2.34, df = 1 (P = 0.13),  $I^2$  = 57.3% Test for overall effect: Z = 0.75 (P = 0.45)

-0.5

Favours treatment Favours control

Favours treatment Favours control

Favours control Favours treatment

0.5

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults Comparison:

11 Physical activity, diet, and behaviour therapy vs information 10 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category                           | N            | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|--------------|------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 VLCD   |              |                        |    |                      |                       |             |                       |
| Wing 1998                                       | 30           | 0.14(0.54)             | 29 | 0.24(0.66)           | <del></del>           | 100.00      | -0.10 [-0.41, 0.21]   |
| Subtotal (95% CI)                               | 30           |                        | 29 |                      |                       | 100.00      | -0.10 [-0.41, 0.21]   |
| Test for heterogeneity: not appl                | icable       |                        |    |                      |                       |             |                       |
| Test for overall effect: Z = 0.64               | (P = 0.52)   |                        |    |                      |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not appl | 30<br>icable |                        | 29 |                      |                       | 100.00      | -0.10 [-0.41, 0.21]   |
| Test for overall effect: Z = 0.64               |              |                        |    |                      |                       |             |                       |
|   |              |                        |    |                      | -1 -0.5 0 0.5         | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome: 11 Physical activity, diet, and behaviour therapy vs information 11 Change in LDL cholesterol on mmol/l at 24 months

| Study or sub-category   | N         | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------|------------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| 01 VLCD   |           |                        |    |                      |    |                       |             |                       |
| Wing 1998   | 32        | 0.12(0.52)             | 31 | 0.03(0.46)           |    | <del>-</del>          | 100.00      | 0.09 [-0.15, 0.33]    |
| Subtotal (95% CI)   | 32        |                        | 31 |                      |    |                       | 100.00      | 0.09 [-0.15, 0.33]    |
| Test for heterogeneity: not a                                 | pplicable |                        |    |                      |    |                       |             |                       |
| Test for overall effect: Z = 0.                               |           |                        |    |                      |    |                       |             |                       |
| Total (95% CI)  | 32        |                        | 31 |                      |    |                       | 100.00      | 0.09 [-0.15, 0.33]    |
| Test for heterogeneity: not a Test for overall effect: Z = 0. |           |                        |    |                      |    |                       |             |                       |
|   |           |                        |    |                      | -1 | -0.5 0 0.5            | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 11 Physical activity, diet, and behaviour therapy vs information Outcome

12 Change in HDL cholesterol in mmol/Lat 6 months

| or sub-category   | N         | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------|------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 02 VLCD   |           |                        |    |                      |                       |             |                       |
| Wing 1998   | 31        | -0.06(0.16)            | 32 | -0.02(0.11)          | <del>=</del>          | 100.00      | -0.04 [-0.11, 0.03]   |
| Subtotal (95% CI)   | 31        |                        | 32 |                      |                       | 100.00      | -0.04 [-0.11, 0.03]   |
| Test for heterogeneity: not applie  | cable     |                        |    |                      | Ţ                     |             |                       |
| Test for overall effect: Z = 1.15 (   | P = 0.25) |                        |    |                      |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not applic Test for overall effect: Z = 1.15 ( |           |                        | 32 |                      | •                     | 100.00      | -0.04 [-0.11, 0.03]   |

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PHYSICAL ACTIVITY Analyses for adults

11 Physical activity, diet, and behaviour therapy vs information 13 Change in HDL cholesterol in mmol/l at 12 months Comparison: Outcome:

WMD (fixed) Weight WMD (fixed) Study Combined Information Ν Mean (SD) Ν Mean (SD) 01 VLCD Wing 1998 Subtotal (95% CI) 30 0.12(0.20) 29 0.08(0.16) 100.00 0.04 [-0.05, 0.13] 0.04 [-0.05, 0.13] 29 30 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.85 (P = 0.40) Total (95% CI)
Test for heterogeneity: not applicable 0.04 [-0.05, 0.13] 29 100.00 Test for overall effect: Z = 0.85 (P = 0.40)

Favours control Favours treatment

Favours control Favours treatment

Favours treatment Favours control

0.5

-0.5

Review: PHYSICAL ACTIVITY Analyses for adults

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11 Physical activity, diet, and behaviour therapy vs information 14 Change in HDL cholesterol in mmol/l at 24 months Comparison: Outcome:

| Study or sub-category  | N            | Combined<br>Mean (SD) | N  | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------|-----------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |              |                       |    |                          |                       |             |                       |
| Wing 1998  | 32           | 0.02(0.21)            | 31 | 0.04(0.24)               | -                     | 100.00      | -0.02 [-0.13, 0.09]   |
| Subtotal (95% CI)  | 32           |                       | 31 |                          | •                     | 100.00      | -0.02 [-0.13, 0.09]   |
| Test for heterogeneity: not ap   | plicable     |                       |    |                          | 1                     |             |                       |
| Test for overall effect: Z = 0.3   | 5 (P = 0.73) |                       |    |                          |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 0.3 |              |                       | 31 |                          | •                     | 100.00      | -0.02 [-0.13, 0.09]   |
| Test for overall effect. Z = 0.5   | 3 (1 = 0.73) |                       |    |                          | 1 -0.5 0 0.5          | 1           |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults
11 Physical activity, diet, and behaviour therapy vs information Comparison: Outcome:

15 Change in triglycerides in mmol/l at 6 months

| 01 600 kcal/day deficit or low fat  Mayer-Davis 2004   | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI | Control<br>Mean (SD) | N  | Treatment<br>Mean (SD)           | N               | Study or sub-category                      |
|--|-----------------------|-------------|-----------------------|----------------------|----|----------------------------------|-----------------|--|
| Mayer-Davis 2004 49 0.01(0.96) 56 0.01(0.96) 66.82 Subtotal (95% CI) 49 56 Test for heterogeneity: not applicable Test for overall effect: Z = 0.00 (P = 1.00)  02 VLCD Wing 1998 31 -0.69(1.45) 32 0.29(0.32) 33.18 Subtotal (95% CI) 31 32 Test for heterogeneity: not applicable Test for overall effect: Z = 3.68 (P = 0.0002)  Total (95% CI) 80 88 |                       |             |                       |                      |    |                                  | fat             | 01 600 kcal/day deficit or low             |
| Test for heterogeneity: not applicable  Test for overall effect: Z = 0.00 (P = 1.00)  02 VLCD  Wing 1998 31 -0.69(1.45) 32 0.29(0.32) 33.18  Subtotal (95% CI) 31 32 33.18  Test for heterogeneity: not applicable  Test for overall effect: Z = 3.68 (P = 0.0002)  Total (95% CI) 80 88   | 0.00 [-0.37, 0.37]    | 66.82       |                       | 0.01(0.96)           | 56 | 0.01(0.96)                       |                 |  |
| Test for overall effect: Z = 0.00 (P = 1.00)  02 VLCD  Wing 1998 31 -0.69(1.45) 32 0.29(0.32)  Subtotal (95% CI) 31 32 33.18  Test for heterogeneity: not applicable  Test for overall effect: Z = 3.68 (P = 0.0002)  Total (95% CI) 80 88 100.00  | 0.00 [-0.37, 0.37]    | 66.82       |                       |                      | 56 |                                  | 49              | Subtotal (95% CI)                          |
| Test for overall effect: Z = 0.00 (P = 1.00)  02 VLCD  Wing 1998 31 -0.69 (1.45) 32 0.29 (0.32)  Subtotal (95% CI) 31 32 33.18  Test for heterogeneity: not applicable  Test for overall effect: Z = 3.68 (P = 0.0002)  Total (95% CI) 80 88 100.00  |                       |             |                       |                      |    |                                  | plicable        | Test for heterogeneity: not ap             |
| Wing 1998 31 -0.69(1.45) 32 0.29(0.32)   |                       |             |                       |                      |    |                                  |                 |  |
| Subtotal (95% CI) 31 32 33.18  Test for heterogeneity: not applicable Test for overall effect: Z = 3.68 (P = 0.0002)  Total (95% CI) 80 88 100.00  |                       |             |                       |                      |    |                                  |                 | 02 VLCD                                    |
| Test for heterogeneity: not applicable Test for overall effect: Z = 3.68 (P = 0.0002)  Total (95% CI) 80 88 100.00   | -0.98 [-1.50, -0.46]  | 33.18       | ←                     | 0.29(0.32)           | 32 | -0.69(1.45)                      | 31              | Wing 1998                                  |
| Test for heterogeneity: not applicable Test for overall effect: Z = 3.68 (P = 0.0002)  Total (95% CI) 80 88 100.00   | -0.98 [-1.50, -0.46]  | 33.18       |                       |                      | 32 |                                  | 31              | Subtotal (95% CI)                          |
| Test for overall effect: Z = 3.68 (P = 0.0002)  Total (95% CI) 80 88 100.00  |                       |             |                       |                      |    |                                  | plicable        |  |
|  |                       |             |                       |                      |    |                                  |                 |  |
| Test for heterogeneity: $Chi^2 = 9.04$ , $df = 1$ (P = 0.003), $I^2 = 88.9\%$  | -0.33 [-0.63, -0.02]  | 100.00      |                       |                      | 88 |                                  | 80              | Total (95% CI)                             |
|  |                       |             | _                     |                      |    | = 0.003), I <sup>2</sup> = 88.9% | 9.04. df = 1 (P | Test for heterogeneity: Chi <sup>2</sup> = |
| Test for overall effect: Z = 2.12 (P = 0.03)   |                       |             |                       |                      |    | ,.                               |                 |  |
| -1 -0.5 0 0.5 1  |                       | <del></del> | <del></del>           |                      |    |                                  | . ,             |  |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 11 Physical activity, diet, and behaviour therapy vs information

Outcome 16 Change in triglycerides in mmol/Lat 12 months

| Study<br>or sub-category   | N             | Combined<br>Mean (SD)          | N   | Information<br>Mean (SD) | WMD (fixed)<br>95% CI        | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------------|--------------------------------|-----|--------------------------|------------------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low  | fat           |                                |     |                          |                              |             |                       |
| Lindahl 1999   | 93            | -0.16(0.59)                    | 93  | -0.09(0.59)              | <del>-</del>                 | 95.08       | -0.07 [-0.24, 0.10]   |
| Subtotal (95% CI)  | 93            |                                | 93  |                          | <b>→</b>                     | 95.08       | -0.07 [-0.24, 0.10]   |
| Test for heterogeneity: not a  | pplicable     |                                |     |                          | ٦                            |             |                       |
| Test for overall effect: $Z = 0.5$                                   | 81 (P = 0.42) |                                |     |                          |                              |             |                       |
| 02 VLCD  |               |                                |     |                          |                              |             |                       |
| Wing 1998  | 30            | 0.33(1.65)                     | 29  | 0.40(1.25)               | <del>-</del>                 | 4.92        | -0.07 [-0.82, 0.68]   |
| Subtotal (95% CI)  | 30            |                                | 29  |                          |                              | 4.92        | -0.07 [-0.82, 0.68]   |
| Test for heterogeneity: not a<br>Test for overall effect: Z = 0.     |               |                                |     |                          |                              |             |                       |
| Total (95% CI)   | 123           |                                | 122 |                          | •                            | 100.00      | -0.07 [-0.24, 0.10]   |
| Test for heterogeneity: $Chi^2 = Test$ for overall effect: $Z = 0.3$ |               | P = 1.00), I <sup>2</sup> = 0% |     |                          |                              |             |                       |
|  |               |                                |     |                          | -1 -0.5 0 0.5                | 1           |                       |
|  |               |                                |     |                          | Favours treatment Favours co | ntrol       |                       |

11 Physical activity, diet, and behaviour therapy vs information 17 Change in triglycerides in mmol/l at 24 months Comparison:

Outcome:

| Study or sub-category          | N               | Combined<br>Mean (SD) | N  | Information<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|-----------------------|----|--------------------------|-------|-----------------------|-------------|-----------------------|
| 01 VLCD                        |                 |                       |    |                          |       |                       |             |                       |
| Wing 1998                      | 32              | -0.28(1.33)           | 31 | 0.52(1.14)               | 4     | <del></del>           | 100.00      | -0.80 [-1.41, -0.19]  |
| Subtotal (95% CI)              | 32              |                       | 31 |                          |       |                       | 100.00      | -0.80 [-1.41, -0.19]  |
| Test for heterogeneity: not    | applicable      |                       |    |                          |       |                       |             |                       |
| Test for overall effect: Z = 2 | 2.57 (P = 0.01) |                       |    |                          |       |                       |             |                       |
| Total (95% CI)                 | 32              |                       | 31 |                          |       |                       | 100.00      | -0.80 [-1.41, -0.19]  |
| Test for heterogeneity: not    | applicable      |                       |    |                          |       |                       |             |                       |
| Test for overall effect: Z = 2 | 2.57 (P = 0.01) |                       |    |                          |       |                       |             |                       |
|                                |                 |                       |    |                          | -1 -( | 0.5 0 0.5             | 1           |                       |

Favours treatment Favours control

-0.5

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

2482

0.5

PHYSICAL ACTIVITY Analyses for adults Review:

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Comparison: 11 Physical activity, diet, and behaviour therapy vs information Outcome: 18 Change in fasting plasma glucose in mmol/l at 6 months

WMD (fixed) 95% CI WMD (fixed) 95% CI Study Treatment Control Weight Mean (SD) Mean (SD) or sub-category 01 600 kcal/day deficit or low fat Narayan 1998 45 0.10(1.98) 45 0.10(1.98) 6.93 0.00 [-0.82, 0.82] Subtotal (95% CI) 45 45 6.93 0.00 [-0.82, 0.82] Test for heterogeneity: not applicable Test for overall effect: Z = 0.00 (P = 1.00) -0.30 [-0.52, -0.08] -0.30 [-0.52, -0.08] Wing 1998 Subtotal (95% CI) -0.20(0.40)0.10(0.50) 32 93.07 Test for heterogeneity: not applicable
Test for overall effect: Z = 2.63 (P = 0.008) Total (95% CI) \$76\$ Test for heterogeneity: Chi² = 0.48, df = 1 (P = 0.49), I² = 0% -0.28 [-0.49, -0.06] 77 100.00 Test for overall effect: Z = 2.54 (P = 0.01)

PHYSICAL ACTIVITY Analyses for adults Review:

11 Physical activity, diet, and behaviour therapy vs information 19 Change in fasting plasma glucose in mmol/l at 12 months Comparison: Outcome:

| Study<br>or sub-category           | N                 | Combined<br>Mean (SD)          | N   | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|-------------------|--------------------------------|-----|--------------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low      | fat               |                                |     |                          |                       |             |                       |
| Lindahl 1999                       | 93                | -0.50(0.68)                    | 93  | -0.31(1.14)              | <del></del>           | 46.57       | -0.19 [-0.46, 0.08]   |
| Narayan 1998                       | 45                | 0.10(1.35)                     | 45  | 0.10(1.35)               | <del></del>           | 10.89       | 0.00 [-0.56, 0.56]    |
| Subtotal (95% CI)                  | 138               |                                | 138 |                          |                       | 57.47       | -0.15 [-0.40, 0.09]   |
| Test for heterogeneity: Chi2:      | = 0.36, df = 1 (l | P = 0.55), I <sup>2</sup> = 0% |     |                          |                       |             |                       |
| Test for overall effect: $Z = 1$ . | 24 (P = 0.21)     |                                |     |                          |                       |             |                       |
| 02 VLCD                            |                   |                                |     |                          |                       |             |                       |
| Wing 1998                          | 30                | 0.00(0.50)                     | 29  | 0.00(0.60)               | <del></del>           | 42.53       | 0.00 [-0.28, 0.28]    |
| Subtotal (95% CI)                  | 30                |                                | 29  |                          |                       | 42.53       | 0.00 [-0.28, 0.28]    |
| Test for heterogeneity: not a      | pplicable         |                                |     |                          | T                     |             |                       |
| Test for overall effect: $Z = 0$ . | 00 (P = 1.00)     |                                |     |                          |                       |             |                       |
| Total (95% CI)                     | 168               |                                | 167 |                          |                       | 100.00      | -0.09 [-0.27, 0.10]   |
| Test for heterogeneity: Chi2:      | = 1.02, df = 2 (l | P = 0.60), I <sup>2</sup> = 0% |     |                          | $\neg$                |             |                       |
| Test for overall effect: $Z = 0$ . |                   | **                             |     |                          |                       |             |                       |

PHYSICAL ACTIVITY Analyses for adults Review: Comparison:

11 Physical activity, diet, and behaviour therapy vs information Outcome: 20 Change in fasting plasma glucose in mmol/l at 24 months

| Study or sub-category  | N             | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------------|------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |               |                        |    |                      |                       |             |                       |
| Wing 1998  | 32            | 0.50(1.30)             | 31 | 0.20(0.40)           |                       | 100.00      | 0.30 [-0.17, 0.77]    |
| Subtotal (95% CI)  | 32            |                        | 31 |                      |                       | 100.00      | 0.30 [-0.17, 0.77]    |
| Test for heterogeneity: not ap                                     | plicable      |                        |    |                      |                       |             |                       |
| Test for overall effect: Z = 1.2                                   | 25 (P = 0.21) |                        |    |                      |                       |             |                       |
| Total (95% CI)   | 32            |                        | 31 |                      |                       | 100.00      | 0.30 [-0.17, 0.77]    |
| Test for heterogeneity: not ap<br>Test for overall effect: Z = 1.2 |               |                        |    |                      |                       |             |                       |
|  |               |                        |    |                      | -1 -0.5 0 0.5         | 1           |                       |

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Review: Comparison: Outcome: PHYSICAL ACTIVITY Analyses for adults 11 Physical activity, diet, and behaviour therapy vs information 22 Change in %HbA1c at 6 months

| Study<br>or sub-category                | N                 | Treatment<br>Mean (SD)            | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------------------|-----------------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low           | r fat             |                                   |    |                      |                       |             |                       |
| Mayer-Davis 2004                        | 49                | -1.56(0.76)                       | 56 | -1.12(0.76)          | <del></del>           | 22.15       | -0.44 [-0.73, -0.15]  |
| Subtotal (95% CI)                       | 49                |                                   | 56 |                      |                       | 22.15       | -0.44 [-0.73, -0.15]  |
| est for heterogeneity: not a            | pplicable         |                                   |    |                      |                       |             |                       |
| Test for overall effect: $Z = 2$ .      | 96 (P = 0.003)    |                                   |    |                      |                       |             |                       |
| 02 VLCD                                 |                   |                                   |    |                      |                       |             |                       |
| Wing 1998                               | 31                | 0.03(0.20)                        | 32 | 0.20(0.40)           | <del>-</del>          | 77.85       | -0.17 [-0.33, -0.01]  |
| Subtotal (95% CI)                       | 31                |                                   | 32 |                      |                       | 77.85       | -0.17 [-0.33, -0.01]  |
| est for heterogeneity: not a            | pplicable         |                                   |    |                      | -                     |             |                       |
| est for overall effect: Z = 2.          | 14 (P = 0.03)     |                                   |    |                      |                       |             |                       |
| Total (95% CI)                          | 80                |                                   | 88 |                      | •                     | 100.00      | -0.23 [-0.37, -0.09]  |
| est for heterogeneity: Chi <sup>2</sup> | = 2.57, df = 1 (F | P = 0.11), I <sup>2</sup> = 61.1% |    |                      | ,                     |             |                       |
| est for overall effect: $Z = 3$ .       | 28 (P = 0.001)    | **                                |    |                      |                       |             |                       |

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults 11 Physical activity, diet, and behaviour therapy vs information 23 Change in %HbA1c at 24 months Comparison: Outcome:

| Study or sub-category          | N               | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |        | WMD (fixed)<br>95% CI                              | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|------------------------|----|----------------------|--------|--|-------------|-----------------------|
| 01 VLCD                        |                 |                        |    |                      |        |  |             |                       |
| Wing 1998                      | 32              | 0.04(1.08)             | 31 | -0.10(0.30)          |        | <del>-   -   -   -   -   -   -   -   -   -  </del> | 100.00      | 0.14 [-0.25, 0.53]    |
| Subtotal (95% CI)              | 32              |                        | 31 |                      |        |  | 100.00      | 0.14 [-0.25, 0.53]    |
| Test for heterogeneity: not    | applicable      |                        |    |                      |        |  |             |                       |
| Test for overall effect: Z = 0 |                 |                        |    |                      |        |  |             |                       |
| Total (95% CI)                 | 32              |                        | 31 |                      |        |  | 100.00      | 0.14 [-0.25, 0.53]    |
| Test for heterogeneity: not    | applicable      |                        |    |                      |        |  |             |                       |
| Test for overall effect: Z = 0 | 0.71 (P = 0.48) |                        |    |                      |        |  |             |                       |
|                                |                 |                        |    |                      | -1 -0. | 5 0 0.5  | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Review:

PHYSICAL ACTIVITY Analyses for adults 11 Physical activity, diet, and behaviour therapy vs information 24 Change in DBP in mmHg at 6 months Comparison: Outcome:

| Study<br>or sub-category   | N                | Treatment<br>Mean (SD)            | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI                            | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------------|-----------------------------------|-----|----------------------|--|-------------|-----------------------|
| 01 600 kcal/day deficit or lo  | w fat            |                                   |     |                      |  |             |                       |
| Mayer-Davis 2004   | 49               | -0.49(8.30)                       | 56  | -2.65(8.30)          | <del>                                     </del> | 42.71       | 2.16 [-1.02, 5.34]    |
| Narayan 1998   | 45               | 2.50(8.30)                        | 45  | 0.10(8.30)           | <del></del>                                      | 36.77       | 2.40 [-1.03, 5.83]    |
| Subtotal (95% CI)  | 94               |                                   | 101 |                      |  | 79.49       | 2.27 [-0.06, 4.60]    |
| Test for heterogeneity: Chi <sup>2</sup><br>Test for overall effect: Z = 1 |                  | P = 0.92), I <sup>2</sup> = 0%    |     |                      |  |             |                       |
| 02 VLCD  |                  |                                   |     |                      |  |             |                       |
| Wing 1998  | 31               | -6.90(10.40)                      | 32  | -2.20(8.00)          | <del></del>                                      | 20.51       | -4.70 [-9.29, -0.11]  |
| Subtotal (95% CI)  | 31               |                                   | 32  |                      |  | 20.51       | -4.70 [-9.29, -0.11]  |
| Test for heterogeneity: not a  | applicable       |                                   |     |                      |  |             |                       |
| Test for overall effect: $Z = 2$   | .01 (P = 0.04)   |                                   |     |                      |  |             |                       |
| Total (95% CI)   | 125              |                                   | 133 |                      | •  | 100.00      | 0.84 [-1.24, 2.92]    |
| Test for heterogeneity: Chi <sup>2</sup>                                   | = 7.05, df = 2 ( | P = 0.03), I <sup>2</sup> = 71.6% |     |                      | -  |             |                       |
| Test for overall effect: $Z = 0$   | 70 (P = 0.43)    |                                   |     |                      |  |             |                       |

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PHYSICAL ACTIVITY Analyses for adults

Review: Comparison: Outcome: 11 Physical activity, diet, and behaviour therapy vs information 25 Change in DBP in mmHg at 12 months

| Study or sub-category   | N                       | Combined<br>Mean (SD)             | N   | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------------------------|-----------------------------------|-----|--------------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo                                  | w fat                   |                                   |     |                          |                       |             |                       |
| Lindahl 1999  | 93                      | -3.20(7.41)                       | 93  | -0.80(7.41)              | <del></del> -         | 63.24       | -2.40 [-4.53, -0.27]  |
| Narayan 1998  | 45                      | 1.10(8.30)                        | 45  | -1.00(8.30)              | <del></del>           | 24.39       | 2.10 [-1.33, 5.53]    |
| Subtotal (95% CI)   | 138                     |                                   | 138 |                          | <b>*</b>              | 87.63       | -1.15 [-2.96, 0.66]   |
| Test for heterogeneity: Chi                                   | $i^2 = 4.77$ , df = 1 ( | P = 0.03), I <sup>2</sup> = 79.0% |     |                          |                       |             |                       |
| Test for overall effect: Z =                                  | 1.24 (P = 0.21)         |                                   |     |                          |                       |             |                       |
| 02 VLCD   |                         |                                   |     |                          |                       |             |                       |
| Wing 1998   | 28                      | -1.00(10.20)                      | 29  | 4.90(8.20)               | <del></del>           | 12.37       | -5.90 [-10.71, -1.09] |
| Subtotal (95% CI)   | 28                      |                                   | 29  |                          |                       | 12.37       | -5.90 [-10.71, -1.09] |
| Test for heterogeneity: not                                   | applicable              |                                   |     |                          |                       |             |                       |
| Test for overall effect: Z = 2                                | 2.40 (P = 0.02)         |                                   |     |                          |                       |             |                       |
| Total (95% CI)  | 166                     |                                   | 167 |                          | •                     | 100.00      | -1.74 [-3.43, -0.04]  |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = 2 |                         | P = 0.02), I <sup>2</sup> = 75.2% |     |                          |                       |             |                       |
|   |                         |                                   |     |                          | -10 -5 0 5            | 10          |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 11 Physical activity, diet, and behaviour therapy vs information 26 Change in DBP in mmHg at 24 months Comparison:

Outcome:

| Study or sub-category          | N               | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |     | WMD (fix<br>95% C |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|------------------------|----|----------------------|-----|-------------------|---|-------------|-----------------------|
| 01 VLCD                        |                 |                        |    |                      |     |                   |   |             |                       |
| Wing 1998                      | 32              | -0.20(10.50)           | 31 | 2.00(8.00)           | _   |                   | _ | 100.00      | -2.20 [-6.80, 2.40]   |
| Subtotal (95% CI)              | 32              |                        | 31 |                      | -   | <u> </u>          | - | 100.00      | -2.20 [-6.80, 2.40]   |
| Test for heterogeneity: not a  | applicable      |                        |    |                      |     |                   |   |             |                       |
| Test for overall effect: Z = 0 | 0.94 (P = 0.35) |                        |    |                      |     |                   |   |             |                       |
| Total (95% CI)                 | 32              |                        | 31 |                      | -   |                   | - | 100.00      | -2.20 [-6.80, 2.40]   |
| Test for heterogeneity: not    | applicable      |                        |    |                      |     |                   |   |             |                       |
| Test for overall effect: Z = 0 | 0.94 (P = 0.35) |                        |    |                      |     |                   |   |             |                       |
|                                |                 |                        |    |                      | -10 | -5 0              | 5 | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults 11 Physical activity, diet, and behaviour therapy vs information 27 Change in SBP in mmHg at 6 months Review: Comparison:

| Study or sub-category  | N     | Treatment<br>Mean (SD)               | N   | Control<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI  |
|--|-------|--------------------------------------|-----|----------------------|-------|-----------------------|-------------|------------------------|
| 01 600 kcal/day deficit or lo  | w fat |                                      |     |                      |       |                       |             |                        |
| Mayer-Davis 2004   | 49    | -3.31(12.70)                         | 56  | -9.52(12.70)         |       |                       | 35.31       | 6.21 [1.34, 11.08]     |
| Narayan 1998   | 45    | 2.50(12.70)                          | 45  | 5.20(12.70)          |       | <del></del>           | 30.40       | -2.70 [-7.95, 2.55]    |
| Subtotal (95% CI)  | 94    |                                      | 101 |                      |       |                       | 65.71       | 2.09 [-1.48, 5.66]     |
| Test for heterogeneity: Chi <sup>2</sup><br>Test for overall effect: Z = 1             |       | P = 0.01), I <sup>2</sup> = 83.2%    |     |                      |       |                       |             |                        |
| 02 VLCD  |       |                                      |     |                      |       |                       |             |                        |
| Wing 1998  | 31    | -12.30(9.50)                         | 32  | -2.00(10.50)         | ←—    |                       | 34.29       | -10.30 [-15.24, -5.36] |
| Subtotal (95% CI)  | 31    |                                      | 32  |                      |       |                       | 34.29       | -10.30 [-15.24, -5.36] |
| Test for heterogeneity: not a<br>Test for overall effect: Z = 4                        |       | )                                    |     |                      |       |                       |             |                        |
| Total (95% CI) Test for heterogeneity: Chi <sup>2</sup> Test for overall effect: Z = 1 |       | (P < 0.0001), I <sup>2</sup> = 90.8% | 133 |                      |       |                       | 100.00      | -2.16 [-5.05, 0.73]    |
|  |       |                                      |     |                      | -10 - | 5 0 5                 | 10          |                        |

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PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome: 11 Physical activity, diet, and behaviour therapy vs information 28 Change in SBP in mmHg at 12 months

| Study<br>or sub-category                 | N                 | Combined<br>Mean (SD)             | N   | Information<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|-----------------------------------|-----|--------------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lov            | / fat             |                                   |     |                          |                       |             |                       |
| Lindahl 1999                             | 93                | -4.90(14.81)                      | 93  | 1.30(10.79)              | <del></del>           | 53.52       | -6.20 [-9.92, -2.48]  |
| Narayan 1998                             | 45                | 6.00(12.70)                       | 45  | 4.10(12.70)              | -                     | 26.96       | 1.90 [-3.35, 7.15]    |
| Subtotal (95% CI)                        | 138               |                                   | 138 |                          |                       | 80.48       | -3.49 [-6.52, -0.45]  |
| Test for heterogeneity: Chi <sup>2</sup> | = 6.09, df = 1 (I | P = 0.01), I <sup>2</sup> = 83.6% |     |                          |                       |             |                       |
| Test for overall effect: $Z = 2$         | .25 (P = 0.02)    |                                   |     |                          |                       |             |                       |
| 02 VLCD                                  |                   |                                   |     |                          |                       |             |                       |
| Wing 1998                                | 30                | -2.90(14.20)                      | 29  | 1.10(9.60)               | <del></del>           | 19.52       | -4.00 [-10.17, 2.17]  |
| Subtotal (95% CI)                        | 30                |                                   | 29  |                          |                       | 19.52       | -4.00 [-10.17, 2.17]  |
| est for heterogeneity: not a             | pplicable         |                                   |     |                          |                       |             |                       |
| Test for overall effect: Z = 1           | .27 (P = 0.20)    |                                   |     |                          |                       |             |                       |
| Total (95% CI)                           | 168               |                                   | 167 |                          |                       | 100.00      | -3.59 [-6.31, -0.86]  |
| Test for heterogeneity: Chi2             | = 6.11, df = 2 (I | P = 0.05), I <sup>2</sup> = 67.3% |     |                          | -                     |             |                       |
| Test for overall effect: $Z = 2$         | .58 (P = 0.010)   |                                   |     |                          |                       |             |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 11 Physical activity, diet, and behaviour therapy vs information 29 Change in SBP in mmHg at 24 months Comparison:

Outcome:

| Study or sub-category            | N             | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |       | WMD (fixed<br>95% CI | d) Weigi<br>% | ` ,                     |
|----------------------------------|---------------|------------------------|----|----------------------|-------|----------------------|---------------|-------------------------|
| 01 VLCD                          |               |                        |    |                      |       |                      |               |                         |
| Wing 1998                        | 32            | -4.80(15.00)           | 31 | -1.50(12.00)         |       | _                    |               | 00 -3.30 [-10.00, 3.40] |
| Subtotal (95% CI)                | 32            |                        | 31 |                      | -     |                      |               | 00 -3.30 [-10.00, 3.40] |
| Test for heterogeneity: not ap   | oplicable     |                        |    |                      |       |                      |               |                         |
| Test for overall effect: Z = 0.9 | 97 (P = 0.33) |                        |    |                      |       |                      |               |                         |
| Total (95% CI)                   | 32            |                        | 31 |                      |       |                      |               | 00 -3.30 [-10.00, 3.40] |
| Test for heterogeneity: not ap   | oplicable     |                        |    |                      |       |                      |               |                         |
| Test for overall effect: Z = 0.9 | 97 (P = 0.33) |                        |    |                      |       |                      |               |                         |
| -                                |               |                        |    |                      | -10 - | 5 0                  | 5 10          |                         |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: Comparison:

PHYSICAL ACTIVITY Analyses for adults 12 Physical activity, diet, and behaviour therapy vs diet

Outcome: 01 Weight change in kg at 6 months

| Study or sub-category        | N               | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|------------------------------|-----------------|-----------------------|----|-------------------|-----|-----------------------|----------|-----------------------|
| 01 600kcal/day deficit or lo | w fat           |                       |    |                   |     |                       |          |                       |
| Blonk 1994                   | 27              | -2.90(6.74)           | 26 | -1.20(6.25)       |     |                       | 100.00   | -1.70 [-5.20, 1.80]   |
| Subtotal (95% CI)            | 27              |                       | 26 |                   |     |                       | 100.00   | -1.70 [-5.20, 1.80]   |
| Test for heterogeneity: not  | applicable      |                       |    |                   |     |                       |          |                       |
| Test for overall effect: Z = | 0.95 (P = 0.34) |                       |    |                   |     |                       |          |                       |
| Total (95% CI)               | 27              |                       | 26 |                   |     |                       | 100.00   | -1.70 [-5.20, 1.80]   |
| Test for heterogeneity: not  | applicable      |                       |    |                   |     | _                     |          |                       |
| Test for overall effect: Z = |                 |                       |    |                   |     |                       |          |                       |
|                              |                 |                       |    |                   | -10 | -5 0                  | 5 10     |                       |

PHYSICAL ACTIVITY Analyses for adults

12 Physical activity, diet, and behaviour therapy vs diet 02 Weight change in kg at 12 months Comparison: Outcome:

| Study or sub-category            | N               | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) |      |             | MD (fixed)<br>95% CI |           | Weight % | WMD (fixed)<br>95% CI |
|----------------------------------|-----------------|-----------------------|----|-------------------|------|-------------|----------------------|-----------|----------|-----------------------|
| 01 600kcal/day deficit or lov    | w fat           |                       |    |                   |      |             |                      |           |          |                       |
| Blonk 1994                       | 27              | -2.74(6.69)           | 26 | -2.07(6.50)       |      |             |                      |           | 100.00   | -0.67 [-4.22, 2.88]   |
| Subtotal (95% CI)                | 27              |                       | 26 |                   |      | -           |                      |           | 100.00   | -0.67 [-4.22, 2.88]   |
| Test for heterogeneity: not a    | applicable      |                       |    |                   |      |             |                      |           |          |                       |
| Test for overall effect: $Z = 0$ | 0.37 (P = 0.71) |                       |    |                   |      |             |                      |           |          |                       |
| Total (95% CI)                   | 27              |                       | 26 |                   |      |             |                      |           | 100.00   | -0.67 [-4.22, 2.88]   |
| Test for heterogeneity: not a    | applicable      |                       |    |                   |      |             |                      |           |          |                       |
| Test for overall effect: Z = 0   | • •             |                       |    |                   |      |             |                      |           |          |                       |
|                                  |                 |                       |    |                   | -10  | -5          | Ö                    | 5         | 10       |                       |
|                                  |                 |                       |    |                   | Favo | urs treatme | nt Favours           | s control |          |                       |

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PHYSICAL ACTIVITY Analyses for adults

12 Physical activity, diet, and behaviour therapy vs diet 03 Weight change in kg at 18 months Comparison:

Outcome:

| Study or sub-category          | N               | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |   |
|--------------------------------|-----------------|-----------------------|----|-------------------|-----|-----------------------|-------------|-----------------------|---|
| 01 600kcal/day deficit or lo   | w fat           |                       |    |                   |     |                       |             |                       |   |
| Blonk 1994                     | 27              | -3.14(6.80)           | 26 | -1.08(6.22)       |     | <del></del>           | 100.00      | -2.06 [-5.57, 1.45]   |   |
| Subtotal (95% CI)              | 27              |                       | 26 |                   |     |                       | 100.00      | -2.06 [-5.57, 1.45]   |   |
| Test for heterogeneity: not    | applicable      |                       |    |                   |     | _                     |             |                       |   |
| Test for overall effect: Z = 1 | 1.15 (P = 0.25) |                       |    |                   |     |                       |             |                       |   |
| Total (95% CI)                 | 27              |                       | 26 |                   |     |                       | 100.00      | -2.06 [-5.57, 1.45]   |   |
| Test for heterogeneity: not    | applicable      |                       |    |                   |     | _                     |             |                       |   |
| Test for overall effect: Z = 1 | 1.15 (P = 0.25) |                       |    |                   |     |                       |             |                       |   |
|                                |                 |                       |    |                   | -10 | -5 0 5                | 10          |                       | _ |

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

12 Physical activity, diet, and behaviour therapy vs diet 04 Weight change in kg at 24 months Comparison:

Outcome:

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| Study or sub-category                         | N              | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----------------|-----------------------|----|-------------------|-------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low f               | fat            |                       |    |                   |       |                       |             |                       |
| Blonk 1994                                    | 27             | -3.50(6.91)           | 26 | -2.10(6.51)       | -     | <del></del>           | 100.00      | -1.40 [-5.01, 2.21]   |
| Subtotal (95% CI)                             | 27             |                       | 26 |                   | -     |                       | 100.00      | -1.40 [-5.01, 2.21]   |
| Test for heterogeneity: not ap                | plicable       |                       |    |                   |       |                       |             |                       |
| Test for overall effect: $Z = 0.7$            | 6 (P = 0.45)   |                       |    |                   |       |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not ap | 27<br>plicable |                       | 26 |                   | -     |                       | 100.00      | -1.40 [-5.01, 2.21]   |
| Test for overall effect: $Z = 0.7$            | 6 (P = 0.45)   |                       |    |                   |       |                       |             |                       |
|   |                |                       |    |                   | -10 - | 5 0 5                 | 10          |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults
12 Physical activity, diet, and behaviour therapy vs diet Comparison:

Outcome: 05 Weight change over time

| Study<br>or sub-category | N  | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------|----|-----------------------|----|-------------------|----|-----------------------|-------------|-----------------------|
| Blonk 1994 6 months      | 27 | -2.90(6.74)           | 26 | -1.20(6.25)       |    |                       | 33.72       | -1.70 [-5.20, 1.80]   |
| Blonk 1994 12 months     | 27 | -2.74(6.69)           | 26 | -2.07(6.50)       |    | <del></del>           | 32.72       | -0.67 [-4.22, 2.88]   |
| Blonk 1994 18 months     | 27 | -3.14(6.80)           | 26 | -1.08(6.22)       |    | <del>. •</del>        | 33.56       | -2.06 [-5.57, 1.45]   |
|                          |    |                       |    |                   | 10 |                       | 5 40        |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 12 Physical activity, diet, and behaviour therapy vs diet 06 Change in total cholesterol in mmol/l at 12 months Outcome:

| Study or sub-category   | N               | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) |        | WMD (fixed)<br>95% CI  | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------------|-----------------------|----|-------------------|--------|------------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo  | w fat           |                       |    |                   |        |                        |             |                       |
| Blonk 1994  | 27              | -0.20(5.97)           | 26 | 0.10(5.94)        | ←      |                        | 100.00      | -0.30 [-3.51, 2.91]   |
| Subtotal (95% CI)   | 27              |                       | 26 |                   |        |                        | 100.00      | -0.30 [-3.51, 2.91]   |
| Test for heterogeneity: not   | applicable      |                       |    |                   |        |                        |             |                       |
| Test for overall effect: $Z = 0$  | 0.18 (P = 0.85) |                       |    |                   |        |                        |             |                       |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 0 |                 |                       | 26 |                   |        |                        | 100.00      | -0.30 [-3.51, 2.91]   |
|   |                 |                       |    |                   | -1     | -0.5 0 0.5             | 5 1         |                       |
|   |                 |                       |    |                   | Favour | s treatment Favours of | control     |                       |

Review: Comparison:

PHYSICAL ACTIVITY Analyses for adults 12 Physical activity, diet, and behaviour therapy vs diet 07 Change in %HbA1c at 12 months

Outcome:

| Study or sub-category               | N        | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) |       | WMD (fixed<br>95% CI | ) Weight %   | WMD (fixed)<br>95% CI |
|-------------------------------------|----------|-----------------------|----|-------------------|-------|----------------------|--------------|-----------------------|
| 01 600kcal/day deficit or low fat   |          |                       |    |                   |       | _                    |              |                       |
| Blonk 1994                          | 27       | -0.39(2.58)           | 26 | -0.01(2.58)       | ←     | _                    | 100.00       | -0.38 [-1.77, 1.01]   |
| Subtotal (95% CI)                   | 27       |                       | 26 |                   |       |                      | 100.00       | -0.38 [-1.77, 1.01]   |
| Test for heterogeneity: not applic  | cable    |                       |    |                   |       |                      |              |                       |
| Test for overall effect: Z = 0.54 ( | P = 0.59 |                       |    |                   |       |                      |              |                       |
| Total (95% CI)                      | 27       |                       | 26 |                   |       |                      | 100.00       | -0.38 [-1.77, 1.01]   |
| Test for heterogeneity: not applic  | cable    |                       |    |                   |       |                      |              |                       |
| Test for overall effect: Z = 0.54 ( |          |                       |    |                   |       |                      |              |                       |
|                                     |          |                       |    |                   | -1    | -0.5 0               | 0.5 1        |                       |
|                                     |          |                       |    |                   | Favou | rs treatment Fav     | ours control |                       |

PHYSICAL ACTIVITY Analyses for adults

12 Physical activity, diet, and behaviour therapy vs diet 08 Change in %HbA1c at 18 months Comparison:

Outcome:

| Study or sub-category             | N            | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|--------------|-----------------------|----|-------------------|----|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fa  | at           |                       |    |                   |    |                       |             |                       |
| Blonk 1994                        | 27           | -0.30(2.58)           | 26 | -0.10(2.58)       | ←  |                       | 100.00      | -0.20 [-1.59, 1.19]   |
| Subtotal (95% CI)                 | 27           |                       | 26 |                   |    |                       | 100.00      | -0.20 [-1.59, 1.19]   |
| Test for heterogeneity: not app   | plicable     |                       |    |                   |    |                       |             |                       |
| Test for overall effect: Z = 0.28 | 8 (P = 0.78) |                       |    |                   |    |                       |             |                       |
| Total (95% CI)                    | 27           |                       | 26 |                   |    |                       | 100.00      | -0.20 [-1.59, 1.19]   |
| Test for heterogeneity: not app   | plicable     |                       |    |                   |    |                       |             |                       |
| Test for overall effect: Z = 0.28 | 8 (P = 0.78) |                       |    |                   |    |                       |             |                       |
|                                   |              |                       |    |                   | -1 | -0.5 0 0.5            | i 1         |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

12 Physical activity, diet, and behaviour therapy vs diet 09 Change in %HbA1c at 24 months Comparison:

Outcome:

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| Study or sub-category                          | N              | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--|----------------|-----------------------|----|-------------------|-----------------------|----------|-----------------------|
| 01 600kcal/day deficit or low fa               | at             |                       |    |                   |                       |          |                       |
| Blonk 1994                                     | 27             | -0.01(2.58)           | 26 | 0.40(2.58)        | - <del></del> -       | 100.00   | -0.41 [-1.80, 0.98]   |
| Subtotal (95% CI)                              | 27             |                       | 26 |                   | <b>→</b>              | 100.00   | -0.41 [-1.80, 0.98]   |
| Test for heterogeneity: not app                | olicable       |                       |    |                   | 1                     |          |                       |
| Test for overall effect: $Z = 0.58$            | B (P = 0.56)   |                       |    |                   |                       |          |                       |
| Total (95% CI) Test for heterogeneity: not app | 27<br>blicable |                       | 26 |                   | <b>+</b>              | 100.00   | -0.41 [-1.80, 0.98]   |
| Test for overall effect: Z = 0.58              | 3 (P = 0.56)   |                       |    |                   |                       |          |                       |
|  |                |                       |    | -                 | 10 -5 0               | 5 10     |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 12 Physical activity, diet, and behaviour therapy vs diet 10 Change in %HbA1c at 6 months Comparison:

Outcome:

| Study<br>or sub-category  | N  | Combined<br>Mean (SD) | N  | Diet<br>Mean (SD) |     | WMD (f<br>95% |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|-------------------|-----|---------------|---|-------------|-----------------------|
| Blonk 1994  | 27 | -1.00(2.70)           | 26 | -0.10(2.70)       |     | -             |   | 100.00      | -0.90 [-2.35, 0.55]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                       | 26 |                   |     | •             |   | 100.00      | -0.90 [-2.35, 0.55]   |
|   |    |                       |    |                   | -10 | -5 0          | 5 | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults Review: Comparison:

13 Physical activity, diet, and behaviour therapy vs behaviour therapy 01 Weight change in kg at 12 weeks

Outcome:

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|-----------------------|-----|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low f                                  | at |                       |    |                       |     |                       |             |                       |
| Bacon 2002   | 23 | -3.70(4.70)           | 29 | 0.70(2.30)            | _   | _                     | 100.00      | -4.40 [-6.50, -2.30]  |
| Subtotal (95% CI)  | 23 |                       | 29 |                       | <   |                       | 100.00      | -4.40 [-6.50, -2.30]  |
| Test for heterogeneity: not appress for overall effect: Z = 4.13 |    | )                     |    |                       |     |                       |             |                       |
| Total (95% CI)   | 23 |                       | 29 |                       | •   | •                     | 100.00      | -4.40 [-6.50, -2.30]  |
| Test for heterogeneity: not appress for overall effect: Z = 4.12 |    | )                     |    |                       |     |                       |             |                       |
|  |    |                       |    |                       | -10 | -5 0                  | 5 10        |                       |

PHYSICAL ACTIVITY Analyses for adults 13 Physical activity, diet, and behaviour therapy vs behaviour therapy 02 Weight change in kg at 24 weeks Review: Comparison:

Outcome:

| Study<br>or sub-category     | N                 | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |       |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|-------------------|-----------------------|----|-----------------------|-------|-------------|----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo | ow fat            |                       |    |                       |       |             |                      |             |                       |
| Bacon 2002                   | 23                | -4.60(6.50)           | 29 | 0.50(3.40)            | _     | _           |                      | 100.00      | -5.10 [-8.03, -2.17]  |
| Subtotal (95% CI)            | 23                |                       | 29 |                       | -     | •           |                      | 100.00      | -5.10 [-8.03, -2.17]  |
| Test for heterogeneity: not  | t applicable      |                       |    |                       |       | _           |                      |             |                       |
| Test for overall effect: Z = | 3.41 (P = 0.0006) | )                     |    |                       |       |             |                      |             |                       |
| Total (95% CI)               | 23                |                       | 29 |                       | 4     |             |                      | 100.00      | -5.10 [-8.03, -2.17]  |
| Test for heterogeneity: not  | t applicable      |                       |    |                       |       |             |                      |             |                       |
| Test for overall effect: Z = | 3.41 (P = 0.0006) | )                     |    |                       |       |             |                      |             |                       |
|                              |                   |                       |    |                       | -10   | -5          | 0 5                  | 10          |                       |
|                              |                   |                       |    |                       | Favou | urs treatme | nt Favours co        | ontrol      |                       |

PHYSICAL ACTIVITY Analyses for adults

13 Physical activity, diet, and behaviour therapy vs behaviour therapy Comparison:

03 Weight change in kg at 12 months Outcome:

| Study or sub-category        | N                | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|------------------|-----------------------|----|-----------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or lo | ow fat           |                       |    |                       |                       |             |                       |
| Bacon 2002                   | 23               | -5.90(6.30)           | 29 | -0.10(4.80)           | <del></del>           | 100.00      | -5.80 [-8.91, -2.69]  |
| Subtotal (95% CI)            | 23               |                       | 29 |                       |                       | 100.00      | -5.80 [-8.91, -2.69]  |
| Test for heterogeneity: not  | t applicable     |                       |    |                       |                       |             |                       |
| Test for overall effect: Z = | 3.65 (P = 0.0003 | 5)                    |    |                       |                       |             |                       |
| Total (95% CI)               | 23               |                       | 29 |                       |                       | 100.00      | -5.80 [-8.91, -2.69]  |
| Test for heterogeneity: not  | t applicable     |                       |    |                       |                       |             |                       |
| Test for overall effect: Z = | 3.65 (P = 0.0003 | )                     |    |                       |                       |             |                       |
|                              |                  |                       |    |                       | -10 -5 0 5            | 10          |                       |

Favours treatment Favours control

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Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: 13 Physical activity, diet, and behaviour therapy vs behaviour therapy

04 Weight change over time Outcome:

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| Study or sub-category | N  | Combined<br>Mean (SD) | N  | BT<br>Mean (SD) |     |    | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------|----|-----------------------|----|-----------------|-----|----|-----------------|-------------|-----------------------|
| Bacon 12 weeks        | 23 | -3.70(4.70)           | 29 | 0.70(2.30)      |     |    |                 | 50.90       | -4.40 [-6.50, -2.30]  |
| Bacon 24 weeks        | 23 | -4.60(6.50)           | 29 | 0.50(3.40)      | _   |    |                 | 26.02       | -5.10 [-8.03, -2.17]  |
| Bacon 12 months       | 23 | -5.90(6.30)           | 29 | -0.10(4.80)     |     | -  |                 | 23.08       | -5.80 [-8.91, -2.69]  |
|                       |    |                       |    |                 | -10 | -5 | 0 5             | 10          |                       |

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome: 13 Physical activity, diet, and behaviour therapy vs behaviour therapy 05 Change in LDL cholesterol in mmol/l at 12 weeks

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|-----------------------|-----|-----------------------|----------|-----------------------|
| Bacon 2002   | 23 | -0.29(0.74)           | 29 | 0.07(0.74)            |     | =                     | 100.00   | -0.36 [-0.76, 0.04]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                       | 29 |                       |     |                       | 100.00   | -0.36 [-0.76, 0.04]   |
|  |    |                       |    |                       | -10 | -5 0 5                | 10       |                       |

PHYSICAL ACTIVITY Analyses for adults

13 Physical activity, diet, and behaviour therapy vs behaviour therapy 06 Change in LDL cholesterol in mmol/l at 24 weeks Comparison: Outcome:

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |      | V          | VMD (fixed)<br>95% CI |         | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|-----------------------|------|------------|-----------------------|---------|-------------|-----------------------|
| Bacon 2002   | 23 | -0.10(0.74)           | 29 | 0.17(0.74)            |      |            | •                     |         | 100.00      | -0.27 [-0.67, 0.13]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                       | 29 |                       |      |            |                       |         | 100.00      | -0.27 [-0.67, 0.13]   |
|  |    |                       |    |                       | -10  | -5         | 0                     | 5 1     | 0           |                       |
|  |    |                       |    |                       | Favo | urs treatm | ent Favours           | control |             |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 13 Physical activity, diet, and behaviour therapy vs behaviour therapy 07 Change in LDL cholesterol in mmol/l at 12 months Comparison:

| Study or sub-category                      | N               | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |     |    | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----------------|-----------------------|----|-----------------------|-----|----|-----------------|---|-------------|-----------------------|
| Bacon 2002                                 | 23              | -0.31(0.74)           | 29 | -0.23(0.74)           |     | -  |                 |   | 100.00      | -0.08 [-0.48, 0.32]   |
| Total (95% CI) Test for heterogeneity: not |                 |                       | 29 |                       |     | •  |                 |   | 100.00      | -0.08 [-0.48, 0.32]   |
| Test for overall effect: Z =               | 0.39 (P = 0.70) |                       |    |                       | -10 | -5 | 0               | 5 | 10          |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults
13 Physical activity, diet, and behaviour therapy vs behaviour therapy Comparison:

08 Change in SBP in mmHg at 12 weeks

| Study or sub-category   | N  | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |          |             | MD (fixed)<br>95% CI |           | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|-----------------------|----------|-------------|----------------------|-----------|-------------|-----------------------|
| Bacon 2002  | 23 | -1.70(12.70)          | 29 | 2.70(12.70)           | <b>←</b> |             |                      |           | 100.00      | -4.40 [-11.35, 2.55]  |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                       | 29 |                       |          |             |                      |           | 100.00      | -4.40 [-11.35, 2.55]  |
|   |    |                       |    |                       | -10      | -5          | Ö                    | 5         | 10          |                       |
|   |    |                       |    |                       | Favo     | urs treatme | ent Favour           | s control |             |                       |

PHYSICAL ACTIVITY Analyses for adults

13 Physical activity, diet, and behaviour therapy vs behaviour therapy 09 Change in SBP in mmHg at 24 weeks Comparison:

Outcome:

| Study or sub-category   | N  | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |     | WMD (fixed<br>95% CI | )   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|-----------------------|-----|----------------------|-----|-------------|-----------------------|
| Bacon 2002  | 23 | -7.80(12.70)          | 29 | -5.20(12.70)          |     | -                    |     | 100.00      | -2.60 [-9.55, 4.35]   |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                       | 29 |                       |     |                      | -   | 100.00      | -2.60 [-9.55, 4.35]   |
| '   |    |                       |    |                       | -10 | -5 0                 | 5 1 | 0           |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults

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Comparison: Outcome: 13 Physical activity, diet, and behaviour therapy vs behaviour therapy 10 Change in SBP in mmHg at 12 months

| Study or sub-category   | N  | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |          |    | D (fixed)<br>5% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|-----------------------|----------|----|--------------------|---|-------------|-----------------------|
| Bacon 2002  | 23 | -8.20(12.70)          | 29 | -4.50(12.70)          | <b>←</b> |    | +-                 |   | 100.00      | -3.70 [-10.65, 3.25]  |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 1 |    |                       | 29 |                       |          |    |                    |   | 100.00      | -3.70 [-10.65, 3.25]  |
|   |    |                       |    | •                     | -10      | -5 | 0                  | 5 | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults 13 Physical activity, diet, and behaviour therapy vs behaviour therapy 11 Change in DBP in mmHg at 12 weeks Comparison:

Outcome:

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |       |              | ID (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|-----------------------|-------|--------------|----------------------|-------------|-----------------------|
| Bacon 2002   | 23 | 0.00(8.30)            | 29 | 1.40(8.30)            |       |              | <del> </del>         | 100.00      | -1.40 [-5.94, 3.14]   |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0. |    |                       | 29 |                       |       |              |                      | 100.00      | -1.40 [-5.94, 3.14]   |
|  |    |                       |    |                       | -10   | -5           | 0 5                  | 10          |                       |
|  |    |                       |    |                       | Favou | urs treatmen | t Favours co         | ntrol       |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults
13 Physical activity, diet, and behaviour therapy vs behaviour therapy Comparison:

Outcome: 12 Change in DBP in mmHg at 24 weeks

| Study<br>or sub-category  | N  | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |     |    | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|-----------------------|-----|----|-----------------|---|-------------|-----------------------|
| Bacon 2002  | 23 | -2.20(8.30)           | 29 | -1.50(8.30)           |     | -  | -               |   | 100.00      | -0.70 [-5.24, 3.84]   |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0 |    |                       | 29 |                       |     |    |                 |   | 100.00      | -0.70 [-5.24, 3.84]   |
|   |    |                       |    |                       | -10 | -5 | Ö               | 5 | 10          |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults
13 Physical activity, diet, and behaviour therapy vs behaviour therapy Comparison:

Outcome: 13 Change in DBP in mmHg at 12 months

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | BT alone<br>Mean (SD) |     |    | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|-----------------------|-----|----|-----------------|---|-------------|-----------------------|
| Bacon 2002   | 23 | -1.80(8.30)           | 29 | -0.50(8.30)           |     | -  |                 |   | 100.00      | -1.30 [-5.84, 3.24]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                       | 29 |                       |     |    |                 |   | 100.00      | -1.30 [-5.84, 3.24]   |
|  |    |                       |    |                       | -10 | -5 | Ö               | 5 | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 14 Physical activity, diet and behaviour therapy vs physical activity

Outcome: 01 Weight change in kg at 18 months

| Study or sub-category  | N  | Activity and BT<br>Mean (SD) | N  | Activity<br>Mean (SD) |      |               | D (fixed)<br>5% CI |         | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|------------------------------|----|-----------------------|------|---------------|--------------------|---------|-------------|-----------------------|
| Messier 2004   | 76 | -5.20(7.37)                  | 80 | -3.46(6.89)           |      | -             | +                  |         | 100.00      | -1.74 [-3.98, 0.50]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                              | 80 |                       |      | •             |                    |         | 100.00      | -1.74 [-3.98, 0.50]   |
| •  |    |                              |    |                       | -10  | -5            | Ö                  | 5       | 10          |                       |
|  |    |                              |    |                       | Eavo | ire troatmont | Envoure            | control |             |                       |

PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome: 15 Physical activity, diet, and behaviour therapy vs diet and BT 01 Weight change in kg at 2 months

| -10.10(3.70)<br>-10.90(3.40) | 7  | -11.40(3.50)                 |  |                              |   |
|------------------------------|----|------------------------------|--|------------------------------|---|
|                              | 7  | =11 40(3 50)                 |  |                              |   |
| -10.90(3.40)                 |    |                              | <del>-   -</del>   | 34.32                        | 1.30 [-1.74, 4.34]  |
|                              | 7  | -11.40(3.50)                 | <del></del>  | 33.92                        | 0.50 [-2.56, 3.56]  |
| -10.00(3.90)                 | 7  | -11.40(3.50)                 | <del></del> _  | 31.76                        | 1.40 [-1.76, 4.56]  |
|                              | 21 |                              | <b>*</b>   | 100.00                       | 1.06 [-0.72, 2.84]  |
| $l = 0.91$ ), $l^2 = 0\%$    |    |                              |  |                              |   |
| ,                            |    |                              |  |                              |   |
|                              | 21 |                              |  | 100.00                       | 1.06 [-0.72, 2.84]  |
| $l = 0.91$ ), $l^2 = 0\%$    |    |                              |  |                              |   |
| •                            |    |                              |  |                              |   |
|                              | ,  | = 0.91), I <sup>2</sup> = 0% | = 0.91), I <sup>2</sup> = 0%<br>= 0.91), I <sup>2</sup> = 0% | = 0.91), I <sup>2</sup> = 0% | = 0.91), I <sup>2</sup> = 0%  21 = 0.91), I <sup>2</sup> = 0% |

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 15 Physical activity, diet, and behaviour therapy vs diet and BT

02 Weight change in kg at 10 weeks Outcome:

| Study or sub-category  | N            | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------|-----------------------|----|--------------------------|--------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low f  | at           |                       |    |                          |        |                       |             |                       |
| Wing 1988  | 13           | -9.30(8.55)           | 15 | -5.60(7.50)              |        | <del></del>           | 100.00      | -3.70 [-9.70, 2.30]   |
| Subtotal (95% CI)  | 13           |                       | 15 |                          |        |                       | 100.00      | -3.70 [-9.70, 2.30]   |
| Test for heterogeneity: not ap   | plicable     |                       |    |                          |        |                       |             |                       |
| Test for overall effect: Z = 1.2   | 1 (P = 0.23) |                       |    |                          |        |                       |             |                       |
| Total (95% CI)   | 13           |                       | 15 |                          |        |                       | 100.00      | -3.70 [-9.70, 2.30]   |
| Test for heterogeneity: not approximately Test for overall effect: Z = 1.2 |              |                       |    |                          |        |                       |             |                       |
|  |              |                       |    |                          | -10 -5 | 0 5                   | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: Comparison:

PHYSICAL ACTIVITY Analyses for adults
15 Physical activity, diet, and behaviour therapy vs diet and BT

03 Weight change in kg at 4 months

| Study or sub-category   | N         | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------|-----------------------|----|--------------------------|-----|-----------------------|-------------|-----------------------|
| 01 VLCD   |           |                       |    |                          |     |                       |             |                       |
| Sikand 1988   | 11        | -21.80(12.08)         | 10 | -17.50(10.87)            | ←   |                       | 100.00      | -4.30 [-14.12, 5.52]  |
| Subtotal (95% CI)   | 11        |                       | 10 |                          |     |                       | 100.00      | -4.30 [-14.12, 5.52]  |
| Test for heterogeneity: not applie                                      | cable     |                       |    |                          |     |                       |             |                       |
| Test for overall effect: Z = 0.86 (                                     | P = 0.39) |                       |    |                          |     |                       |             |                       |
| Total (95% CI)  | 11        |                       | 10 |                          |     |                       | 100.00      | -4.30 [-14.12, 5.52]  |
| Test for heterogeneity: not applied Test for overall effect: Z = 0.86 ( |           |                       |    |                          |     |                       |             |                       |
|   |           |                       |    |                          | -10 | -5 0 5                | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 04 Weight change in kg at 6 months Comparison: Outcome:

| Study<br>or sub-category  | N  | Combined<br>Mean (SD)   | N  | Diet and BT<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-------------------------|----|--------------------------|--------|-----------------------|-------------|-----------------------|
| 01 VLCD   |    |                         |    |                          |        |                       |             |                       |
| Wadden 1998 aerobic   | 21 | -15.80(6.80)            | 7  | -17.70(5.70)             |        |                       | 20.55       | 1.90 [-3.23, 7.03]    |
| Wadden 1998 mixed   | 17 | -18.60(7.30)            | 7  | -17.70(5.70)             | _      |                       | 18.09       | -0.90 [-6.37, 4.57]   |
| Wadden 1998 strength  | 18 | -17.80(8.80)            | 7  | -17.70(5.70)             |        |                       | 15.73       | -0.10 [-5.96, 5.76]   |
| Wing 1998   | 31 | -10.30(7.70)            | 35 | -9.10(6.40)              |        | <del></del>           | 45.63       | -1.20 [-4.64, 2.24]   |
| Subtotal (95% CI)   | 87 |                         | 56 |                          |        |                       | 100.00      | -0.34 [-2.66, 1.99]   |
| Test for heterogeneity: $Chi^2 = $<br>Test for overall effect: $Z = 0.2$    |    | $(P = 0.80), I^2 = 0\%$ |    |                          |        |                       |             |                       |
| Total (95% CI)  | 87 |                         | 56 |                          |        |                       | 100.00      | -0.34 [-2.66, 1.99]   |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 0.2 |    | $(P = 0.80), I^2 = 0\%$ |    |                          |        |                       |             |                       |
|   |    |                         |    |                          | -10    | -5 0 5                | 10          |                       |
|   |    |                         |    |                          | Favour | treatment Favoure co  | ontrol      |                       |

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PHYSICAL ACTIVITY Analyses for adults 15 Physical activity, diet, and behaviour therapy vs diet and BT 05 Weight change in kg at 12 months Comparison: Outcome:

| Study or sub-category                      | N              | Combined<br>Mean (SD)           | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----------------|---------------------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low for          | at             |                                 |    |                          |                       |             |                       |
| Foreyt 1993                                | 27             | -8.13(8.24)                     | 29 | -6.32(7.70)              | <del></del>           | 24.72       | -1.81 [-5.99, 2.37]   |
| Wing 1988                                  | 13             | -7.90(8.15)                     | 15 | -3.80(6.99)              |                       | 13.47       | -4.10 [-9.77, 1.57]   |
| Subtotal (95% CI)                          | 40             |                                 | 44 |                          |                       | 38.19       | -2.62 [-5.98, 0.75]   |
| Test for heterogeneity: Chi <sup>2</sup> = | 0.41, df = 1   | $P = 0.52$ , $I^2 = 0\%$        |    |                          |                       |             |                       |
| Test for overall effect: Z = 1.52          | 2 (P = 0.13)   |                                 |    |                          |                       |             |                       |
| 02 VLCD                                    |                |                                 |    |                          |                       |             |                       |
| Wadden 1998 aerobic                        | 21             | -13.50(9.10)                    | 7  | -15.30(5.30)             | <del>-   •</del>      | - 14.16     | 1.80 [-3.73, 7.33]    |
| Wadden 1998 mixed                          | 17             | -16.60(9.80)                    | 7  | -15.30(5.30)             |                       | 11.66       | -1.30 [-7.39, 4.79]   |
| Wadden 1998 strength                       | 18             | -17.30(10.30)                   | 7  | -15.30(5.30)             |                       | 11.38       | -2.00 [-8.17, 4.17]   |
| Wing 1998                                  | 30             | -7.40(9.70)                     | 33 | -5.50(6.90)              | -                     | 24.61       | -1.90 [-6.09, 2.29]   |
| Subtotal (95% CI)                          | 86             |                                 | 54 |                          |                       | 61.81       | -0.96 [-3.60, 1.69]   |
| Test for heterogeneity: Chi <sup>2</sup> = | 1.27, $df = 3$ | $(P = 0.74), I^2 = 0\%$         |    |                          |                       |             |                       |
| Test for overall effect: $Z = 0.7$         | 1 (P = 0.48)   |                                 |    |                          |                       |             |                       |
| Total (95% CI)                             | 126            |                                 | 98 |                          |                       | 100.00      | -1.59 [-3.67, 0.49]   |
| Test for heterogeneity: Chi <sup>2</sup> = | 2.25, $df = 5$ | (P = 0.81), I <sup>2</sup> = 0% |    |                          | -                     |             |                       |
| Test for overall effect: $Z = 1.50$        | O (P = 0.13)   |                                 |    |                          |                       |             |                       |
|  |                |                                 |    |                          | -10 -5 0 5            | 10          |                       |

Review: PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 06 Weight change in kg at 18 months

Comparison: Outcome:

| Study or sub-category                | N         | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |     | WMD (fixed<br>95% CI | d) Weight % | WMD (fixed)<br>95% CI |
|--------------------------------------|-----------|-----------------------|----|--------------------------|-----|----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fat    |           |                       |    |                          |     |                      |             |                       |
| Messier 2004                         | 76        | -5.20(7.37)           | 82 | -4.61(7.22)              |     | _                    | 100.00      | -0.59 [-2.87, 1.69]   |
| Subtotal (95% CI)                    | 76        |                       | 82 |                          |     |                      | 100.00      | -0.59 [-2.87, 1.69]   |
| Test for heterogeneity: not applic   | able      |                       |    |                          |     |                      |             |                       |
| Test for overall effect: Z = 0.51 (F | P = 0.61) |                       |    |                          |     |                      |             |                       |
| Total (95% CI)                       | 76        |                       | 82 |                          |     |                      | 100.00      | -0.59 [-2.87, 1.69]   |
| Test for heterogeneity: not applic   | able      |                       |    |                          |     | -                    |             |                       |
| Test for overall effect: Z = 0.51 (F | P = 0.61) |                       |    |                          |     |                      |             |                       |
|                                      |           |                       |    |                          | -10 | -5 0                 | 5 10        |                       |

Favours treatment Favours control

Favours treatment Favours control

Review:

PHYSICAL ACTIVITY Analyses for adults 15 Physical activity, diet, and behaviour therapy vs diet and BT 07 Weight change in kg at 24 months Comparison:

| Study<br>or sub-category  | N              | Combined<br>Mean (SD)          | N  | Diet and BT<br>Mean (SD) |              | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----------------|--------------------------------|----|--------------------------|--------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fa  | at             |                                |    |                          |              |                       |             |                       |
| Foreyt 1993   | 21             | -2.20(6.70)                    | 15 | 0.90(7.70)               |              | -                     | 21.64       | -3.10 [-7.94, 1.74]   |
| Subtotal (95% CI)   | 21             |                                | 15 |                          |              |                       | 21.64       | -3.10 [-7.94, 1.74]   |
| Test for heterogeneity: not app   |                |                                |    |                          |              |                       |             |                       |
| Test for overall effect: $Z = 1.26$   | 6 (P = 0.21)   |                                |    |                          |              |                       |             |                       |
| 02 VLCD   |                |                                |    |                          |              |                       |             |                       |
| Sikand 1988   | 7              | -9.10(9.20)                    | 8  | -0.80(7.40)              | <del></del>  | <del></del>           | 6.96        | -8.30 [-16.83, 0.23]  |
| Wadden 1998 aerobic   | 21             | -8.50(8.20)                    | 7  | -6.90(6.30)              |              | <del></del>           | 14.85       | -1.60 [-7.44, 4.24]   |
| Wadden 1998 mixed   | 17             | -8.60(10.70)                   | 7  | -6.90(6.30)              |              | -                     | 10.62       | -1.70 [-8.60, 5.20]   |
| Wadden 1998 strength  | 18             | -10.10(10.00)                  | 7  | -6.90(6.30)              |              | -                     | 11.74       | -3.20 [-9.77, 3.37]   |
| Wing 1998   | 32             | -2.50(8.40)                    | 35 | -2.10(7.60)              | -            | <del></del>           | 34.18       | -0.40 [-4.25, 3.45]   |
| Subtotal (95% CI)   | 95             |                                | 64 |                          | -            |                       | 78.36       | -1.92 [-4.47, 0.62]   |
| Test for heterogeneity: Chi <sup>2</sup> = 3                                      | 2.91, df = 4 ( | P = 0.57), I <sup>2</sup> = 0% |    |                          |              | -                     |             |                       |
| Test for overall effect: Z = 1.48   | 3 (P = 0.14)   | •                              |    |                          |              |                       |             |                       |
| Total (95% CI)  | 116            |                                | 79 |                          | -            |                       | 100.00      | -2.18 [-4.43, 0.07]   |
| Test for heterogeneity: Chi <sup>2</sup> = 3<br>Test for overall effect: Z = 1.90 |                | P = 0.69), I <sup>2</sup> = 0% |    |                          |              |                       |             |                       |
|   |                |                                |    |                          | -10 -5       | 0 5                   | 10          |                       |
|   |                |                                |    |                          | Favours trea | atment Favours co     | ntrol       |                       |

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Outcome:

Review: PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 08 Weight change over time Comparison:

Outcome:

| Study<br>or sub-category          | N          | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|-----------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 Foreyt - 600kcal deficit or lo | w fat      |                       |    |                          |                       |             |                       |
| Foreyt 1993 12months              | 27         | -8.13(8.24)           | 29 | -6.32(7.70)              | <del></del>           | 57.19       | -1.81 [-5.99, 2.37]   |
| Foreyt 1993 24months              | 21         | -2.20(6.70)           | 15 | 0.90(7.70)               |                       | 42.81       | -3.10 [-7.94, 1.74]   |
| 02 Wing 1988 - 600kcal deficit    | or low fat |                       |    |                          |                       |             |                       |
| Wing 1988 10 weeks                | 13         | -9.30(8.55)           | 15 | -5.60(7.50)              | <del></del>           | 47.16       | -3.70 [-9.70, 2.30]   |
| Wing 1988 12 months               | 13         | -7.90(8.15)           | 15 | -3.80(6.99)              | <del></del>           | 52.84       | -4.10 [-9.77, 1.57]   |
| 03 Sikand - VLCD                  |            |                       |    |                          |                       |             |                       |
| Sikand 1988 4 months              | 11         | -21.80(12.08)         | 10 | -17.50(10.87)            | <b>←</b>              | 43.02       | -4.30 [-14.12, 5.52]  |
| Sikand 1988 24months              | 7          | -9.10(9.20)           | 8  | -0.80(7.40)              | <del>&lt; ■</del>     | 56.98       | -8.30 [-16.83, 0.23]  |
| 04 Wadden aerobic - VLCD          |            |                       |    |                          |                       |             |                       |
| Wadden aer 2 months               | 21         | -10.10(3.70)          | 7  | -11.40(3.50)             | <del>-   •</del>      | 51.99       | 1.30 [-1.74, 4.34]    |
| Wadden aer 6 months               | 21         | -15.80(6.80)          | 7  | -17.70(5.70)             | <del></del>           | 18.25       | 1.90 [-3.23, 7.03]    |
| Wadden aer 12 months              | 21         | -13.50(9.10)          | 7  | -15.30(5.30)             | <del>-   •</del>      | 15.69       | 1.80 [-3.73, 7.33]    |
| Wadden aer 24 months              | 21         | -8.50(8.20)           | 7  | -6.90(6.30)              | <del></del>           | 14.07       | -1.60 [-7.44, 4.24]   |
| 05 Wadden mixed - VLCD            |            |                       |    |                          |                       |             |                       |
| Wadden mix 2 months               | 17         | -10.90(3.40)          | 7  | -11.40(3.50)             |                       | 56.82       | 0.50 [-2.56, 3.56]    |
| Wadden mix 6 months               | 17         | -18.60(7.30)          | 7  | -17.70(5.70)             | <del></del>           | 17.76       | -0.90 [-6.37, 4.57]   |
| Wadden mix 12 months              | 17         | -16.60(9.80)          | 7  | -15.30(5.30)             | <del></del>           | 14.29       | -1.30 [-7.39, 4.79]   |
| Wadden mix 24 months              | 17         | -8.60(10.70)          | 7  | -6.90(6.30)              |                       | 11.13       | -1.70 [-8.60, 5.20]   |
| 06 Wadden strength - VLCD         |            |                       |    |                          |                       |             |                       |
| Wadden str 2 months               | 18         | -10.00(3.90)          | 7  | -11.40(3.50)             | <del></del>           | 56.08       | 1.40 [-1.76, 4.56]    |
| Wadden str 6 months               | 18         | -17.80(8.80)          | 7  | -17.70(5.70)             |                       | 16.27       | -0.10 [-5.96, 5.76]   |
| Wadden str 12 months              | 18         | -17.30(10.30)         | 7  | -15.30(5.30)             | <del></del>           | 14.69       | -2.00 [-8.17, 4.17]   |
| Wadden str 24 months              | 18         | -10.10(10.00)         | 7  | -6.90(6.30)              |                       | 12.96       | -3.20 [-9.77, 3.37]   |
| 07 Wing 1998 - VLCD               |            |                       |    |                          |                       |             |                       |
| Wing 1998 6 months                | 31         | -10.30(7.70)          | 35 | -9.10(6.40)              | <del></del>           | 40.44       | -1.20 [-4.64, 2.24]   |
| Wing 1998 12 months               | 30         | -7.40(9.70)           | 33 | -5.50(6.90)              | <del></del>           | 27.23       | -1.90 [-6.09, 2.29]   |
| Wing 1998 24 months               | 32         | -2.50(8.40)           | 35 | -2.10(7.60)              |                       | 32.34       | -0.40 [-4.25, 3.45]   |

Review:

PHYSICAL ACTIVITY Analyses for adults
15 Physical activity, diet, and behaviour therapy vs diet and BT
09 Change in total cholesterol in mmol/l at 6 months

Comparison: Outcome:

| Study or sub-category   | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |     |    | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|--------------------------|-----|----|-----------------|-------------|-----------------------|
| 02 VLCD   |    |                       |    |                          |     |    |                 |             |                       |
| Wing 1998   | 31 | -0.33(0.61)           | 35 | -0.49(0.71)              |     |    |                 | 100.00      | 0.16 [-0.16, 0.48]    |
| Subtotal (95% CI)   | 31 |                       | 35 |                          |     | -  | <u> </u>        | 100.00      | 0.16 [-0.16, 0.48]    |
| Test for heterogeneity: not a Test for overall effect: $Z = 0$              |    |                       |    |                          |     |    |                 |             |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0 |    |                       | 35 |                          |     | ,  | •               | 100.00      | 0.16 [-0.16, 0.48]    |
|   |    |                       |    |                          | -10 | -5 | 0 5             | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults Review: Comparison:

15 Physical activity, diet, and behaviour therapy vs diet and BT 10 Change in total cholesterol in mmol/l at 12 months Outcome:

| Study<br>or sub-category   | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |       |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|--------------------------|-------|-------------|----------------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                          |       |             |                      |             |                       |
| Wing 1998  | 30 | 0.32(0.64)            | 33 | 0.26(0.76)               |       |             |                      | 100.00      | 0.06 [-0.29, 0.41]    |
| Subtotal (95% CI)  | 30 |                       | 33 |                          |       |             | <b>→</b>             | 100.00      | 0.06 [-0.29, 0.41]    |
| Test for heterogeneity: not ap<br>Test for overall effect: Z = 0.3                   |    |                       |    |                          |       |             |                      |             |                       |
| Total (95% CI)<br>Test for heterogeneity: not ap<br>Test for overall effect: Z = 0.3 |    |                       | 33 |                          |       |             | <b>†</b>             | 100.00      | 0.06 [-0.29, 0.41]    |
|  |    |                       |    |                          | -10   | -5          | 0 5                  | 10          |                       |
|  |    |                       |    |                          | Favou | ırs treatme | nt Favours           | control     |                       |

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PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 11 Change in total cholesterol in mmol/l at 24 months Comparison: Outcome:

| Study or sub-category  | N             | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------------|-----------------------|----|--------------------------|-----|-----------------------|-------------|-----------------------|
| 01 VLCD  |               |                       |    |                          |     |                       |             |                       |
| Wing 1998  | 32            | 0.09(0.67)            | 35 | -0.12(0.61)              |     | <u>=</u>              | 100.00      | 0.21 [-0.10, 0.52]    |
| Subtotal (95% CI)  | 32            |                       | 35 |                          |     | <b>▶</b>              | 100.00      | 0.21 [-0.10, 0.52]    |
| Test for heterogeneity: not ap                                     | oplicable     |                       |    |                          |     | ľ                     |             |                       |
| Test for overall effect: Z = 1.3                                   | 34 (P = 0.18) |                       |    |                          |     |                       |             |                       |
| Total (95% CI)   | 32            |                       | 35 |                          |     |                       | 100.00      | 0.21 [-0.10, 0.52]    |
| Test for heterogeneity: not ap<br>Test for overall effect: Z = 1.3 |               |                       |    |                          |     |                       |             |                       |
|  |               |                       |    |                          | -10 | -5 0 5                | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

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15 Physical activity, diet, and behaviour therapy vs diet and BT 12 Change in LDL cholesterol in mmol/l at 6 months Comparison:

Outcome:

| Study or sub-category              | N             | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|---------------|-----------------------|----|--------------------------|-------|-----------------------|-------------|-----------------------|
| 01 VLCD                            |               |                       |    |                          |       |                       |             |                       |
| Wing 1998                          | 31            | -0.13(0.58)           | 35 | -0.32(0.60)              |       | +                     | 100.00      | 0.19 [-0.09, 0.47]    |
| Subtotal (95% CI)                  | 31            |                       | 35 |                          |       |                       | 100.00      | 0.19 [-0.09, 0.47]    |
| Test for heterogeneity: not a      | pplicable     |                       |    |                          |       | _                     |             |                       |
| Test for overall effect: $Z = 1$ . | 31 (P = 0.19) |                       |    |                          |       |                       |             |                       |
| Total (95% CI)                     | 31            |                       | 35 |                          |       |                       | 100.00      | 0.19 [-0.09, 0.47]    |
| Test for heterogeneity: not a      | pplicable     |                       |    |                          |       | 1                     |             |                       |
| Test for overall effect: $Z = 1$ . | 31 (P = 0.19) |                       |    |                          |       |                       |             |                       |
|                                    |               |                       |    |                          | -1 -0 | .5 0 0.5              | 1           |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults
15 Physical activity, diet, and behaviour therapy vs diet and BT Comparison: Outcome:

13 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                          |                       |             |                       |
| Wing 1998  | 30 | 0.14(0.54)            | 33 | 0.12(0.73)               | <del></del>           | 100.00      | 0.02 [-0.30, 0.34]    |
| Subtotal (95% CI)  | 30 |                       | 33 |                          |                       | 100.00      | 0.02 [-0.30, 0.34]    |
| Test for heterogeneity: not ap<br>Test for overall effect: Z = 0.1             |    |                       |    |                          |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 0.1 |    |                       | 33 |                          |                       | 100.00      | 0.02 [-0.30, 0.34]    |

PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 14 Change in LDL cholesterol on mmol/l at 24 months Comparison:

Outcome:

| Study<br>or sub-category   | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                          |                       |             |                       |
| Wing 1998  | 32 | 0.12(0.52)            | 35 | -0.16(0.63)              |                       | 100.00      | 0.28 [0.00, 0.56]     |
| Subtotal (95% CI)  | 32 |                       | 35 |                          |                       | 100.00      | 0.28 [0.00, 0.56]     |
| Test for heterogeneity: not ap<br>Test for overall effect: Z = 1.9             |    |                       |    |                          |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 1.9 |    |                       | 35 |                          |                       | 100.00      | 0.28 [0.00, 0.56]     |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome: 15 Physical activity, diet, and behaviour therapy vs diet and BT 15 Change in HDL cholesterol in mmol/l at 6 months

| Study or sub-category  | N | Combined<br>Mean (SD) | N        | Diet and BT<br>Mean (SD) |                            | O (fixed)<br>5% CI       | Weight % | WMD (fixed)<br>95% CI                    |
|--|---|-----------------------|----------|--------------------------|----------------------------|--------------------------|----------|--|
| 01 VLCD<br>Wing 1998<br>Subtotal (95% CI)<br>Test for heterogeneity: not applica<br>Test for overall effect: Z = 0.98 (P |   | -0.06(0.16)           | 35<br>35 | -0.10(0.17)              |                            | •                        | 100.00   | 0.04 [-0.04, 0.12]<br>0.04 [-0.04, 0.12] |
| Total (95% CI) Test for heterogeneity: not applica Test for overall effect: Z = 0.98 (P                                  |   |                       | 35       |                          |                            | <b>•</b>                 | 100.00   | 0.04 [-0.04, 0.12]                       |
|  |   |                       |          |                          | -1 -0.5<br>Favours control | 0 0.5<br>Favours treatme | 1<br>nt  |  |

PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 16 Change in HDL cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study or sub-category   | N             | Combined<br>Mean (SD)          | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|---------------|--------------------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low   | fat           |                                |    |                          |                       |             |                       |
| Wing 1988   | 13            | 0.06(0.29)                     | 15 | 0.10(0.29)               | <del></del>           | 14.87       | -0.04 [-0.26, 0.18]   |
| Subtotal (95% CI)   | 13            |                                | 15 |                          |                       | 14.87       | -0.04 [-0.26, 0.18]   |
| Test for heterogeneity: not ap  | plicable      |                                |    |                          | 7                     |             |                       |
| Test for overall effect: $Z = 0.3$  | 36 (P = 0.72) |                                |    |                          |                       |             |                       |
| 02 VLCD   |               |                                |    |                          |                       |             |                       |
| Wing 1998   | 30            | 0.12(0.20)                     | 33 | 0.10(0.16)               | <del>-</del>          | 85.13       | 0.02 [-0.07, 0.11]    |
| Subtotal (95% CI)   | 30            |                                | 33 |                          | •                     | 85.13       | 0.02 [-0.07, 0.11]    |
| Test for heterogeneity: not ap  | plicable      |                                |    |                          | ſ                     |             |                       |
| Test for overall effect: $Z = 0.4$  | 14 (P = 0.66) |                                |    |                          |                       |             |                       |
| Total (95% CI)  | 43            |                                | 48 |                          | •                     | 100.00      | 0.01 [-0.07, 0.09]    |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 0.2 |               | P = 0.61), I <sup>2</sup> = 0% |    |                          |                       |             |                       |

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Favours treatment

PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 17 Change in HDL cholesterol in mmol/l at 24 months Comparison:

Diet and BT WMD (fixed) WMD (fixed) Study Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI 01 VLCD Wing 1998 Subtotal (95% CI) 0.02(0.21) 35 35 0.02(0.20) 0.00 [-0.10, 0.10] 0.00 [-0.10, 0.10] 32 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.00 (P = 1.00) Total (95% CI)
Test for heterogeneity: not applicable 100.00 0.00 [-0.10, 0.10] 35 Test for overall effect: Z = 0.00 (P = 1.00)

PHYSICAL ACTIVITY Analyses for adults Review:

15 Physical activity, diet, and behaviour therapy vs diet and BT 18 Change in triglycerides in mmol/l at 6 months Comparison: Outcome:

| Study or sub-category  | N            | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------|-----------------------|----|--------------------------|----|-----------------------|-------------|-----------------------|
| 01 VLCD  |              |                       |    |                          |    |                       |             |                       |
| Wing 1998  | 31           | -0.69(1.45)           | 35 | -0.30(1.45)              | ←  |                       | 100.00      | -0.39 [-1.09, 0.31]   |
| Subtotal (95% CI)  | 31           |                       | 35 |                          | -  |                       | 100.00      | -0.39 [-1.09, 0.31]   |
| Test for heterogeneity: not app                                  | plicable     |                       |    |                          |    |                       |             |                       |
| Test for overall effect: Z = 1.09                                | 9 (P = 0.28) |                       |    |                          |    |                       |             |                       |
| Total (95% CI)   | 31           |                       | 35 |                          |    |                       | 100.00      | -0.39 [-1.09, 0.31]   |
| Test for heterogeneity: not appress for overall effect: Z = 1.09 |              |                       |    |                          |    |                       |             |                       |
|  |              |                       |    |                          | -1 | -0.5 0 0.5            | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 15 Physical activity, diet, and behaviour therapy vs diet and BT

Outcome 19 Change in triglycerides in mmol/Lat 12 months

| Study<br>or sub-category  | N             | Combined<br>Mean (SD)     | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI        | Weight<br>% | WMD (fixed)<br>95% CI |
|---|---------------|---------------------------|----|--------------------------|------------------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low   | fat           |                           |    |                          |                              |             |                       |
| Wing 1988   | 13            | -0.64(0.96)               | 15 | 0.03(0.96)               | <b>←</b>                     | 79.76       | -0.67 [-1.38, 0.04]   |
| Subtotal (95% CI)   | 13            |                           | 15 |                          |                              | 79.76       | -0.67 [-1.38, 0.04]   |
| Test for heterogeneity: not a   | pplicable     |                           |    |                          |                              |             |                       |
| Test for overall effect: $Z = 1$ .  | 84 (P = 0.07) |                           |    |                          |                              |             |                       |
| 02 VLCD   |               |                           |    |                          |                              |             |                       |
| Wing 1998   | 30            | 0.33(1.65)                | 33 | 0.55(3.77)               | <del>-</del>                 | 20.24       | -0.22 [-1.64, 1.20]   |
| Subtotal (95% CI)   | 30            |                           | 33 |                          |                              | 20.24       | -0.22 [-1.64, 1.20]   |
| Test for heterogeneity: not a Test for overall effect: $Z = 0$ .              |               |                           |    |                          |                              |             |                       |
| Total (95% CI)  | 43            |                           | 48 |                          |                              | 100.00      | -0.58 [-1.22, 0.06]   |
| Test for heterogeneity: Chi <sup>2</sup> :<br>Test for overall effect: Z = 1. |               | $P = 0.58$ ), $I^2 = 0\%$ |    |                          |                              |             |                       |
|   |               |                           |    |                          | -1 -0.5 0 0.5                | 1           |                       |
|   |               |                           |    |                          | Favours treatment Favours co | ntrol       |                       |

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PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 20 Change in triglycerides in mmol/l at 24 months Comparison: Outcome:

| Study or sub-category            | N             | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|---------------|-----------------------|----|--------------------------|----|-----------------------|-------------|-----------------------|
| 01 VLCD                          |               |                       |    |                          |    |                       |             |                       |
| Wing 1998                        | 32            | -0.28(1.33)           | 35 | 0.19(2.42)               | ←  |                       | 100.00      | -0.47 [-1.39, 0.45]   |
| Subtotal (95% CI)                | 32            |                       | 35 |                          |    |                       | 100.00      | -0.47 [-1.39, 0.45]   |
| Test for heterogeneity: not ap   | oplicable     |                       |    |                          |    |                       |             |                       |
| Test for overall effect: Z = 1.0 | 00 (P = 0.32) |                       |    |                          |    |                       |             |                       |
| Total (95% CI)                   | 32            |                       | 35 |                          |    |                       | 100.00      | -0.47 [-1.39, 0.45]   |
| Test for heterogeneity: not ap   | oplicable     |                       |    |                          |    |                       |             |                       |
| Test for overall effect: Z = 1.0 | 00 (P = 0.32) |                       |    |                          |    |                       |             |                       |
|                                  |               |                       |    |                          | -1 | -0.5 0 0.5            | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome: 15 Physical activity, diet, and behaviour therapy vs diet and BT 21 Change in fasting plasma glucose in mmol/l at 6 months

| Study or sub-category              | N             | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|---------------|-----------------------|----|--------------------------|------|-----------------------|-------------|-----------------------|
| 01 VLCD                            |               |                       |    |                          |      |                       |             |                       |
| Wing 1998                          | 31            | -0.20(0.40)           | 35 | -0.20(0.40)              |      | _ <del>_</del>        | 100.00      | 0.00 [-0.19, 0.19]    |
| Subtotal (95% CI)                  | 31            |                       | 35 |                          |      | •                     | 100.00      | 0.00 [-0.19, 0.19]    |
| Test for heterogeneity: not a      | pplicable     |                       |    |                          |      | T                     |             |                       |
| Test for overall effect: $Z = 0$ . | 00 (P = 1.00) |                       |    |                          |      |                       |             |                       |
| Total (95% CI)                     | 31            |                       | 35 |                          |      |                       | 100.00      | 0.00 [-0.19, 0.19]    |
| Test for heterogeneity: not a      | pplicable     |                       |    |                          |      | T                     |             |                       |
| Test for overall effect: $Z = 0$ . | 00 (P = 1.00) |                       |    |                          |      |                       |             |                       |
|                                    |               |                       |    |                          | -1 - | 0.5 0 0.5             | 1           |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults
15 Physical activity, diet, and behaviour therapy vs diet and BT Comparison: Outcome: 22 Change in fasting plasma glucose in mmol/l at 12 months

| Study or sub-category                      | N                 | Combined<br>Mean (SD)          | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|--------------------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 600 kcal/day deficit or low             | r fat             |                                |    |                          |                       |             |                       |
| Wood 1988                                  | 13                | -1.70(3.11)                    | 15 | -0.80(3.11)              | <b>4-</b>             | 1.96        | -0.90 [-3.21, 1.41]   |
| Subtotal (95% CI)                          | 13                |                                | 15 |                          |                       | 1.96        | -0.90 [-3.21, 1.41]   |
| Test for heterogeneity: not as             | oplicable         |                                |    |                          |                       |             |                       |
| Test for overall effect: $Z = 0.7$         | 76 (P = 0.45)     |                                |    |                          |                       |             |                       |
| 02 VLCD                                    |                   |                                |    |                          |                       |             |                       |
| Wing 1998                                  | 30                | 0.00(0.50)                     | 33 | 0.20(0.80)               | <del></del>           | 98.04       | -0.20 [-0.53, 0.13]   |
| Subtotal (95% CI)                          | 30                |                                | 33 |                          |                       | 98.04       | -0.20 [-0.53, 0.13]   |
| Test for heterogeneity: not as             | oplicable         |                                |    |                          |                       |             |                       |
| Test for overall effect: Z = 1.2           | 20 (P = 0.23)     |                                |    |                          |                       |             |                       |
| Total (95% CI)                             | 43                |                                | 48 |                          |                       | 100.00      | -0.21 [-0.54, 0.11]   |
| Test for heterogeneity: Chi <sup>2</sup> = | = 0.35, df = 1 (I | P = 0.56), I <sup>2</sup> = 0% |    |                          |                       |             |                       |
| Test for overall effect: Z = 1.3           | 30 (P = 0.19)     |                                |    |                          |                       |             |                       |
|  |                   |                                |    |                          | -1 -0.5 0 0.5         | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review: Comparison:

15 Physical activity, diet, and behaviour therapy vs diet and BT Outcome:

23 Change in fasting plasma glucose in mmol/l at 24 months

| Study<br>or sub-category   | N         | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |      |              | MD (fixed<br>95% CI | ))          | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----------|-----------------------|----|--------------------------|------|--------------|---------------------|-------------|-------------|-----------------------|
| 01 VLCD  |           |                       |    |                          |      |              |                     |             |             |                       |
| Wing 1998  | 32        | 0.50(1.30)            | 35 | 0.30(1.00)               |      |              | _                   |             | 100.00      | 0.20 [-0.36, 0.76]    |
| Subtotal (95% CI)  | 32        |                       | 35 |                          |      | _            |                     |             | 100.00      | 0.20 [-0.36, 0.76]    |
| Test for heterogeneity: not applic   | able      |                       |    |                          |      |              |                     |             |             |                       |
| Test for overall effect: $Z = 0.70$ (F   | P = 0.48) |                       |    |                          |      |              |                     |             |             |                       |
| Fotal (95% CI) Fest for heterogeneity: not applic Fest for overall effect: Z = 0.70 (F |           |                       | 35 |                          |      | -            | +                   |             | 100.00      | 0.20 [-0.36, 0.76]    |
| 1031 101 0 Volum enedt. 2 = 0.70 (1  | - 0.40)   |                       |    |                          |      |              |                     |             | -           |                       |
|  |           |                       |    |                          | -1   | -0.5         | 0                   | 0.5         | 1           |                       |
|  |           |                       |    |                          | Favo | ours treatme | nt Fav              | ours contro | I           |                       |

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PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 24 Change in %HbA1c at 6 months Comparison:

Outcome:

| Study or sub-category          | N               | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|-----------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD                        |                 |                       |    |                          |                       |             |                       |
| Wing 1998                      | 31              | 0.03(0.20)            | 35 | 0.10(0.50)               | — <del>—</del>        | 100.00      | -0.07 [-0.25, 0.11]   |
| Subtotal (95% CI)              | 31              |                       | 35 |                          |                       | 100.00      | -0.07 [-0.25, 0.11]   |
| Test for heterogeneity: not    | applicable      |                       |    |                          | ٦                     |             |                       |
| Test for overall effect: Z = 0 | 0.76 (P = 0.45) |                       |    |                          |                       |             |                       |
| Total (95% CI)                 | 31              |                       | 35 |                          |                       | 100.00      | -0.07 [-0.25, 0.11]   |
| Test for heterogeneity: not    | applicable      |                       |    |                          | ٦                     |             |                       |
| Test for overall effect: Z = 0 | 0.76 (P = 0.45) |                       |    |                          |                       |             |                       |
|                                |                 |                       |    | -                        | 1 -0.5 0 0.5          | 5 1         |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 25 Change in %HbA1c at 12 months Comparison:

Outcome:

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| Study or sub-category                | N         | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |          | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------------|-----------|-----------------------|----|--------------------------|----------|-----------------------|-------------|-----------------------|
| 01 600kcal/day deficit or low fat    |           |                       |    |                          |          |                       |             |                       |
| Wing 1988                            | 13        | -1.40(2.58)           | 15 | -0.80(2.58)              | <b>←</b> |                       | 100.00      | -0.60 [-2.52, 1.32]   |
| Subtotal (95% CI)                    | 13        |                       | 15 |                          |          |                       | 100.00      | -0.60 [-2.52, 1.32]   |
| Test for heterogeneity: not applica  | able      |                       |    |                          |          |                       |             |                       |
| Test for overall effect: Z = 0.61 (P | r = 0.54) |                       |    |                          |          |                       |             |                       |
| Total (95% CI)                       | 13        |                       | 15 |                          |          |                       | 100.00      | -0.60 [-2.52, 1.32]   |
| Test for heterogeneity: not applica  | able      |                       |    |                          |          |                       |             |                       |
| Test for overall effect: Z = 0.61 (P |           |                       |    |                          |          |                       |             |                       |
|                                      |           |                       |    |                          | -1 -0    | 0.5 0 0.5             | 1           |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 15 Physical activity, diet, and behaviour therapy vs diet and BT 26 Change in %HbA1c at 24 months Comparison:

Outcome:

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                          | _                     |             |                       |
| Wing 1998  | 32 | 0.04(1.08)            | 35 | -0.10(0.50)              | <del>-   -  </del>    | 100.00      | 0.14 [-0.27, 0.55]    |
| Subtotal (95% CI)  | 32 |                       | 35 |                          |                       | 100.00      | 0.14 [-0.27, 0.55]    |
| Test for heterogeneity: not applic<br>Test for overall effect: Z = 0.67 (F             |    |                       |    |                          |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not applic Test for overall effect: Z = 0.67 (F |    |                       | 35 |                          |                       | 100.00      | 0.14 [-0.27, 0.55]    |
|  |    |                       |    |                          | -1 -0.5 0 0.5         | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 27 Change in DBP in mmHg at 6 months Comparison:

Outcome:

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |     |    | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|--------------------------|-----|----|----------------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                          |     |    |                      |             |                       |
| Wing 1998  | 31 | -6.90(10.40)          | 35 | -6.20(6.90)              |     |    |                      | 100.00      | -0.70 [-5.02, 3.62]   |
| Subtotal (95% CI)  | 31 |                       | 35 |                          |     |    |                      | 100.00      | -0.70 [-5.02, 3.62]   |
| Test for heterogeneity: not ap<br>Test for overall effect: $Z = 0.3$           |    |                       |    |                          |     |    |                      |             |                       |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 0.3 |    |                       | 35 |                          |     |    |                      | 100.00      | -0.70 [-5.02, 3.62]   |
|  |    |                       |    |                          | -10 | -5 | 0 5                  | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome: 15 Physical activity, diet, and behaviour therapy vs diet and BT 28 Change in DBP in mmHg at 12 months

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |        | WMD (fixed)<br>95% CI | ,          | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|--------------------------|--------|-----------------------|------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                          |        |                       |            |             |                       |
| Wing 1998  | 28 | -1.00(10.20)          | 33 | 3.40(8.10)               |        | -                     | 1          | .00.00      | -4.40 [-9.08, 0.28]   |
| Subtotal (95% CI)  | 28 |                       | 33 |                          |        |                       | 1          | .00.00      | -4.40 [-9.08, 0.28]   |
| Test for heterogeneity: not a Test for overall effect: Z = 1.                |    |                       |    |                          |        |                       |            |             |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 1. |    |                       | 33 |                          | _      |                       | 1          | .00.00      | -4.40 [-9.08, 0.28]   |
|  |    |                       |    |                          | -10    | -5 0                  | 5 10       |             |                       |
|  |    |                       |    |                          | Favour | s treatment Favou     | rs control |             |                       |

PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 29 Change in DBP in mmHg at 24 months Comparison:

Outcome:

| Study or sub-category          | N               | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|-----------------------|----|--------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD                        |                 |                       |    |                          |                       |             |                       |
| Wing 1998                      | 32              | -0.20(10.50)          | 35 | 3.00(7.80)               | <del></del>           | 100.00      | -3.20 [-7.66, 1.26]   |
| Subtotal (95% CI)              | 32              |                       | 35 |                          |                       | 100.00      | -3.20 [-7.66, 1.26]   |
| Test for heterogeneity: not    | applicable      |                       |    |                          |                       |             |                       |
| Test for overall effect: Z = 1 | 1.41 (P = 0.16) |                       |    |                          |                       |             |                       |
| Total (95% CI)                 | 32              |                       | 35 |                          |                       | 100.00      | -3.20 [-7.66, 1.26]   |
| Test for heterogeneity: not    | applicable      |                       |    |                          |                       |             |                       |
| Test for overall effect: Z = 1 | 1.41 (P = 0.16) |                       |    |                          |                       |             |                       |
|                                |                 |                       |    |                          | -10 -5 0 5            | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 30 Change in SBP in mmHg at 6 months Comparison:

Outcome:

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| Study<br>or sub-category            | N          | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-------------------------------------|------------|-----------------------|----|--------------------------|--------|-----------------------|-------------|-----------------------|
| 01 VLCD                             |            |                       |    |                          |        |                       |             |                       |
| Wing 1998                           | 31         | -12.30(9.50)          | 35 | -10.20(9.20)             |        |                       | 100.00      | -2.10 [-6.62, 2.42]   |
| Subtotal (95% CI)                   | 31         |                       | 35 |                          |        |                       | 100.00      | -2.10 [-6.62, 2.42]   |
| Test for heterogeneity: not app     | olicable   |                       |    |                          |        |                       |             |                       |
| Test for overall effect: Z = 0.91   | (P = 0.36) |                       |    |                          |        |                       |             |                       |
| Total (95% CI)                      | 31         |                       | 35 |                          |        |                       | 100.00      | -2.10 [-6.62, 2.42]   |
| est for heterogeneity: not app      | olicable   |                       |    |                          |        |                       |             |                       |
| Test for overall effect: $Z = 0.91$ | (P = 0.36) |                       |    |                          |        |                       |             |                       |
|                                     |            |                       |    |                          | -10 -5 | 0 5                   | 10          |                       |

Review:

Comparison: Outcome:

PHYSICAL ACTIVITY Analyses for adults 15 Physical activity, diet, and behaviour therapy vs diet and BT 31 Change in SBP in mmHg at 12 months

| Study or sub-category            | N            | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |     | WMD (fixed<br>95% CI | )    | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|--------------|-----------------------|----|--------------------------|-----|----------------------|------|-------------|-----------------------|
| 01 VLCD                          |              |                       |    |                          |     |                      |      |             |                       |
| Wing 1998                        | 30           | -2.90(14.20)          | 33 | 1.30(8.30)               | ←   |                      |      | 100.00      | -4.20 [-10.02, 1.62]  |
| Subtotal (95% CI)                | 30           |                       | 33 |                          |     |                      |      | 100.00      | -4.20 [-10.02, 1.62]  |
| Test for heterogeneity: not ap   | plicable     |                       |    |                          |     |                      |      |             |                       |
| Test for overall effect: Z = 1.4 | 2 (P = 0.16) |                       |    |                          |     |                      |      |             |                       |
| Total (95% CI)                   | 30           |                       | 33 |                          |     |                      |      | 100.00      | -4.20 [-10.02, 1.62]  |
| Test for heterogeneity: not ap   | plicable     |                       |    |                          |     |                      |      |             |                       |
| Test for overall effect: Z = 1.4 | 2 (P = 0.16) |                       |    |                          |     |                      |      |             |                       |
| -                                |              |                       |    |                          | -10 | -5 0                 | 5 10 | 0           |                       |

PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 32 Change in SBP in mmHg at 24 months Comparison:

Outcome:

| Study or sub-category   | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |          | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|--------------------------|----------|-----------------------|-------------|-----------------------|
| 01 VLCD   |    |                       |    |                          |          |                       |             |                       |
| Wing 1998   | 32 | -4.80(15.00)          | 35 | -0.80(9.40)              | <b>←</b> |                       | 100.00      | -4.00 [-10.06, 2.06]  |
| Subtotal (95% CI)   | 32 |                       | 35 |                          |          |                       | 100.00      | -4.00 [-10.06, 2.06]  |
| Test for heterogeneity: not applicable Test for overall effect: Z = 1.29 (P =               |    |                       |    |                          |          |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not applicable to the coverall effect: Z = 1.29 (P = |    |                       | 35 |                          |          |                       | 100.00      | -4.00 [-10.06, 2.06]  |
|   |    |                       |    |                          | -10 -5   | 0 5                   | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome: 15 Physical activity, diet, and behaviour therapy vs diet and BT 33 Change in fasting plasma glucose in mmol/l at 10 weeks

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |       |            | MD (fixed)<br>95% CI |        | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|--------------------------|-------|------------|----------------------|--------|-------------|-----------------------|
| 01 600 kcal/day deficit or low fa  | t  |                       |    |                          |       |            |                      |        |             |                       |
| Wing 1988  | 13 | -3.20(3.11)           | 15 | -3.40(3.11)              |       |            | <del></del>          |        | 100.00      | 0.20 [-2.11, 2.51]    |
| Subtotal (95% CI)  | 13 |                       | 15 |                          |       |            |                      |        | 100.00      | 0.20 [-2.11, 2.51]    |
| Test for heterogeneity: not appli<br>Test for overall effect: Z = 0.17             |    |                       |    |                          |       |            |                      |        |             |                       |
| Total (95% CI) Test for heterogeneity: not appli Test for overall effect: Z = 0.17 |    |                       | 15 |                          |       | •          | <b>+</b>             | :      | 100.00      | 0.20 [-2.11, 2.51]    |
|  |    |                       |    |                          | -10   | -5         | 0 5                  | 10     |             |                       |
|  |    |                       |    |                          | Favou | rs treatme | ent Favours c        | ontrol |             |                       |

PHYSICAL ACTIVITY Analyses for adults

15 Physical activity, diet, and behaviour therapy vs diet and BT 34 Change in %HbA1c at 10 weeks Comparison:

Outcome:

| Study or sub-category              | N            | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) | WMD (<br>95% |        | WMD (fixed)<br>95% CI |
|------------------------------------|--------------|-----------------------|----|--------------------------|--------------|--------|-----------------------|
| 01 600 kcal/day deficit or low     | fat          |                       |    |                          |              |        |                       |
| Wing 1988                          | 13           | -2.40(2.70)           | 15 | -1.90(2.70)              | _            |        | -0.50 [-2.51, 1.51]   |
| Subtotal (95% CI)                  | 13           |                       | 15 |                          | <b>₹</b>     | 100.00 | -0.50 [-2.51, 1.51]   |
| Test for heterogeneity: not ap     | plicable     |                       |    |                          | Ĩ            |        |                       |
| Test for overall effect: Z = 0.4   | 9 (P = 0.63) |                       |    |                          |              |        |                       |
| Total (95% CI)                     | 13           |                       | 15 |                          |              | 100.00 | -0.50 [-2.51, 1.51]   |
| Test for heterogeneity: not ap     | plicable     |                       |    |                          | 1            |        |                       |
| Test for overall effect: $Z = 0.4$ | 9 (P = 0.63) |                       |    |                          |              |        |                       |
|                                    |              |                       |    | -                        | 10 -5 0      | 5 10   |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

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15 Physical activity, diet, and behaviour therapy vs diet and BT 35 Change in DBP in mmHg at 10 weeks Comparison:

Outcome:

| Study<br>or sub-category           | N            | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) | ,      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|--------------|-----------------------|----|--------------------------|--------|-----------------------|-------------|-----------------------|
| 01 600 kcal/day deficit or low     | fat          |                       |    |                          |        |                       |             |                       |
| Wing 1988                          | 13           | 3.00(8.30)            | 15 | 1.00(8.30)               | _      |                       | 100.00      | 2.00 [-4.16, 8.16]    |
| Subtotal (95% CI)                  | 13           |                       | 15 |                          | -      |                       | 100.00      | 2.00 [-4.16, 8.16]    |
| Test for heterogeneity: not ap     | plicable     |                       |    |                          |        |                       |             |                       |
| Test for overall effect: $Z = 0.6$ | 4 (P = 0.52) |                       |    |                          |        |                       |             |                       |
| Total (95% CI)                     | 13           |                       | 15 |                          | _      |                       | 100.00      | 2.00 [-4.16, 8.16]    |
| Test for heterogeneity: not ap     | plicable     |                       |    |                          |        |                       |             |                       |
| Test for overall effect: $Z = 0.6$ | 4 (P = 0.52) |                       |    |                          |        |                       |             |                       |
|                                    |              |                       |    |                          | -10 -5 | 0 5                   | 10          |                       |

Review:

Comparison:

PHYSICAL ACTIVITY Analyses for adults 15 Physical activity, diet, and behaviour therapy vs diet and BT 36 Change in SBP in mmHg at 10 weeks Outcome:

| Study or sub-category                | N       | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |     | WMD (f<br>95% |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------------|---------|-----------------------|----|--------------------------|-----|---------------|---|-------------|-----------------------|
| 01 600 kcal/day deficit or low fat   |         |                       |    |                          |     |               |   |             |                       |
| Wing 1988                            | 13      | -2.00(12.70)          | 15 | -6.00(12.70)             |     |               |   | → 100.00    | 4.00 [-5.43, 13.43]   |
| Subtotal (95% CI)                    | 13      |                       | 15 |                          |     |               |   | 100.00      | 4.00 [-5.43, 13.43]   |
| Test for heterogeneity: not applica  | able    |                       |    |                          |     |               |   |             |                       |
| Test for overall effect: Z = 0.83 (P | = 0.41) |                       |    |                          |     |               |   |             |                       |
| Total (95% CI)                       | 13      |                       | 15 |                          |     |               |   | 100.00      | 4.00 [-5.43, 13.43]   |
| Test for heterogeneity: not applica  | able    |                       |    |                          |     |               |   |             |                       |
| Test for overall effect: Z = 0.83 (P | = 0.41) |                       |    |                          |     |               |   |             |                       |
|                                      |         |                       |    |                          | -10 | -5 0          | 5 | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT 01 Weight change in kg at 6 months Comparison:

Outcome:

| Subtotal (95% CI) 31 33 100.00 -8.20 [-11.27, -5.20]  Test for heterogeneity: not applicable Test for overall effect: Z = 5.24 (P < 0.00001)  Total (95% CI) 31 33 100.00 -8.20 [-11.27, -5.20]  Test for heterogeneity: not applicable | Study or sub-category         | N          | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |   | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------------------------------|------------|-----------------------|----|------------------------------|---|-----------------------|-------------|-----------------------|
| Subtotal (95% CI) 31 33 100.00 -8.20 [-11.27, -5.3]  Test for heterogeneity: not applicable  Total (95% CI) 31 33 100.00 -8.20 [-11.27, -5.3]  Test for heterogeneity: not applicable   | 01 VLCD                       |            |                       |    |                              |   |                       |             |                       |
| Subtotal (95% CI) 31 33  Test for heterogeneity: not applicable Test for overall effect: Z = 5.24 (P < 0.00001)  Total (95% CI) 31 33  100.00 -8.20 [-11.27, -5.3]  100.00 -8.20 [-11.27, -5.3]   | Wing 1998                     | 31         | -10.30(7.70)          | 33 | -2.10(4.20)                  | 4 |                       | 100.00      | -8.20 [-11.27, -5.13] |
| Test for overall effect: Z = 5.24 (P < 0.00001)  Total (95% CI) 31 33 100.00 -8.20 [-11.27, -5.:  Test for heterogeneity: not applicable  | Subtotal (95% CI)             | 31         |                       | 33 |                              |   |                       | 100.00      | -8.20 [-11.27, -5.13] |
| Test for heterogeneity: not applicable  |                               |            | 01)                   |    |                              |   |                       |             |                       |
| Test for overall effect: $Z = 5.24 (P < 0.00001)$   | Test for heterogeneity: not a | applicable | 01)                   | 33 |                              | • |                       | 100.00      | -8.20 [-11.27, -5.13] |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome: 16 Physical activity, diet, and behaviour therapy vs activity and BT 02 Weight change in kg at 12 months

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |       | WMD (fi      | ,            | Weight % | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|------------------------------|-------|--------------|--------------|----------|-----------------------|
| 01 VLCD  |    |                       |    |                              |       |              |              |          |                       |
| Wing 1998  | 30 | -7.40(9.70)           | 28 | -0.40(4.80)                  | ←     | <del></del>  |              | 100.00   | -7.00 [-10.90, -3.10] |
| Subtotal (95% CI)  | 30 |                       | 28 |                              |       |              |              | 100.00   | -7.00 [-10.90, -3.10] |
| Test for heterogeneity: not a Test for overall effect: Z = 3.                |    | )                     |    |                              |       |              |              |          |                       |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 3. |    | )                     | 28 |                              |       |              |              | 100.00   | -7.00 [-10.90, -3.10] |
|  |    |                       |    |                              | -10   | -5 0         | 5            | 10       |                       |
|  |    |                       |    |                              | Favou | rs treatment | Favours conf | trol     |                       |

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT 03 Weight change in kg at 24 months Comparison:

Outcome:

| Study or sub-category          | N               | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|-----------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD                        |                 |                       |    |                              |                       |             |                       |
| Wing 1998                      | 32              | -2.50(8.40)           | 31 | 1.00(4.70)                   | <del></del>           | 100.00      | -3.50 [-6.85, -0.15]  |
| Subtotal (95% CI)              | 32              |                       | 31 |                              |                       | 100.00      | -3.50 [-6.85, -0.15]  |
| Test for heterogeneity: not a  | applicable      |                       |    |                              |                       |             |                       |
| Test for overall effect: Z = 2 | 2.05 (P = 0.04) |                       |    |                              |                       |             |                       |
| Total (95% CI)                 | 32              |                       | 31 |                              |                       | 100.00      | -3.50 [-6.85, -0.15]  |
| Test for heterogeneity: not    | applicable      |                       |    |                              |                       |             |                       |
| Test for overall effect: Z = 2 | 2.05 (P = 0.04) |                       |    |                              |                       |             |                       |
|                                |                 |                       |    |                              | -10 -5 0              | 5 10        |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

Comparison: Outcome: 16 Physical activity, diet, and behaviour therapy vs activity and BT

04 Weight change over time

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| Study<br>or sub-category | N  | Combined<br>Mean (SD) | N  | Diet and BT<br>Mean (SD) |             | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------|----|-----------------------|----|--------------------------|-------------|-----------------------|-------------|-----------------------|
| 01 Wing 1998 - VLCD      |    |                       |    |                          |             |                       |             |                       |
| Wing 1998 6 months       | 31 | -10.30(7.70)          | 33 | -2.10(4.20)              | ←           |                       | 40.70       | -8.20 [-11.27, -5.13] |
| Wing 1998 12 months      | 30 | -7.40(9.70)           | 28 | -0.40(4.80)              | <del></del> |                       | 25.16       | -7.00 [-10.90, -3.10] |
| Wing 1998 24 months      | 32 | -2.50(8.40)           | 31 | 1.00(4.70)               |             |                       | 34.14       | -3.50 [-6.85, -0.15]  |
|                          |    |                       |    |                          | -10 -5      | 0 5                   | 10          |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 16 Physical activity, diet, and behaviour therapy vs activity and BT

Outcome: 05 Change in total cholesterol in mmol/l at 6 months

| Study or sub-category  | N              | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight %    | WMD (fixed)<br>95% CI |
|--|----------------|-----------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |                |                       |    |                              |                       |             |                       |
| Wing 1998  | 31             | -0.33(0.61)           | 33 | 0.12(0.72)                   | <del></del>           | 100.00      | -0.45 [-0.78, -0.12]  |
| Subtotal (95% CI)  | 31             |                       | 33 |                              |                       | 100.00      | -0.45 [-0.78, -0.12]  |
| Test for heterogeneity: not ap   | plicable       |                       |    |                              |                       |             |                       |
| Test for overall effect: $Z = 2.7$   | 70 (P = 0.007) |                       |    |                              |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 2.7 |                |                       | 33 |                              |                       | 100.00      | -0.45 [-0.78, -0.12]  |
| Test for overall effect. Z = 2.7   | 0 (F = 0.007)  |                       |    |                              | 1 05 0 05             | <del></del> |                       |

PHYSICAL ACTIVITY Analyses for adults 16 Physical activity, diet, and behaviour therapy vs activity and BT 06 Change in total cholesterol in mmol/l at 12 months Comparison:

| Study<br>or sub-category  | N          | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------------|-----------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD   |            |                       |    |                              |                       |             |                       |
| Wing 1998   | 30         | 0.32(0.64)            | 28 | 0.36(0.82)                   | <del></del>           | 100.00      | -0.04 [-0.42, 0.34]   |
| Subtotal (95% CI)   | 30         |                       | 28 |                              |                       | 100.00      | -0.04 [-0.42, 0.34]   |
| Test for heterogeneity: not appl  | icable     |                       |    |                              | T                     |             |                       |
| Test for overall effect: Z = 0.21   | (P = 0.84) |                       |    |                              |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not appl Test for overall effect: Z = 0.21 |            |                       | 28 |                              |                       | 100.00      | -0.04 [-0.42, 0.34]   |
|   | (. 2.0.)   |                       |    |                              | -1 -0.5 0 0.5         | <del></del> |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

16 Physical activity, diet, and behaviour therapy vs activity and BT 07 Change in total cholesterol in mmol/l at 24 months Comparison:

Outcome:

| Study<br>or sub-category               | N     | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |      | 1          | WMD (fixed<br>95% CI | i)           | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------|-----------------------|----|------------------------------|------|------------|----------------------|--------------|-------------|-----------------------|
| 01 VLCD                                |       |                       |    |                              |      |            |                      |              |             |                       |
| Wing 1998                              | 32    | 0.09(0.67)            | 31 | 0.33(0.64)                   |      |            | -                    |              | 100.00      | -0.24 [-0.56, 0.08]   |
| Subtotal (95% CI)                      | 32    |                       | 31 |                              |      |            |                      |              | 100.00      | -0.24 [-0.56, 0.08]   |
| Test for heterogeneity: not applicable | е     |                       |    |                              |      |            |                      |              |             |                       |
| Test for overall effect: Z = 1.45 (P = | 0.15) |                       |    |                              |      |            |                      |              |             |                       |
| Total (95% CI)                         | 32    |                       | 31 |                              |      | 4          |                      |              | 100.00      | -0.24 [-0.56, 0.08]   |
| Test for heterogeneity: not applicable | е     |                       |    |                              |      |            |                      |              |             |                       |
| Test for overall effect: Z = 1.45 (P = | 0.15) |                       |    |                              |      |            |                      |              |             |                       |
|  |       |                       |    |                              | -1   | -0.5       | Ö                    | 0.5          | 1           |                       |
|  |       |                       |    |                              | Favo | ure treatr | nent Fav             | ours control |             |                       |

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT 08 Change in LDL cholesterol in mmol/l at 6 months Comparison:

Outcome:

| Study or sub-category          | N               | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|-----------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD                        |                 |                       |    |                              |                       |             |                       |
| Wing 1998                      | 31              | -0.13(0.58)           | 33 | 0.03(0.52)                   | <del></del>           | 100.00      | -0.16 [-0.43, 0.11]   |
| Subtotal (95% CI)              | 31              |                       | 33 |                              |                       | 100.00      | -0.16 [-0.43, 0.11]   |
| Test for heterogeneity: not    | applicable      |                       |    |                              | _                     |             |                       |
| Test for overall effect: Z = 1 | I.16 (P = 0.25) |                       |    |                              |                       |             |                       |
| Total (95% CI)                 | 31              |                       | 33 |                              |                       | 100.00      | -0.16 [-0.43, 0.11]   |
| Test for heterogeneity: not    | applicable      |                       |    |                              |                       |             |                       |
| Test for overall effect: Z = 1 | I.16 (P = 0.25) |                       |    |                              |                       |             |                       |
|                                |                 |                       |    | -                            | 1 -0.5 0 0.5          | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours control Favours treatment

Review: PHYSICAL ACTIVITY Analyses for adults

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16 Physical activity, diet, and behaviour therapy vs activity and BT 09 Change in LDL cholesterol in mmol/l at 12 months Comparison:

Outcome:

| Study or sub-category            | N              | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|----------------|-----------------------|----|------------------------------|-------|-----------------------|-------------|-----------------------|
| 01 VLCD                          |                |                       |    |                              |       |                       |             |                       |
| Wing 1998                        | 30             | 0.14(0.54)            | 28 | 0.15(0.54)                   |       | <del>_</del>          | 100.00      | -0.01 [-0.29, 0.27]   |
| Subtotal (95% CI)                | 30             |                       | 28 |                              |       |                       | 100.00      | -0.01 [-0.29, 0.27]   |
| Test for heterogeneity: not a    | applicable     |                       |    |                              |       | T                     |             |                       |
| Test for overall effect: $Z = 0$ | .07 (P = 0.94) |                       |    |                              |       |                       |             |                       |
| Total (95% CI)                   | 30             |                       | 28 |                              |       |                       | 100.00      | -0.01 [-0.29, 0.27]   |
| Test for heterogeneity: not a    | applicable     |                       |    |                              |       |                       |             |                       |
| Test for overall effect: $Z = 0$ | .07 (P = 0.94) |                       |    |                              |       |                       |             |                       |
|                                  |                |                       |    |                              | -1 -0 | .5 0 0.5              | 1           |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 16 Physical activity, diet, and behaviour therapy vs activity and BT Comparison:

Outcome: 10 Change in LDL cholesterol on mmol/l at 24 months

| Study or sub-category             | N        | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|----------|-----------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD                           |          |                       |    |                              |                       |             |                       |
| Wing 1998                         | 32       | 0.12(0.52)            | 31 | 0.22(0.61)                   | <del></del>           | 100.00      | -0.10 [-0.38, 0.18]   |
| Subtotal (95% CI)                 | 32       |                       | 31 |                              |                       | 100.00      | -0.10 [-0.38, 0.18]   |
| Test for heterogeneity: not app   | olicable |                       |    |                              |                       |             |                       |
| Test for overall effect: Z = 0.70 | P = 0.48 |                       |    |                              |                       |             |                       |
| Total (95% CI)                    | 32       |                       | 31 |                              |                       | 100.00      | -0.10 [-0.38, 0.18]   |
| Test for heterogeneity: not app   | olicable |                       |    |                              |                       |             |                       |
| Test for overall effect: Z = 0.70 | P = 0.48 |                       |    |                              |                       |             |                       |
|                                   |          |                       |    |                              | -1 -0.5 0 0.5         | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT 11 Change in HDL cholesterol in mmol/l at 6 months Comparison:

Outcome:

| Study<br>or sub-category   | N  | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |    |      | ID (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|------------------------------|----|------|---------------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                              |    |      |                     |             |                       |
| Wing 1998  | 31 | -0.06(0.16)           | 33 | 0.02(0.16)                   |    | -    |                     | 100.00      | -0.08 [-0.16, 0.00]   |
| Subtotal (95% CI)  | 31 |                       | 33 |                              |    | -    |                     | 100.00      | -0.08 [-0.16, 0.00]   |
| Test for heterogeneity: not app<br>Test for overall effect: Z = 2.00                   |    |                       |    |                              |    |      |                     |             |                       |
| Total (95% CI)<br>Test for heterogeneity: not app<br>Test for overall effect: Z = 2.00 |    |                       | 33 |                              |    | •    | •                   | 100.00      | -0.08 [-0.16, 0.00]   |
|  |    |                       |    |                              | -1 | -0.5 | 0 0.5               | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome: 16 Physical activity, diet, and behaviour therapy vs activity and BT 12 Change in HDL cholesterol in mmol/l at 12 months

| Study or sub-category   | N  | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |      | WMD (fixed<br>95% CI | l) Weight %    | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|------------------------------|------|----------------------|----------------|-----------------------|
| 01 VLCD   |    |                       |    |                              |      |                      |                |                       |
| Wing 1998   | 30 | 0.12(0.20)            | 28 | 0.16(0.18)                   |      | -                    | 100.00         | -0.04 [-0.14, 0.06]   |
| Subtotal (95% CI)   | 30 |                       | 28 |                              |      | <u> </u>             | 100.00         | -0.04 [-0.14, 0.06]   |
| Test for heterogeneity: not app<br>Test for overall effect: Z = 0.80                |    |                       |    |                              |      |                      |                |                       |
| Total (95% CI) Test for heterogeneity: not app<br>Test for overall effect: Z = 0.80 |    |                       | 28 |                              |      | •                    | 100.00         | -0.04 [-0.14, 0.06]   |
|   |    |                       |    |                              | -1   | -0.5 0               | 0.5 1          |                       |
|   |    |                       |    |                              | Favo | ours control Fav     | ours treatment |                       |

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT 13 Change in HDL cholesterol in mmol/l at 24 months Comparison:

Outcome:

| Study or sub-category  | N          | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------|-----------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |            |                       |    |                              |                       |             |                       |
| Wing 1998  | 32         | 0.02(0.21)            | 31 | 0.05(0.17)                   | <del>-</del>          | 100.00      | -0.03 [-0.12, 0.06]   |
| Subtotal (95% CI)  | 32         |                       | 31 |                              | •                     | 100.00      | -0.03 [-0.12, 0.06]   |
| Test for heterogeneity: not app                                      | licable    |                       |    |                              | 1                     |             |                       |
| Test for overall effect: $Z = 0.62$                                  | (P = 0.53) |                       |    |                              |                       |             |                       |
| Total (95% CI)   | 32         |                       | 31 |                              | •                     | 100.00      | -0.03 [-0.12, 0.06]   |
| Test for heterogeneity: not app<br>Test for overall effect: Z = 0.62 |            |                       |    |                              |                       |             |                       |
|  |            |                       |    |                              | -1 -0.5 0 0.5         | 1           |                       |

Favours control Favours treatment

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

PHYSICAL ACTIVITY Analyses for adults Review:

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Comparison: 16 Physical activity, diet, and behaviour therapy vs activity and BT

Outcome: 14 Change in triglycerides in mmol/l at 6 months

| Study or sub-category          | N              | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |             | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|----------------|-----------------------|----|------------------------------|-------------|-----------------------|-------------|-----------------------|
| 01 VLCD                        |                |                       |    |                              |             |                       |             |                       |
| Wing 1998                      | 31             | -0.69(1.45)           | 33 | 0.12(1.64)                   | <del></del> | <del></del>           | 100.00      | -0.81 [-1.57, -0.05]  |
| Subtotal (95% CI)              | 31             |                       | 33 |                              |             |                       | 100.00      | -0.81 [-1.57, -0.05]  |
| Test for heterogeneity: not a  | applicable     |                       |    |                              |             |                       |             |                       |
| Test for overall effect: Z = 2 | .10 (P = 0.04) |                       |    |                              |             |                       |             |                       |
| Total (95% CI)                 | 31             |                       | 33 |                              |             |                       | 100.00      | -0.81 [-1.57, -0.05]  |
| Test for heterogeneity: not a  | applicable     |                       |    |                              |             |                       |             |                       |
| Test for overall effect: Z = 2 |                |                       |    |                              |             |                       |             |                       |
|                                |                |                       |    |                              | -1 -0       | 0.5 0 0.5             | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: 16 Physical activity, diet, and behaviour therapy vs activity and BT

Outcome: 15 Change in triglycerides in mmol/l at 12 months

| Study or sub-category             | N          | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|-----------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD                           |            |                       |    |                              |                       |             |                       |
| Wing 1998                         | 30         | 0.33(1.65)            | 28 | 0.26(2.19)                   |                       | 100.00      | 0.07 [-0.93, 1.07]    |
| Subtotal (95% CI)                 | 30         |                       | 28 |                              |                       | 100.00      | 0.07 [-0.93, 1.07]    |
| Test for heterogeneity: not appl  | licable    |                       |    |                              |                       |             |                       |
| Test for overall effect: Z = 0.14 | (P = 0.89) |                       |    |                              |                       |             |                       |
| Total (95% CI)                    | 30         |                       | 28 |                              |                       | 100.00      | 0.07 [-0.93, 1.07]    |
| Test for heterogeneity: not appl  | licable    |                       |    |                              |                       |             |                       |
| Test for overall effect: Z = 0.14 | (P = 0.89) |                       |    |                              |                       |             |                       |
|                                   |            |                       |    |                              | -1 -0.5 0 0.5         | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT Comparison:

Outcome: 16 Change in triglycerides in mmol/l at 24 months

| Study or sub-category  | N  | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                              |                       |             |                       |
| Wing 1998  | 32 | -0.28(1.33)           | 31 | 0.33(1.46)                   | <b>←</b>              | 100.00      | -0.61 [-1.30, 0.08]   |
| Subtotal (95% CI)  | 32 |                       | 31 |                              |                       | 100.00      | -0.61 [-1.30, 0.08]   |
| Test for heterogeneity: not ap<br>Test for overall effect: Z = 1.7             |    |                       |    |                              |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 1.7 |    |                       | 31 |                              |                       | 100.00      | -0.61 [-1.30, 0.08]   |
|  |    |                       |    |                              | -1 -0.5 0 0.5         | 5 1         |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome: 16 Physical activity, diet, and behaviour therapy vs activity and BT 17 Change in fasting plasma glucose in mmol/l at 6 months

WMD (fixed) WMD (fixed) Study Combined Activity and BT Weight 95% CI Mean (SD) Mean (SD) 95% CI or sub-category 01 VLCD -0.20 [-0.48, 0.08] -0.20 [-0.48, 0.08] Wing 1998 31 -0.20(0.40) 33 0.00(0.70) 100.00 Subtotal (95% CI) 31 33 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 1.41 (P = 0.16) Total (95% CI) 33 100.00 -0.20 [-0.48, 0.08] Test for heterogeneity: not applicable
Test for overall effect: Z = 1.41 (P = 0.16) -0.5 0.5

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT 18 Change in fasting plasma glucose in mmol/l at 12 months Comparison: Outcome:

| Study or sub-category  | N            | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--|--------------|-----------------------|----|------------------------------|----|-----------------------|----------|-----------------------|
| 01 VLCD  |              |                       |    |                              |    |                       |          |                       |
| Wing 1998  | 30           | 0.00(0.50)            | 28 | 0.10(0.70)                   |    |                       | 100.00   | -0.10 [-0.42, 0.22]   |
| Subtotal (95% CI)  | 30           |                       | 28 |                              |    |                       | 100.00   | -0.10 [-0.42, 0.22]   |
| Test for heterogeneity: not app                                      | licable      |                       |    |                              |    | _                     |          |                       |
| Test for overall effect: Z = 0.62                                    | ? (P = 0.53) |                       |    |                              |    |                       |          |                       |
| Total (95% CI)   | 30           |                       | 28 |                              |    |                       | 100.00   | -0.10 [-0.42, 0.22]   |
| Test for heterogeneity: not app<br>Test for overall effect: Z = 0.62 |              |                       |    |                              |    | . ] .                 |          |                       |
|  |              |                       |    |                              | -1 | -0.5 0 0.             | 5 1      |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

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Comparison: 16 Physical activity, diet, and behaviour therapy vs activity and BT Outcome: 19 Change in fasting plasma glucose in mmol/l at 24 months

| Study or sub-category              | N            | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|------------------------------------|--------------|-----------------------|----|------------------------------|----|-----------------------|----------|-----------------------|
| 01 VLCD                            |              |                       |    |                              |    |                       |          |                       |
| Wing 1998                          | 32           | 0.50(1.30)            | 31 | 0.40(0.90)                   |    |                       | 100.00   | 0.10 [-0.45, 0.65]    |
| Subtotal (95% CI)                  | 32           |                       | 31 |                              |    |                       | 100.00   | 0.10 [-0.45, 0.65]    |
| Test for heterogeneity: not ap     | plicable     |                       |    |                              |    |                       |          |                       |
| Test for overall effect: $Z = 0.3$ | 6 (P = 0.72) |                       |    |                              |    |                       |          |                       |
| Total (95% CI)                     | 32           |                       | 31 |                              |    |                       | 100.00   | 0.10 [-0.45, 0.65]    |
| Test for heterogeneity: not ap     | plicable     |                       |    |                              |    |                       |          |                       |
| Test for overall effect: $Z = 0.3$ | 6 (P = 0.72) |                       |    |                              |    |                       |          |                       |
|                                    |              |                       |    |                              | -1 | -0.5 0                | 0.5 1    |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 16 Physical activity, diet, and behaviour therapy vs activity and BT 20 Change in %HbA1c at 6 months Comparison:

Outcome:

| Study or sub-category            | N            | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |    |      | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|--------------|-----------------------|----|------------------------------|----|------|----------------------|-------------|-----------------------|
| 01 VLCD                          |              |                       |    |                              |    |      |                      |             |                       |
| Wing 1998                        | 31           | 0.03(0.20)            | 33 | 0.10(0.30)                   |    | -    | <del>-</del>         | 100.00      | -0.07 [-0.19, 0.05]   |
| Subtotal (95% CI)                | 31           |                       | 33 |                              |    | •    | •                    | 100.00      | -0.07 [-0.19, 0.05]   |
| Test for heterogeneity: not ap   | plicable     |                       |    |                              |    |      | Ĭ                    |             |                       |
| Test for overall effect: Z = 1.1 | 0 (P = 0.27) |                       |    |                              |    |      |                      |             |                       |
| Total (95% CI)                   | 31           |                       | 33 |                              |    |      |                      | 100.00      | -0.07 [-0.19, 0.05]   |
| Test for heterogeneity: not ap   | plicable     |                       |    |                              |    |      | Ĭ                    |             |                       |
| Test for overall effect: Z = 1.1 | 0 (P = 0.27) |                       |    |                              |    |      |                      |             |                       |
|                                  |              |                       |    |                              | -1 | -0.5 | 0 0.5                | 1           |                       |

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT Comparison:

Outcome: 21 Change in %HbA1c at 24 months

| Study<br>or sub-category   | N  | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|------------------------------|-----------------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                              |                       |             |                       |
| Wing 1998  | 32 | 0.04(1.08)            | 31 | -0.10(0.50)                  | <del></del>           | 100.00      | 0.14 [-0.27, 0.55]    |
| Subtotal (95% CI)  | 32 |                       | 31 |                              |                       | 100.00      | 0.14 [-0.27, 0.55]    |
| Test for heterogeneity: not ap<br>Test for overall effect: Z = 0.6                   |    |                       |    |                              |                       |             |                       |
| Total (95% CI)<br>Test for heterogeneity: not ap<br>Test for overall effect: Z = 0.6 |    |                       | 31 |                              |                       | 100.00      | 0.14 [-0.27, 0.55]    |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome: 16 Physical activity, diet, and behaviour therapy vs activity and BT 22 Change in DBP in mmHg at 6 months

| Study or sub-category                           | N             | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |       |             | MD (fixed)<br>95% CI |           | Weight<br>% | WMD (fixed)<br>95% CI |
|---|---------------|-----------------------|----|------------------------------|-------|-------------|----------------------|-----------|-------------|-----------------------|
| 01 VLCD   |               |                       |    |                              |       |             |                      |           |             |                       |
| Wing 1998                                       | 31            | -6.90(10.40)          | 33 | -1.70(12.20)                 | ←     |             | <del></del>          |           | 100.00      | -5.20 [-10.74, 0.34]  |
| Subtotal (95% CI)                               | 31            |                       | 33 |                              |       |             | _                    |           | 100.00      | -5.20 [-10.74, 0.34]  |
| Test for heterogeneity: not appl                | licable       |                       |    |                              |       |             |                      |           |             |                       |
| Test for overall effect: Z = 1.84               |               |                       |    |                              |       |             |                      |           |             |                       |
| Total (95% CI) Test for heterogeneity: not appl | 31<br>licable |                       | 33 |                              |       |             | -                    |           | 100.00      | -5.20 [-10.74, 0.34]  |
| Test for overall effect: Z = 1.84               |               |                       |    |                              |       |             |                      |           |             |                       |
|   |               |                       |    |                              | -10   | -5          | Ö                    | 5         | 10          |                       |
|   |               |                       |    |                              | Favou | ırs treatme | ent Favour           | s control |             |                       |

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT 23 Change in DBP in mmHg at 12 months Comparison:

Outcome:

| Study or sub-category              | N             | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|---------------|-----------------------|----|------------------------------|-----|-----------------------|-------------|-----------------------|
| 01 VLCD                            |               |                       |    |                              |     |                       |             |                       |
| Wing 1998                          | 28            | -1.00(10.20)          | 28 | 0.90(9.70)                   |     |                       | 100.00      | -1.90 [-7.11, 3.31]   |
| Subtotal (95% CI)                  | 28            |                       | 28 |                              | -   |                       | 100.00      | -1.90 [-7.11, 3.31]   |
| Test for heterogeneity: not a      | pplicable     |                       |    |                              |     |                       |             |                       |
| Test for overall effect: $Z = 0$ . | 71 (P = 0.48) |                       |    |                              |     |                       |             |                       |
| Total (95% CI)                     | 28            |                       | 28 |                              | _   |                       | 100.00      | -1.90 [-7.11, 3.31]   |
| Test for heterogeneity: not a      | pplicable     |                       |    |                              |     |                       |             |                       |
| Test for overall effect: $Z = 0$ . | 71 (P = 0.48) |                       |    |                              |     |                       |             |                       |
|                                    |               |                       |    |                              | -10 | -5 0                  | 5 10        |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: PHYSICAL ACTIVITY Analyses for adults

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16 Physical activity, diet, and behaviour therapy vs activity and BT 24 Change in DBP in mmHg at 24 months Comparison:

Outcome:

| Study or sub-category   | N              | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----------------|-----------------------|----|------------------------------|-----|-----------------------|-------------|-----------------------|
| 01 VLCD   |                |                       |    |                              |     |                       |             |                       |
| Wing 1998   | 32             | -0.20(10.50)          | 31 | 2.00(8.00)                   |     | <del></del>           | 100.00      | -2.20 [-6.80, 2.40]   |
| Subtotal (95% CI)   | 32             |                       | 31 |                              | -   |                       | 100.00      | -2.20 [-6.80, 2.40]   |
| Test for heterogeneity: not a                                   | applicable     |                       |    |                              |     |                       |             |                       |
| Test for overall effect: $Z = 0$                                | .94 (P = 0.35) |                       |    |                              |     |                       |             |                       |
| Total (95% CI)  | 32             |                       | 31 |                              | -   |                       | 100.00      | -2.20 [-6.80, 2.40]   |
| Γest for heterogeneity: not a<br>Γest for overall effect: Z = 0 |                |                       |    |                              |     |                       |             |                       |
|   |                |                       |    |                              | -10 | -5 0 5                | 10          |                       |

Review:

PHYSICAL ACTIVITY Analyses for adults 16 Physical activity, diet, and behaviour therapy vs activity and BT 25 Change in SBP in mmHg at 6 months Comparison:

Outcome:

| Study or sub-category             | N           | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |     | WMD (fix<br>95% C | ,    | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|-------------|-----------------------|----|------------------------------|-----|-------------------|------|-------------|-----------------------|
| 01 VLCD                           |             |                       |    |                              |     |                   |      |             |                       |
| Wing 1998                         | 31          | -12.30(9.50)          | 33 | -2.40(18.90)                 | ←   |                   |      | 100.00      | -9.90 [-17.16, -2.64] |
| Subtotal (95% CI)                 | 31          |                       | 33 |                              |     |                   |      | 100.00      | -9.90 [-17.16, -2.64] |
| Test for heterogeneity: not app   | licable     |                       |    |                              | _   |                   |      |             |                       |
| Test for overall effect: Z = 2.67 | (P = 0.008) |                       |    |                              |     |                   |      |             |                       |
| Total (95% CI)                    | 31          |                       | 33 |                              |     |                   |      | 100.00      | -9.90 [-17.16, -2.64] |
| Test for heterogeneity: not app   | licable     |                       |    |                              |     |                   |      |             |                       |
| Test for overall effect: Z = 2.67 | (P = 0.008) |                       |    |                              |     |                   |      |             |                       |
|                                   |             |                       |    |                              | -10 | -5 0              | 5 10 | 0           |                       |

PHYSICAL ACTIVITY Analyses for adults

16 Physical activity, diet, and behaviour therapy vs activity and BT 26 Change in SBP in mmHg at 12 months Comparison:

Outcome:

| Study<br>or sub-category   | N  | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|------------------------------|-----|-----------------------|-------------|-----------------------|
| 01 VLCD  |    |                       |    |                              |     |                       |             |                       |
| Wing 1998  | 30 | -2.90(14.20)          | 28 | 1.10(15.80)                  | ←   | _                     | 100.00      | -4.00 [-11.75, 3.75]  |
| Subtotal (95% CI)  | 30 |                       | 28 |                              |     |                       | 100.00      | -4.00 [-11.75, 3.75]  |
| Test for heterogeneity: not ap<br>Test for overall effect: Z = 1.0             |    |                       |    |                              |     |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 1.0 |    |                       | 28 |                              |     |                       | 100.00      | -4.00 [-11.75, 3.75]  |
|  |    |                       |    |                              | -10 | -5 0                  | 5 10        |                       |

PHYSICAL ACTIVITY Analyses for adults Review:

Comparison: Outcome: 16 Physical activity, diet, and behaviour therapy vs activity and BT 27 Change in SBP in mmHg at 24 months

| Study or sub-category   | N  | Combined<br>Mean (SD) | N  | Activity and BT<br>Mean (SD) |       | WMD (fi<br>95% ( | ,            | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|------------------------------|-------|------------------|--------------|-------------|-----------------------|
| 01 VLCD   |    |                       |    |                              |       |                  |              |             |                       |
| Wing 1998   | 32 | -4.80(15.00)          | 31 | 0.90(13.90)                  | ←     |                  | _            | 100.00      | -5.70 [-12.84, 1.44]  |
| Subtotal (95% CI)   | 32 |                       | 31 |                              |       |                  | -            | 100.00      | -5.70 [-12.84, 1.44]  |
| Test for heterogeneity: not applic<br>Test for overall effect: Z = 1.57 (             |    |                       |    |                              |       |                  |              |             |                       |
| Total (95% CI) Test for heterogeneity: not applic Test for overall effect: Z = 1.57 ( |    |                       | 31 |                              |       |                  | -            | 100.00      | -5.70 [-12.84, 1.44]  |
|   |    |                       |    |                              | -10   | -5 0             | 5            | 10          |                       |
|   |    |                       |    |                              | Favou | irs treatment    | Favours cont | rol         |                       |

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#### 3.4 **Orlistat**

Review:

Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 01 Weight change in kg at 6 months Comparison: Outcome:

| Study or sub-category                                   | N              | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|---|----------------|------------------------------|-----|-----------------------------|-----|-----------------------|----------|-----------------------|
| 01 Weight reduction                                     |                |                              |     |                             |     |                       |          |                       |
| Derosa 2003   | 25             | -5.10(7.36)                  | 23  | -4.20(7.10)                 |     |                       | 9.59     | -0.90 [-4.99, 3.19]   |
| Hauptman 2000   | 210            | -5.46(7.46)                  | 212 | -1.97(6.47)                 |     | -                     | 90.41    | -3.49 [-4.82, -2.16]  |
| Subtotal (95% CI)                                       | 235            |                              | 235 |                             |     | <u> </u>              | 100.00   | -3.24 [-4.51, -1.97]  |
| Test for overall effect: Z = 5.0  02 Weight maintenance | 01 (P < 0.0000 | 1)                           |     |                             |     |                       |          |                       |
| Hauptman 2000   | 210            | 1.72(6.40)                   | 212 | 1.21(6.26)                  |     | <u> </u>              | 100.00   | 0.51 [-0.70, 1.72]    |
| Subtotal (95% CI)                                       | 210            | . , , , , ,                  | 212 | . , , , , ,                 |     |                       | 100.00   | 0.51 [-0.70, 1.72]    |
| Test for heterogeneity: not as                          | oplicable      |                              |     |                             |     |                       |          |                       |
| Test for overall effect: $Z = 0.8$                      |                |                              |     |                             |     |                       |          |                       |
|   |                |                              |     |                             | -10 | 5 0 5                 | 10       |                       |

Orlistat UPDATE adults only Review:

01 Orlistat 360mg/day + diet vs placebo + diet (all studies)
02 Weight change in kg at 12 months Comparison:

Outcome:

| tudy<br>r sub-category  | N    | Orlistat + diet<br>Mean (SD)      | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------|-----------------------------------|------|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |      |                                   |      |                             |                       |             |                       |
| Bakris 2002   | 267  | -5.40(6.40)                       | 265  | -2.70(6.40)                 |                       | 6.44        | -2.70 [-3.79, -1.61]  |
| Broom 2002a   | 259  | -5.80(8.50)                       | 263  | -2.30(6.40)                 | <del></del>           | 4.56        | -3.50 [-4.79, -2.21]  |
| Davidson 1999   | 657  | -8.76(9.48)                       | 223  | -5.81(10.01)                | <del></del> -         | 3.38        | -2.95 [-4.45, -1.45]  |
| Derosa 2003   | 25   | -8.60(8.35)                       | 23   | -7.60(8.07)                 |                       | 0.35        | -1.00 [-5.65, 3.65]   |
| Finer 2000  | 110  | -3.29(6.85)                       | 108  | -1.31(6.29)                 |                       | 2.50        | -1.98 [-3.73, -0.23]  |
| Hauptman 2000   | 210  | -5.40(7.44)                       | 212  | -1.41(6.31)                 | <del></del>           | 4.39        | -3.99 [-5.31, -2.67]  |
| Hollander 1998  | 156  | -3.84(5.00)                       | 151  | -1.43(5.10)                 | <del></del> -         | 5.97        | -2.41 [-3.54, -1.28]  |
| Kelley 2002   | 266  | -3.89(4.40)                       | 269  | -1.27(4.59)                 | -                     | 13.13       | -2.62 [-3.38, -1.86]  |
| Krempf 2003   | 346  | -5.95(7.60)                       | 350  | -3.05(6.78)                 | <del></del>           | 6.65        | -2.90 [-3.97, -1.83]  |
| Lindgarde 2000  | 190  | -4.20(7.03)                       | 186  | -2.90(6.74)                 | <del></del>           | 3.93        | -1.30 [-2.69, 0.09]   |
| Miles 2002  | 250  | -4.70(4.74)                       | 254  | -1.80(4.78)                 |                       | 11.03       | -2.90 [-3.73, -2.07]  |
| Rossner 2000  | 241  | -8.13(8.22)                       | 236  | -5.23(7.40)                 | <del></del> -         | 3.87        | -2.90 [-4.30, -1.50]  |
| Sjostrom 1998   | 343  | -8.10(8.21)                       | 340  | -3.90(7.02)                 | <del></del>           | 5.81        | -4.20 [-5.35, -3.05]  |
| Swinburn 2005   | 170  | -4.70(7.70)                       | 169  | -0.90(4.20)                 |                       | 4.38        | -3.80 [-5.12, -2.48]  |
| Torgerson 2004  | 1650 | -10.60(8.91)                      | 1637 | -6.20(7.67)                 | -                     | 23.60       | -4.40 [-4.97, -3.83]  |
| Subtotal (95% CI)   | 5140 |                                   | 4686 |                             | <b>♦</b>              | 100.00      | -3.27 [-3.55, -3.00]  |
| Fest for heterogeneity: Chi <sup>2</sup> Fest for overall effect: Z = 23    |      |                                   | %    |                             | ,                     |             |                       |
| 02 Weight maintenance   |      |                                   |      |                             |                       |             |                       |
| Hauptman 2000   | 210  | 2.92(6.74)                        | 212  | 2.49(6.62)                  | <del>-</del> -        | 37.00       | 0.43 [-0.84, 1.70]    |
| Hill 1999   | 113  | 2.62(6.66)                        | 121  | 4.40(7.16)                  | <del></del>           | 19.17       | -1.78 [-3.55, -0.01]  |
| Rossner 2000  | 241  | 2.15(6.52)                        | 236  | 2.17(6.53)                  | <del>-</del>          | 43.83       | -0.02 [-1.19, 1.15]   |
| Subtotal (95% CI)   | 564  |                                   | 569  |                             | <b>•</b>              | 100.00      | -0.19 [-0.97, 0.58]   |
| Γest for heterogeneity: Chi <sup>2</sup><br>Γest for overall effect: Z = 0. |      | P = 0.13), I <sup>2</sup> = 51.1% |      |                             |                       |             |                       |

Favours treatment Favours control

Favours treatment Favours control

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Orlistat UPDATE adults only Review:

01 Orlistat 360mg/day + diet vs placebo + diet (all studies)
03 Weight change in kg at 18 months Comparison:

Outcome:

| Study or sub-category          | N                       | Orlistat + diet<br>Mean (SD)   | N   | Placebo + diet<br>Mean (SD) |       |              | ID (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-------------------------|--------------------------------|-----|-----------------------------|-------|--------------|----------------------|-------------|-----------------------|
| 01 Weight reduction            |                         |                                |     |                             |       |              |                      |             |                       |
| Hauptman 2000                  | 210                     | -3.68(6.96)                    | 212 | -0.02(5.97)                 |       | -            |                      | 40.29       | -3.66 [-4.90, -2.42]  |
| Krempf 2003                    | 346                     | -5.05(7.34)                    | 350 | -1.35(6.30)                 |       | -            |                      | 59.71       | -3.70 [-4.72, -2.68]  |
| Subtotal (95% CI)              | 556                     |                                | 562 |                             |       | •            |                      | 100.00      | -3.68 [-4.47, -2.90]  |
| Test for heterogeneity: Chi    | $^{2}$ = 0.00, df = 1 ( | P = 0.96), I <sup>2</sup> = 0% |     |                             |       | •            |                      |             |                       |
| Test for overall effect: Z = 9 | 9.19 (P < 0.0000        | 1)                             |     |                             |       |              |                      |             |                       |
|                                |                         |                                |     |                             | -10   | -5           | 0 5                  | 10          |                       |
|                                |                         |                                |     |                             | Favou | urs treatmer | t Favours c          | ontrol      |                       |

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Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 04 Weight change at 24 months Comparison:

| Study<br>or sub-category     | N                       | Orlistat + diet<br>Mean (SD)   | N   | Placebo + diet<br>Mean (SD) |       |              | D (fixed)<br>5% CI |         | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|-------------------------|--------------------------------|-----|-----------------------------|-------|--------------|--------------------|---------|-------------|-----------------------|
| 01 Weight reduction          |                         |                                |     |                             |       |              |                    |         |             |                       |
| Hauptman 2000                | 210                     | -2.48(6.62)                    | 212 | 1.08(6.22)                  |       | -            |                    |         | 52.66       | -3.56 [-4.79, -2.33]  |
| Rossner 2000                 | 241                     | -5.98(7.61)                    | 236 | -3.06(6.78)                 |       | -            |                    |         | 47.34       | -2.92 [-4.21, -1.63]  |
| Subtotal (95% CI)            | 451                     |                                | 448 |                             |       | •            |                    |         | 100.00      | -3.26 [-4.15, -2.37]  |
| Test for heterogeneity: Chi  | $^{2}$ = 0.50, df = 1 ( | P = 0.48), I <sup>2</sup> = 0% |     |                             |       | •            |                    |         |             |                       |
| Test for overall effect: Z = | 7.18 (P < 0.0000        | 1)                             |     |                             |       |              |                    |         |             |                       |
|                              | •                       | •                              |     |                             | 10    | <del></del>  | <del>_</del>       | -       | 10          |                       |
|                              |                         |                                |     |                             | -10   | -5           | 0                  | 5       | 10          |                       |
|                              |                         |                                |     |                             | Favoi | irs treatmen | f Favours          | control |             |                       |

Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 05 Weight change in kg at 48 months Comparison: Outcome:

| Study<br>or sub-category         | N              | Orlistat + diet<br>Mean (SD) | N    | Placebo + diet<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|----------------|------------------------------|------|-----------------------------|--------|-----------------------|-------------|-----------------------|
| 01 Weight reduction              |                |                              |      |                             |        |                       |             |                       |
| Torgerson 2004                   | 1650           | -5.80(7.56)                  | 1637 | -3.00(6.76)                 |        | <b>.</b>              | 100.00      | -2.80 [-3.29, -2.31]  |
| Subtotal (95% CI)                | 1650           |                              | 1637 |                             | •      |                       | 100.00      | -2.80 [-3.29, -2.31]  |
| Test for heterogeneity: not ap   | oplicable      |                              |      |                             |        |                       |             |                       |
| Test for overall effect: Z = 11  | .20 (P < 0.000 | 01)                          |      |                             |        |                       |             |                       |
| 02 Weight maintenance            |                |                              |      |                             |        |                       |             |                       |
| Subtotal (95% CI)                | 0              |                              | 0    |                             |        |                       |             | Not estimable         |
| Test for heterogeneity: not ap   | oplicable      |                              |      |                             |        |                       |             |                       |
| Test for overall effect: not app |                |                              |      |                             |        |                       |             |                       |
|                                  |                |                              |      |                             | -10 -5 | 0 5                   | 10          |                       |

Favours treatment Favours control

Orlistat UPDATE adults only

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Comparison: 01 Orlistat 360mg/day + diet vs placebo + diet (all studies)

Outcome: 06 Failure to achieve at least 5% loss of initial body weight at 12 months

| Study or sub-category   | Orlistat + diet<br>n/N                    | Placebo + diet<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|---|---|-----------------------|----------------------|-------------|----------------------|
| 01 Weight loss  |   |                       |                      |             |                      |
| Bakris 2002   | 54/100                                    | 76/100                | -                    | 8.53        | 0.71 [0.57, 0.88]    |
| Broom 2002a   | 44/100                                    | 76/100                |                      | 8.53        | 0.58 [0.45, 0.74]    |
| Davidson 1999   | 34/100                                    | 56/100                | <del></del> -        | 6.29        | 0.61 [0.44, 0.84]    |
| Finer 2000  | 65/100                                    | 79/100                | -                    | 8.87        | 0.82 [0.69, 0.98]    |
| Hauptman 2000   | 49/100                                    | 69/100                |                      | 7.74        | 0.71 [0.56, 0.90]    |
| Hollander 1998  | 51/100                                    | 77/100                | <del></del>          | 8.64        | 0.66 [0.53, 0.83]    |
| Kelley 2002   | 67/100                                    | 87/100                | -                    | 9.76        | 0.77 [0.66, 0.90]    |
| Krempf 2003   | 34/100                                    | 54/100                | <del></del> -        | 6.06        | 0.63 [0.45, 0.87]    |
| Lindgarde 2000  | 46/100                                    | 59/100                |                      | 6.62        | 0.78 [0.60, 1.02]    |
| Miles 2002  | 61/100                                    | 84/100                |                      | 9.43        | 0.73 [0.61, 0.87]    |
| Rossner 2000  | 36/100                                    | 68/100                | <del></del>          | 7.63        | 0.53 [0.39, 0.71]    |
| Sjostrom 1998   | 31/100                                    | 51/100                |                      | 5.72        | 0.61 [0.43, 0.86]    |
| Torgerson 2004  | 27/100                                    | 55/100                | <del></del>          | 6.17        | 0.49 [0.34, 0.71]    |
| Subtotal (95% CI)   | 1300                                      | 1300                  | <b>♦</b>             | 100.00      | 0.67 [0.63, 0.72]    |
| Total events: 599 (Orlistat + o   | diet), 891 (Placebo + diet)               |                       | *                    |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 11. | 17.93, df = 12 (P = 0.12), l <sup>2</sup> | = 33.1%               |                      |             |                      |

Favours treatment Favours control

Orlistat UPDATE adults only Review:

Comparison:

01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 07 Failure to achieve at least 10% loss of initial body weight at 12 months Outcome:

| Study<br>or sub-category         | Orlistat + diet n/N                         | Placebo + diet<br>n/N | RR (fixed)<br>95% CI        | Weight<br>% | RR (fixed)<br>95% CI |
|----------------------------------|---|-----------------------|-----------------------------|-------------|----------------------|
| 01 Weight loss                   |   |                       |                             |             |                      |
| Broom 2002a                      | 80/100                                      | 89/100                | <del>-</del>                | 8.62        | 0.90 [0.80, 1.01]    |
| Davidson 1999                    | 61/100                                      | 75/100                | -                           | 7.27        | 0.81 [0.67, 0.99]    |
| Finer 2000                       | 84/100                                      | 94/100                | =                           | 9.11        | 0.89 [0.81, 0.99]    |
| Hauptman 2000                    | 71/100                                      | 89/100                | -                           | 8.62        | 0.80 [0.69, 0.92]    |
| Hollander 1998                   | 82/100                                      | 91/100                | =                           | 8.82        | 0.90 [0.81, 1.01]    |
| Kelley 2002                      | 90/100                                      | 96/100                | <del>-</del>                | 9.30        | 0.94 [0.87, 1.01]    |
| Krempf 2003                      | 67/100                                      | 75/100                | <del></del> -               | 7.27        | 0.89 [0.75, 1.07]    |
| Lindgarde 2000                   | 81/100                                      | 85/100                | +                           | 8.24        | 0.95 [0.84, 1.08]    |
| Miles 2002                       | 86/100                                      | 96/100                | -                           | 9.30        | 0.90 [0.82, 0.98]    |
| Rossner 2000                     | 62/100                                      | 81/100                | -                           | 7.85        | 0.77 [0.64, 0.92]    |
| Sjostrom 1998                    | 61/100                                      | 82/100                | -                           | 7.95        | 0.74 [0.62, 0.89]    |
| Torgerson 2004                   | 59/100                                      | 79/100                | -                           | 7.66        | 0.75 [0.62, 0.91]    |
| Subtotal (95% CI)                | 1200  | 1200                  | <b>&amp;</b>                | 100.00      | 0.86 [0.82, 0.89]    |
| ,                                | diet), 1032 (Placebo + diet)                |                       | •                           |             |                      |
| ,                                | = 18.42, df = 11 (P = 0.07), I <sup>2</sup> | = 40.3%               |                             |             |                      |
| Test for overall effect: $Z = 7$ |   |                       |                             |             |                      |
|                                  |   | 0.1                   | 0.2 0.5 1 2                 | 5 10        |                      |
|                                  |   | Fav                   | vours treatment Favours con | ntrol       |                      |

Review: Orlistat UPDATE adults only

Comparison: 01 Orlistat 360mg/day + diet vs placebo + diet (all studies)

08 Failure to complete at 12 months

| Study<br>or sub-category           | Orlistat + diet<br>n/N                      | Placebo + diet<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|------------------------------------|---|-----------------------|----------------------|-------------|----------------------|
| 01 Weight loss                     |   |                       |                      |             |                      |
| Bakris 2002                        | 42/100                                      | 61/100                |                      | 13.22       | 0.69 [0.52, 0.91]    |
| Broom 2002a                        | 30/100                                      | 40/100                | <del></del>          | 8.67        | 0.75 [0.51, 1.10]    |
| Davidson 1999                      | 31/100                                      | 41/100                | <del></del>          | 8.88        | 0.76 [0.52, 1.10]    |
| Derosa 2003                        | 7/100                                       | 0/100                 | -                    | 0.11        | 15.00 [0.87, 259.16] |
| Finer 2000                         | 36/100                                      | 42/100                | <del></del>          | 9.10        | 0.86 [0.61, 1.21]    |
| Hauptman 2000                      | 28/100                                      | 42/100                | <del></del>          | 9.10        | 0.67 [0.45, 0.98]    |
| Hollander 1998                     | 15/100                                      | 28/100                | <del></del>          | 6.07        | 0.54 [0.31, 0.94]    |
| Kelley 2002                        | 48/100                                      | 52/100                | <del>-</del>         | 11.27       | 0.92 [0.70, 1.22]    |
| Lindgarde 2000                     | 16/100                                      | 12/100                | <del></del>          | 2.60        | 1.33 [0.67, 2.67]    |
| Miles 2002                         | 35/100                                      | 44/100                | <del></del> +        | 9.53        | 0.80 [0.56, 1.13]    |
| Rossner 2000                       | 26/100                                      | 35/100                | <del></del>          | 7.58        | 0.74 [0.49, 1.14]    |
| Sjostrom 1998                      | 18/100                                      | 24/100                | <del></del>          | 5.20        | 0.75 [0.44, 1.29]    |
| Swinburn 2005                      | 22/100                                      | 19/100                | <del>- </del>        | 4.12        | 1.16 [0.67, 2.00]    |
| Torgerson 2004                     | 10/100                                      | 21/100                | <del></del>          | 4.55        | 0.48 [0.24, 0.96]    |
| Subtotal (95% CI)                  | 1400  | 1400                  | <b>◆</b>             | 100.00      | 0.79 [0.71, 0.88]    |
| Total events: 364 (Orlistat +      | diet), 461 (Placebo + diet)                 |                       | <u> </u>             |             |                      |
| ,                                  | = 15.31, df = 13 (P = 0.29), l <sup>2</sup> | = 15.1%               |                      |             |                      |
| Test for overall effect: $Z = 4$ . |   |                       |                      |             |                      |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review:

Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 09 Change in SBP in mmHg at 6 months Comparison:

Outcome:

| Study or sub-category   | N  | Orlistat + diet<br>Mean (SD) | N  | Placebo + diet<br>Mean (SD) |     | WMD (fixed<br>95% CI | d) | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------------------|----|-----------------------------|-----|----------------------|----|-------------|-----------------------|
| Derosa 2003   | 25 | -2.00(12.70)                 | 23 | -2.00(12.70)                | _   | +                    |    | 100.00      | 0.00 [-7.19, 7.19]    |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0 |    |                              | 23 |                             | -   |                      | _  | 100.00      | 0.00 [-7.19, 7.19]    |
|   |    |                              |    |                             | -10 | -5 0                 | 5  | 10          |                       |

Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 10 Change in DBP in mmHg at 6 months Comparison:

Outcome:

| Study or sub-category  | N  | Orlistat + diet<br>Mean (SD) | N  | Placebo + diet<br>Mean (SD) |     |    | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|------------------------------|----|-----------------------------|-----|----|--------------------|-------------|-----------------------|
| Derosa 2003  | 25 | -1.00(8.30)                  | 23 | 0.00(8.30)                  |     |    | -                  | 100.00      | -1.00 [-5.70, 3.70]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                              | 23 |                             |     |    |                    | 100.00      | -1.00 [-5.70, 3.70]   |
|  |    |                              |    |                             | -10 | -5 | 0 5                | 10          |                       |

3

1

Review: Comparison: Outcome: Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 11 Change in total cholesterol in mmol/l at 12 months

| Study<br>or sub-category   | N                | Orlistat + diet<br>Mean (SD)   | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI                            | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------------|--------------------------------|------|-----------------------------|--|-------------|-----------------------|
|  |                  | . ,                            |      | . ,                         |  |             |                       |
| 01 Weight reduction  |                  |                                |      |                             |  |             |                       |
| Bakris 2002  | 267              | -0.36(0.94)                    | 265  | -0.04(0.79)                 | <del></del> -                                    | 8.91        | -0.32 [-0.47, -0.17]  |
| Broom 2002a  | 259              | -0.12(1.08)                    | 263  | 0.16(1.08)                  | <del></del>                                      | 5.65        | -0.28 [-0.47, -0.09]  |
| Finer 2000   | 110              | -0.05(0.76)                    | 108  | 0.30(0.68)                  | <del></del>                                      | 5.30        | -0.35 [-0.54, -0.16]  |
| Hauptman 2000  | 210              | -0.04(1.08)                    | 212  | 0.30(1.08)                  | <del></del>                                      | 4.57        | -0.34 [-0.55, -0.13]  |
| Hollander 1998   | 156              | -0.05(0.60)                    | 151  | 0.41(0.70)                  | <del></del> -                                    | 9.09        | -0.46 [-0.61, -0.31]  |
| Kelley 2002  | 266              | -0.30(1.08)                    | 276  | 0.08(1.08)                  | <del></del>                                      | 5.86        | -0.38 [-0.56, -0.20]  |
| Lindgarde 2000   | 190              | 0.03(1.08)                     | 186  | 0.26(1.08)                  |  | 4.07        | -0.23 [-0.45, -0.01]  |
| Miles 2002   | 250              | -0.27(1.08)                    | 254  | 0.06(1.08)                  | <del></del>                                      | 5.45        | -0.33 [-0.52, -0.14]  |
| Rossner 2000   | 241              | -0.35(1.08)                    | 236  | -0.05(1.08)                 | <del></del>                                      | 5.16        | -0.30 [-0.49, -0.11]  |
| Sjostrom 1998  | 343              | -0.08(1.08)                    | 340  | 0.23(1.08)                  | <del></del>                                      | 7.39        | -0.31 [-0.47, -0.15]  |
| Swinburn 2005  | 170              | -0.08(0.73)                    | 169  | 0.16(0.68)                  |  | 8.60        | -0.24 [-0.39, -0.09]  |
| Torgerson 2004   | 1487             | -0.51(1.08)                    | 1295 | -0.08(1.08)                 | -  | 29.96       | -0.43 [-0.51, -0.35]  |
| Subtotal (95% CI)  | 3949             |                                | 3755 |                             | <b>♦</b>   | 100.00      | -0.36 [-0.40, -0.31]  |
| Test for heterogeneity: Chi <sup>2</sup><br>Test for overall effect: Z = 1 |                  |                                |      |                             |  |             |                       |
| 02 Weight maintenance  |                  |                                |      |                             |  |             |                       |
| Hauptman 2000  | 210              | 0.29(1.08)                     | 212  | 0.14(1.08)                  | <del>                                     </del> | 38.83       | 0.15 [-0.06, 0.36]    |
| Hill 1999  | 87               | 0.08(1.08)                     | 102  | 0.17(1.08)                  | <del></del>                                      | 17.28       | -0.09 [-0.40, 0.22]   |
| Rossner 2000   | 241              | 0.38(1.08)                     | 236  | 0.36(1.08)                  | <del></del>                                      | 43.89       | 0.02 [-0.17, 0.21]    |
| Subtotal (95% CI)  | 538              |                                | 550  |                             | <b>*</b>   | 100.00      | 0.05 [-0.08, 0.18]    |
| Test for heterogeneity: Chi <sup>2</sup>                                   | = 1.78, df = 2 ( | P = 0.41), I <sup>2</sup> = 0% |      |                             | ľ  |             |                       |
| Test for overall effect: Z = 0   |                  | ,,                             |      |                             |  |             |                       |
|  |                  |                                |      |                             | -1 -0.5 0 0.5                                    | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Orlistat UPDATE adults only

01 Orlistat 360mg/day + diet vs placebo + diet (all studies)
12 Change in LDL cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study<br>or sub-category   | N    | Orlistat + diet<br>Mean (SD)      | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------|-----------------------------------|------|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction  |      |                                   |      |                             |                       |             |                       |
| Bakris 2002  | 267  | -0.31(0.76)                       | 265  | -0.11(0.70)                 | <del></del> -         | 6.74        | -0.20 [-0.32, -0.08]  |
| Broom 2002a  | 259  | -0.30(0.74)                       | 263  | -0.02(0.74)                 | <del></del>           | 6.44        | -0.28 [-0.41, -0.15]  |
| Finer 2000   | 110  | -0.11(0.63)                       | 108  | 0.21(0.53)                  | <del></del>           | 4.35        | -0.32 [-0.47, -0.17]  |
| Hauptman 2000  | 210  | -0.12(0.74)                       | 212  | 0.25(0.74)                  | <del></del>           | 5.21        | -0.37 [-0.51, -0.23]  |
| Hollander 1998   | 156  | -0.12(0.50)                       | 151  | 0.22(0.70)                  | <del></del>           | 5.57        | -0.34 [-0.48, -0.20]  |
| Kelley 2002  | 266  | -0.38(0.74)                       | 276  | -0.08(0.74)                 | <del></del> -         | 6.68        | -0.30 [-0.42, -0.18]  |
| Lindgarde 2000   | 190  | -0.22(0.74)                       | 186  | 0.07(0.74)                  | <del></del>           | 4.64        | -0.29 [-0.44, -0.14]  |
| Miles 2002   | 250  | -0.25(0.74)                       | 254  | -0.05(0.74)                 | <del></del> -         | 6.22        | -0.20 [-0.33, -0.07]  |
| Rossner 2000   | 241  | -0.33(0.74)                       | 236  | -0.06(0.74)                 | <del></del> -         | 5.88        | -0.27 [-0.40, -0.14]  |
| Sjostrom 1998  | 343  | -0.09(0.74)                       | 340  | 0.13(0.74)                  | <del></del> -         | 8.43        | -0.22 [-0.33, -0.11]  |
| Swinburn 2005  | 170  | -0.12(0.65)                       | 169  | 0.11(0.62)                  | <del></del>           | 5.68        | -0.23 [-0.37, -0.09]  |
| Torgerson 2004   | 1487 | -0.42(0.74)                       | 1295 | -0.06(0.74)                 | -                     | 34.16       | -0.36 [-0.42, -0.30]  |
| Subtotal (95% CI)  | 3949 |                                   | 3755 |                             | <b>♦</b>              | 100.00      | -0.30 [-0.33, -0.27]  |
| Γest for heterogeneity: Chi <sup>2</sup><br>Γest for overall effect: Z = 1 |      |                                   |      |                             |                       |             |                       |
| 02 Weight maintenance  |      |                                   |      |                             |                       |             |                       |
| Hauptman 2000  | 210  | 0.18(0.74)                        | 212  | 0.11(0.74)                  | <del>- </del>         | 38.83       | 0.07 [-0.07, 0.21]    |
| Hill 1999  | 87   | -0.05(0.74)                       | 102  | 0.12(0.74)                  | <del></del>           | 17.28       | -0.17 [-0.38, 0.04]   |
| Rossner 2000   | 241  | 0.37(0.74)                        | 236  | 0.34(0.74)                  | <del></del>           | 43.89       | 0.03 [-0.10, 0.16]    |
| Subtotal (95% CI)  | 538  |                                   | 550  |                             | •                     | 100.00      | 0.01 [-0.08, 0.10]    |
| Test for heterogeneity: Chi <sup>2</sup><br>Test for overall effect: Z = 0 |      | P = 0.17), I <sup>2</sup> = 43.8% |      |                             |                       |             |                       |

Review: Orlistat UPDATE adults only

01 Orlistat 360mg/day + diet vs placebo + diet (all studies)
13 Change in HDL cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study                        |                          | Orlistat + diet                    |      | Placebo + diet | WMD (fixed)   | Weight | WMD (fixed)          |
|------------------------------|--------------------------|------------------------------------|------|----------------|---------------|--------|----------------------|
| or sub-category              | N                        | Mean (SD)                          | N    | Mean (SD)      | 95% CI        | %      | 95% CI               |
| 01 Weight reduction          |                          |                                    |      |                |               |        |                      |
| Finer 2000                   | 110                      | 0.15(0.23)                         | 108  | 0.16(0.21)     | +             | 4.96   | -0.01 [-0.07, 0.05]  |
| Hauptman 2000                | 210                      | 0.06(0.29)                         | 212  | 0.11(0.29)     | <del>-</del>  | 5.53   | -0.05 [-0.11, 0.01]  |
| Hollander 1998               | 156                      | 0.06(0.20)                         | 151  | 0.06(0.20)     | <del>+</del>  | 8.46   | 0.00 [-0.04, 0.04]   |
| Kelley 2002                  | 266                      | 0.02(0.29)                         | 276  | 0.05(0.29)     | <del>- </del> | 7.10   | -0.03 [-0.08, 0.02]  |
| Lindgarde 2000               | 190                      | 0.03(0.29)                         | 186  | 0.08(0.29)     | <del>-</del>  | 4.93   | -0.05 [-0.11, 0.01]  |
| Miles 2002                   | 250                      | 0.09(0.29)                         | 254  | 0.10(0.29)     | +             | 6.61   | -0.01 [-0.06, 0.04]  |
| Rossner 2000                 | 241                      | 0.08(0.29)                         | 236  | 0.15(0.29)     | <del>-</del>  | 6.25   | -0.07 [-0.12, -0.02] |
| Sjostrom 1998                | 343                      | 0.10(0.29)                         | 340  | 0.10(0.29)     | <del>+</del>  | 8.95   | 0.00 [-0.04, 0.04]   |
| Swinburn 2005                | 170                      | 0.04(0.18)                         | 169  | 0.08(0.19)     | =             | 10.91  | -0.04 [-0.08, 0.00]  |
| Torgerson 2004               | 1487                     | 0.04(0.29)                         | 1295 | 0.10(0.29)     | <b>=</b>      | 36.30  | -0.06 [-0.08, -0.04] |
| Subtotal (95% CI)            | 3423                     |                                    | 3227 |                | <b>♦</b> I    | 100.00 | -0.04 [-0.05, -0.03] |
| Test for heterogeneity: Chi  | $i^2 = 13.62$ , df = 9   | (P = 0.14), I <sup>2</sup> = 33.9% |      |                | i             |        |                      |
| Test for overall effect: Z = | 5.88 (P < 0.0000         | 1)                                 |      |                |               |        |                      |
| 02 Weight maintenance        |                          |                                    |      |                |               |        |                      |
| Hauptman 2000                | 210                      | 0.01(0.29)                         | 212  | -0.02(0.29)    | <del> -</del> | 38.72  | 0.03 [-0.03, 0.09]   |
| Hill 1999                    | 89                       | -0.04(0.29)                        | 103  | 0.00(0.29)     | <del>-</del>  | 17.52  | -0.04 [-0.12, 0.04]  |
| Rossner 2000                 | 241                      | 0.04(0.29)                         | 236  | 0.01(0.29)     | <b>⊨</b>      | 43.76  | 0.03 [-0.02, 0.08]   |
| Subtotal (95% CI)            | 540                      |                                    | 551  |                | •             | 100.00 | 0.02 [-0.02, 0.05]   |
| Test for heterogeneity: Chi  | $i^2 = 2.29$ , df = 2 (F | P = 0.32), I <sup>2</sup> = 12.8%  |      |                | ľ             |        |                      |
| Test for overall effect: Z = |                          | •                                  |      |                |               |        |                      |
|                              | - (/                     |                                    |      |                |               | +      |                      |
|                              |                          |                                    |      | -              | 1 -0.5 0 0.5  | 1      |                      |

Favours control Favours treatment

Orlistat UPDATE adults only Review:

01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 14 Change in triglycerides in mmol/l at 12 months Comparison: Outcome:

WMD (fixed) WMD (fixed) Weight Study Orlistat + diet Placebo + diet or sub-category Ν Mean (SD) Ν Mean (SD) 01 Weight reduction Broom 2002a Hauptman 2000 259 0.44(0.96) 263 0.17(0.96) -0.10(0.96) 0.27 [0.11, 0.43] 0.16 [-0.02, 0.34] 5.73 210 212 Hollander 1998 156 0.02(0.80) 151 0.28(1.00) 4.67 -0.26 [-0.46, -0.06] Kelley 2002 266 0.18(0.96) 276 0.31(0.96) 7.35 -0.13 [-0.29, 0.03] Lindgarde 2000 190 0.18(0.96) 186 0.04(0.96) 5.10 0.14 [-0.05, 0.33] Miles 2002 250 -0.25(0.96)254 0 03(0 96) 6 84 -0.28 [-0.45, -0.11] Rossner 2000 -0.01 [-0.18, 0.16] 241 -0.09(0.96) 236 -0.08(0.96) 6.47 343 170 -0.07(0.96) 0.01(0.73) 0.06(0.96) 9.27 9.89 -0.13 [-0.27, 0.01] 0.07 [-0.07, 0.21] Sjostrom 1998 340 169 Swinburn 2005 Torgerson 2004 1487 -0.12(0.96) 1295 -0.12(0.96) 0.00 [-0.07, 0.07] Subtotal (95% CI) 3572 3382 100.00 -0.01 [-0.06, 0.03] Test for heterogeneity: Chi<sup>2</sup> = 38.62, df = 9 (P < 0.0001),  $I^2$  = 76.7% Test for overall effect: Z = 0.50 (P = 0.62) 02 Weight maintenance Hauptman 2000 Hill 1999 0.15(0.96) 212 0.05(0.96) 38.72 210 0.10 [-0.08, 0.28] 89 0.02(0.96) 103 0.14(0.96) 17.52 -0.12 [-0.39, 0.15] Rossner 2000 241 540 -0.01(0.96) 236 551 0.03(0.96) 43.76 -0.04 [-0.21, 0.13] Subtotal (95% CI) 100.00 0.00 [-0.11, 0.11] Test for heterogeneity:  $Chi^2 = 2.10$ , df = 2 (P = 0.35),  $I^2 = 4.7\%$ Test for overall effect: Z = 0.00 (P = 1.00)

-0.5

Favours treatment Favours control

0.5

Orlistat UPDATE adults only

01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 15 Change in HbA1c% at 12 months

Comparison:

| Study or sub-category            | N               | Orlistat + diet<br>Mean (SD)        | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI   | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|-----------------|-------------------------------------|------|-----------------------------|-------------------------|-------------|-----------------------|
| 01 Weight reduction              |                 |                                     |      |                             |                         |             |                       |
| Broom 2002a                      | 259             | 0.08(0.43)                          | 263  | 0.19(0.58)                  | -                       | 33.98       | -0.11 [-0.20, -0.02]  |
| Hollander 1998                   | 156             | -0.15(1.00)                         | 151  | 0.32(1.10)                  | <del></del>             | 4.70        | -0.47 [-0.71, -0.23]  |
| Kelley 2002                      | 266             | -0.62(0.76)                         | 276  | -0.27(0.76)                 | <del></del>             | 15.88       | -0.35 [-0.48, -0.22]  |
| Lindgarde 2000                   | 190             | -0.25(0.78)                         | 186  | -0.05(0.51)                 | <del></del> -           | 14.72       | -0.20 [-0.33, -0.07]  |
| Miles 2002                       | 250             | -0.75(0.76)                         | 254  | -0.41(0.76)                 | <del></del> -           | 14.77       | -0.34 [-0.47, -0.21]  |
| Swinburn 2005                    | 170             | -0.04(0.60)                         | 169  | 0.15(0.60)                  |                         | 15.94       | -0.19 [-0.32, -0.06]  |
| Subtotal (95% CI)                | 1291            |                                     | 1299 |                             | <b>◆</b>                | 100.00      | -0.23 [-0.28, -0.17]  |
| Test for heterogeneity: Chi2 =   | = 17.77, df = 5 | (P = 0.003), I <sup>2</sup> = 71.9% |      |                             | Ť I                     |             |                       |
| Test for overall effect: Z = 8.6 | 65 (P < 0.0000  | 1)                                  |      |                             |                         |             |                       |
| 02 Weight maintenance            |                 |                                     |      |                             |                         |             |                       |
| Subtotal (95% CI)                | 0               |                                     | 0    |                             |                         |             | Not estimable         |
| Test for heterogeneity: not ap   | pplicable       |                                     |      |                             |                         |             |                       |
| Test for overall effect: not ap  | plicable        |                                     |      |                             |                         |             |                       |
|                                  |                 |                                     |      |                             | -1 -0.5 0               | 0.5 1       |                       |
|                                  |                 |                                     |      |                             | Favours treatment Favou | rs control  |                       |

2

Review: Comparison: Outcome: Orlistat UPDATE adults only
01 Orlistat 360mg/day + diet vs placebo + diet (all studies)
16 Change in fasting plasma glucose in mmol/l at 12 months

| Study<br>or sub-category                 | N                 | Orlistat + diet<br>Mean (SD)         | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI                            | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|--------------------------------------|------|-----------------------------|--|-------------|-----------------------|
| 01 Weight reduction                      |                   |                                      |      |                             |  |             |                       |
| Broom 2002a                              | 259               | -0.19(1.26)                          | 263  | 0.06(1.02)                  | — <del>-</del>                                   | 11.11       | -0.25 [-0.45, -0.05]  |
| Hauptman 2000                            | 210               | 0.03(1.35)                           | 212  | 0.11(1.35)                  | <del></del>                                      | 6.49        | -0.08 [-0.34, 0.18]   |
| Hollander 1998                           | 156               | 0.04(1.60)                           | 151  | 0.70(1.80)                  | <del></del>                                      | 2.96        | -0.66 [-1.04, -0.28]  |
| Kelley 2002                              | 266               | -1.63(1.98)                          | 276  | -1.08(1.98)                 | <del></del>                                      | 3.87        | -0.55 [-0.88, -0.22]  |
| Lindgarde 2000                           | 190               | -0.46(1.35)                          | 186  | 0.08(1.35)                  | <del></del>                                      | 5.78        | -0.54 [-0.81, -0.27]  |
| Miles 2002                               | 250               | -2.00(1.98)                          | 254  | -0.70(1.98)                 | <b>4</b>   | 3.60        | -1.30 [-1.65, -0.95]  |
| Rossner 2000                             | 241               | 0.01(1.35)                           | 236  | 0.10(1.35)                  | <del></del>                                      | 7.33        | -0.09 [-0.33, 0.15]   |
| Sjostrom 1998                            | 343               | -0.21(1.35)                          | 340  | -0.06(1.35)                 | <del></del>                                      | 10.50       | -0.15 [-0.35, 0.05]   |
| Swinburn 2005                            | 170               | -0.19(1.13)                          | 169  | 0.29(1.42)                  | <del></del>                                      | 5.77        | -0.48 [-0.75, -0.21]  |
| Torgerson 2004                           | 1487              | 0.10(1.35)                           | 1295 | 0.20(1.35)                  | <del></del>                                      | 42.58       | -0.10 [-0.20, 0.00]   |
| Subtotal (95% CI)                        | 3572              |                                      | 3382 |                             | <b>◆</b>   | 100.00      | -0.24 [-0.31, -0.18]  |
| Test for heterogeneity: Chi <sup>2</sup> | = 62.84, df = 9   | (P < 0.00001), I <sup>2</sup> = 85.7 | %    |                             |  |             |                       |
| Test for overall effect: Z = 7.          | .30 (P < 0.0000   | 1)                                   |      |                             |  |             |                       |
| 02 Weight maintenance                    |                   |                                      |      |                             |  |             |                       |
| Hauptman 2000                            | 210               | 0.13(1.35)                           | 212  | 0.13(1.35)                  | <del></del>                                      | 46.94       | 0.00 [-0.26, 0.26]    |
| Rossner 2000                             | 241               | 0.03(1.35)                           | 236  | -0.12(1.35)                 | <del>                                     </del> | 53.06       | 0.15 [-0.09, 0.39]    |
| Subtotal (95% CI)                        | 451               |                                      | 448  |                             | <b>*</b>   | 100.00      | 0.08 [-0.10, 0.26]    |
| Test for heterogeneity: Chi <sup>2</sup> | = 0.69, df = 1 (I | P = 0.41), I <sup>2</sup> = 0%       |      |                             | ľ  |             |                       |
| Test for overall effect: $Z = 0$         | .88 (P = 0.38)    |                                      |      |                             |  |             |                       |

Favours treatment Favours control

Favours treatment Favours control

Review:

Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 17 Change in DBP in mmHg at 12 months Comparison: Outcome:

| Study<br>or sub-category  | N    | Orlistat + diet<br>Mean (SD) | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------|------------------------------|------|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |      |                              |      |                             |                       |             |                       |
| Bakris 2002   | 267  | -11.40(8.30)                 | 265  | -9.20(8.40)                 | <del></del> -         | 6.86        | -2.20 [-3.62, -0.78]  |
| Broom 2002a   | 259  | -5.50(8.30)                  | 263  | -3.10(8.30)                 | <del></del>           | 6.81        | -2.40 [-3.82, -0.98]  |
| Davidson 1999   | 657  | -1.00(8.30)                  | 223  | 1.30(8.30)                  | <del></del>           | 8.69        | -2.30 [-3.56, -1.04]  |
| Derosa 2003   | 25   | -4.00(8.30)                  | 23   | -2.00(8.30)                 |                       | 0.63        | -2.00 [-6.70, 2.70]   |
| Hauptman 2000   | 210  | -1.00(8.30)                  | 212  | 2.00(8.30)                  | <del></del>           | 5.51        | -3.00 [-4.58, -1.42]  |
| Hollander 1998  | 156  | -1.01(8.00)                  | 151  | 0.23(8.90)                  | <del></del>           | 3.85        | -1.24 [-3.14, 0.66]   |
| Kelley 2002   | 266  | -2.30(8.30)                  | 276  | -1.00(8.30)                 | <del></del>           | 7.07        | -1.30 [-2.70, 0.10]   |
| Lindgarde 2000  | 190  | -0.90(8.30)                  | 186  | -1.30(8.30)                 | <del></del>           | 4.91        | 0.40 [-1.28, 2.08]    |
| Rossner 2000  | 241  | -0.90(8.30)                  | 236  | -1.30(8.30)                 | <del>-</del> -        | 6.22        | 0.40 [-1.09, 1.89]    |
| Sjostrom 1998   | 343  | -2.10(8.30)                  | 340  | 0.20(8.30)                  | <del></del> -         | 8.91        | -2.30 [-3.54, -1.06]  |
| Swinburn 2005   | 170  | -2.96(8.01)                  | 169  | -1.37(8.59)                 | <del></del>           | 4.42        | -1.59 [-3.36, 0.18]   |
| Torgerson 2004  | 1487 | -3.60(8.30)                  | 1295 | -2.60(8.30)                 |                       | 36.13       | -1.00 [-1.62, -0.38]  |
| Subtotal (95% CI)   | 4271 |                              | 3639 |                             | <b>♦</b>              | 100.00      | -1.42 [-1.80, -1.05]  |
| Test for heterogeneity: Chi <sup>2</sup><br>Test for overall effect: Z = 7. |      |                              |      |                             |                       |             |                       |
| 02 Weight maintenance   |      |                              |      |                             |                       |             |                       |
| Hauptman 2000   | 210  | 2.00(8.30)                   | 212  | 2.00(8.30)                  | <del></del>           | 46.94       | 0.00 [-1.58, 1.58]    |
| Rossner 2000  | 241  | 1.30(8.30)                   | 236  | 1.30(8.30)                  | <del></del>           | 53.06       | 0.00 [-1.49, 1.49]    |
| Subtotal (95% CI)   | 451  |                              | 448  |                             | •                     | 100.00      | 0.00 [-1.09, 1.09]    |
| Test for heterogeneity: Chi <sup>2</sup><br>Test for overall effect: Z = 0. |      | $[P = 1.00), I^2 = 0\%$      |      |                             | Ĭ                     |             |                       |

Review: Orlistat UPDATE adults only

01 Orlistat 360mg/day + diet vs placebo + diet (all studies)
18 Change in SBP in mmHg at 12 months Comparison:

Outcome:

| Study<br>or sub-category                   | N               | Orlistat + diet<br>Mean (SD)         | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI                 | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----------------|--------------------------------------|------|-----------------------------|---------------------------------------|-------------|-----------------------|
| 01 Weight reduction                        |                 |                                      |      |                             |                                       |             |                       |
| Bakris 2002                                | 267             | -13.30(15.20)                        | 265  | -11.00(15.00)               | <del></del>                           | 4.74        | -2.30 [-4.87, 0.27]   |
| Broom 2002a                                | 259             | -6.00(12.70)                         | 263  | -2.30(12.70)                | <del></del>                           | 6.57        | -3.70 [-5.88, -1.52]  |
| Davidson 1999                              | 657             | -0.80(12.70)                         | 223  | 1.00(12.70)                 | <del></del>                           | 8.39        | -1.80 [-3.73, 0.13]   |
| Derosa 2003                                | 25              | -6.00(12.70)                         | 23   | -4.00(12.70)                | <del></del>                           | 0.60        | -2.00 [-9.19, 5.19]   |
| Hauptman 2000                              | 210             | 2.00(12.70)                          | 212  | 3.00(12.70)                 | <del></del>                           | 5.32        | -1.00 [-3.42, 1.42]   |
| Hollander 1998                             | 156             | 0.21(12.80)                          | 151  | 4.15(14.20)                 | <del></del> -                         | 3.41        | -3.94 [-6.97, -0.91]  |
| Kelley 2002                                | 266             | -1.20(12.70)                         | 276  | -0.90(12.70)                | <del></del>                           | 6.82        | -0.30 [-2.44, 1.84]   |
| Lindgarde 2000                             | 190             | -0.50(12.70)                         | 186  | -0.90(12.70)                | <del>-  -</del>                       | 4.74        | 0.40 [-2.17, 2.97]    |
| Miles 2002                                 | 250             | -2.10(12.70)                         | 254  | -0.30(12.70)                | <del></del>                           | 6.35        | -1.80 [-4.02, 0.42]   |
| Rossner 2000                               | 241             | -2.70(12.70)                         | 236  | -1.90(12.70)                | <del></del>                           | 6.01        | -0.80 [-3.08, 1.48]   |
| Sjostrom 1998                              | 343             | -2.00(12.70)                         | 340  | 1.00(12.70)                 |                                       | 8.60        | -3.00 [-4.90, -1.10]  |
| Swinburn 2005                              | 170             | -4.05(13.00)                         | 169  | -0.51(14.70)                | <del></del>                           | 3.58        | -3.54 [-6.49, -0.59]  |
| Torgerson 2004                             | 1487            | -7.30(12.70)                         | 1295 | -5.20(12.70)                | <del></del>                           | 34.88       | -2.10 [-3.05, -1.15]  |
| Subtotal (95% CI)                          | 4521            |                                      | 3893 |                             | <b>♦</b>                              | 100.00      | -1.98 [-2.54, -1.42]  |
| Test for heterogeneity: Chi2 =             | : 13.68, df = 1 | 2 (P = 0.32), I <sup>2</sup> = 12.3% |      |                             | •                                     |             |                       |
| Test for overall effect: $Z = 6.9$         | 96 (P < 0.0000  | 01)                                  |      |                             |                                       |             |                       |
| 02 Weight maintenance                      |                 |                                      |      |                             |                                       |             |                       |
| Hauptman 2000                              | 210             | 2.00(12.70)                          | 212  | 2.00(12.70)                 | <del></del>                           | 46.94       | 0.00 [-2.42, 2.42]    |
| Rossner 2000                               | 241             | 2.10(12.70)                          | 236  | 3.10(12.70)                 | <del></del>                           | 53.06       | -1.00 [-3.28, 1.28]   |
| Subtotal (95% CI)                          | 451             |                                      | 448  |                             | <b>*</b>                              | 100.00      | -0.53 [-2.19, 1.13]   |
| Test for heterogeneity: Chi <sup>2</sup> = | 0.35, df = 1 (  | $(P = 0.56), I^2 = 0\%$              |      |                             | 1                                     |             |                       |
| Test for overall effect: $Z = 0.6$         | 33 (P = 0.53)   |                                      |      |                             |                                       |             |                       |
|  |                 |                                      |      |                             | + + + + + + + + + + + + + + + + + + + | 10          |                       |

Orlistat UPDATE adults only Review:

Comparison: Outcome: 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 19 Change in total cholesterol in mmol/l at 24 months

WMD (fixed) Orlistat + diet WMD (fixed) Weight % Study Placebo + diet or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 Weight reduction Davidson 1999 106 0.11(1.08) 89 0.21(1.08) 17.71 -0.10 [-0.40, 0.20] 38.63 43.66 -0.19 [-0.40, 0.02] -0.28 [-0.47, -0.09] -0.21 [-0.34, -0.09] Hauptman 2000 210 0.25(1.08) 212 0.44(1.08) Rossner 2000 241 236 0.31(1.08) Subtotal (95% CI) \$557\$ Test for heterogeneity: Chi² = 1.04, df = 2 (P = 0.60), I² = 0% 537 100 00 Test for overall effect: Z = 3.26 (P = 0.001) -0.5 0.5 0

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Orlistat UPDATE adults only Review:

Comparison: 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 20 Change in LDL cholesterol in mmol/l at 24 months Outcome:

| Study or sub-category                         | N              | Orlistat + diet<br>Mean (SD)      | N   | Placebo + diet<br>Mean (SD) |      | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----------------|-----------------------------------|-----|-----------------------------|------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                           |                |                                   |     |                             |      |                       |             |                       |
| Davidson 1999                                 | 104            | 0.05(0.74)                        | 88  | 0.04(0.74)                  |      | <del></del>           | 17.50       | 0.01 [-0.20, 0.22]    |
| Hauptman 2000                                 | 210            | 0.06(0.74)                        | 212 | 0.36(0.74)                  |      | <del></del>           | 38.73       | -0.30 [-0.44, -0.16]  |
| Rossner 2000                                  | 241            | 0.04(0.74)                        | 236 | 0.28(0.74)                  |      | <del></del>           | 43.77       | -0.24 [-0.37, -0.11]  |
| Subtotal (95% CI)                             | 555            |                                   | 536 |                             |      | <b>◆</b>              | 100.00      | -0.22 [-0.31, -0.13]  |
| Test for heterogeneity: Chi <sup>2</sup> = 5. | .92, df = 2 (F | P = 0.05), I <sup>2</sup> = 66.2% |     |                             |      | •                     |             |                       |
| Test for overall effect: Z = 4.90             | (P < 0.0000°   | 1)                                |     |                             |      |                       |             |                       |
|   |                |                                   |     |                             | -1 - | 0.5 0 0.5             | 1           |                       |

Orlistat UPDATE adults only Review:

Comparison: 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 21 Change in HDL cholesterol in mmol/l at 24 months Outcome:

| Study or sub-category          | N                        | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) |         | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|--------------------------|------------------------------|-----|-----------------------------|---------|-----------------------|-------------|-----------------------|
| 01 Weight reduction            |                          |                              |     |                             |         |                       |             |                       |
| Davidson 1999                  | 106                      | 0.11(0.29)                   | 89  | 0.15(0.29)                  |         | -                     | 17.71       | -0.04 [-0.12, 0.04]   |
| Hauptman 2000                  | 210                      | 0.07(0.29)                   | 212 | 0.09(0.29)                  |         | #                     | 38.63       | -0.02 [-0.08, 0.04]   |
| Rossner 2000                   | 241                      | 0.12(0.29)                   | 236 | 0.16(0.29)                  |         | =                     | 43.66       | -0.04 [-0.09, 0.01]   |
| Subtotal (95% CI)              | 557                      |                              | 537 |                             |         | •                     | 100.00      | -0.03 [-0.07, 0.00]   |
| Test for heterogeneity: Chi2   | $^{2}$ = 0.31, df = 2 (F | $P = 0.86$ ), $I^2 = 0\%$    |     |                             |         | 1                     |             |                       |
| Test for overall effect: Z = 1 | 1.84 (P = 0.07)          |                              |     |                             |         |                       |             |                       |
|                                |                          |                              |     |                             | -1 -0.5 | 5 0 0                 | .5 1        |                       |
|                                |                          |                              |     |                             | Favours | control Favours       | treatment   |                       |

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Orlistat UPDATE adults only

01 Orlistat 360mg/day + diet vs placebo + diet (all studies) Comparison: 22 Change in triglycerides in mmol/l at 24 months Outcome:

WMD (fixed) Orlistat + diet Weight WMD (fixed) Study Placebo + diet Ν Mean (SD) Ν Mean (SD) 01 Weight reduction -0.22 [-0.49, 0.05] 0.26 [0.08, 0.44] -0.05 [-0.22, 0.12] 0.04 [-0.07, 0.15] Davidson 1999 106 -0.07(0.96) 0.21(0.96) 89 0.15(0.96) -0.05(0.96) 17.71 38.63 210 212 Hauptman 2000 Rossner 2000 241 -0.10(0.96) 236 -0.05(0.96) 43.66 Subtotal (95% CI) 557 537 100.00 Test for heterogeneity:  $Chi^2 = 10.14$ , df = 2 (P = 0.006),  $I^2 = 80.3\%$ Test for overall effect: Z = 0.68 (P = 0.50) -0.5 0.5

Favours treatment

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours control

Orlistat UPDATE adults only

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01 Orlistat 360mg/day + diet vs placebo + diet (all studies)
23 Change in fasting plasma glucose in mmol/l at 24 months Comparison: Outcome:

| Study or sub-category            | N               | Orlistat + diet<br>Mean (SD)                 | N   | Placebo + diet<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|-----------------|--|-----|-----------------------------|--------|-----------------------|-------------|-----------------------|
| 01 Weight reduction              |                 |  |     |                             |        |                       |             |                       |
| Davidson 1999                    | 106             | 0.06(0.31)                                   | 89  | 0.26(0.38)                  |        | <del>-</del>          | 76.23       | -0.20 [-0.30, -0.10]  |
| Hauptman 2000                    | 210             | 0.16(1.35)                                   | 212 | 0.24(1.35)                  |        | <del></del>           | 11.16       | -0.08 [-0.34, 0.18]   |
| Rossner 2000                     | 241             | 0.04(1.35)                                   | 236 | -0.02(1.35)                 |        | <del></del>           | 12.61       | 0.06 [-0.18, 0.30]    |
| Subtotal (95% CI)                | 557             |  | 537 |                             |        | •                     | 100.00      | -0.15 [-0.24, -0.07]  |
| Test for heterogeneity: Chi2 =   | 4.15, df = 2 (P | <sup>1</sup> = 0.13), I <sup>2</sup> = 51.8% |     |                             |        | *                     |             |                       |
| Test for overall effect: Z = 3.5 | 60 (P = 0.0005) |  |     |                             |        |                       |             |                       |
| -                                |                 |  |     |                             | -1 -0. | .5 0 0.5              | 1           |                       |

Orlistat UPDATE adults only Review:

01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 24 Change in DBP mmHg at 24 months

Comparison: Outcome:

| Study or sub-category   | N   | Orlistat + diet<br>Mean (SD)       | N   | Placebo + diet<br>Mean (SD) |     |    | (fixed)<br>% CI | Weigl<br>% | nt      | WMD (fixed)<br>95% CI |
|---|-----|------------------------------------|-----|-----------------------------|-----|----|-----------------|------------|---------|-----------------------|
| 01 Weight reduction   |     |                                    |     |                             |     |    |                 |            |         |                       |
| Hauptman 2000   | 210 | 1.00(8.30)                         | 212 | 4.00(8.30)                  |     | -  |                 | 46.9       | 94 -3.0 | 00 [-4.58, -1.42]     |
| Rossner 2000  | 241 | 0.40(8.30)                         | 236 | 0.00(8.30)                  |     | _  | <u>-</u>        | 53.0       | 0.4     | 40 [-1.09, 1.89]      |
| Subtotal (95% CI)   | 451 |                                    | 448 |                             |     | •  | •               | 100.0      | 00 -1.3 | 20 [-2.28, -0.11]     |
| Test for heterogeneity: Chi <sup>2</sup> Test for overall effect: Z = 2 |     | P = 0.002), I <sup>2</sup> = 89.4% |     |                             |     |    |                 |            |         |                       |
|   |     |                                    |     |                             | -10 | -5 | 0 5             | 10         |         |                       |

Review:

Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 25 Change in SBP mmHg at 24 months Comparison:

Outcome:

| Study or sub-category  | N   | Orlistat + diet<br>Mean (SD)   | N   | Placebo + diet<br>Mean (SD) |     |    | (fixed)<br>6 CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|--------------------------------|-----|-----------------------------|-----|----|-----------------|-------------|-----------------------|
| 01 Weight reduction  |     |                                |     |                             |     |    |                 |             |                       |
| Hauptman 2000  | 210 | 4.00(12.70)                    | 212 | 5.00(12.70)                 |     |    | _               | 46.94       | -1.00 [-3.42, 1.42]   |
| Rossner 2000   | 241 | -0.60(12.70)                   | 236 | 1.20(12.70)                 |     |    | _               | 53.06       | -1.80 [-4.08, 0.48]   |
| Subtotal (95% CI)  | 451 |                                | 448 |                             |     |    |                 | 100.00      | -1.42 [-3.08, 0.24]   |
| Test for heterogeneity: Chir<br>Test for overall effect: Z = |     | P = 0.64), I <sup>2</sup> = 0% |     |                             |     |    |                 |             |                       |
|  |     |                                |     |                             | -10 | -5 | 5               | 10          |                       |

Orlistat UPDATE adults only Review: Comparison:

01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 26 Change in total cholesterol in mmol/l at 48 months Outcome:

| Study or sub-category   | N   | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) |    |      | O (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|------------------------------|-----|-----------------------------|----|------|--------------------|-------------|-----------------------|
| Torgerson 2004  | 851 | -0.46(1.08)                  | 567 | -0.13(1.08)                 |    | -    |                    | 100.00      | -0.33 [-0.44, -0.22]  |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 9 |     | 1)                           | 567 |                             |    | •    |                    | 100.00      | -0.33 [-0.44, -0.22]  |
|   |     |                              |     |                             | -1 | -0.5 | 0 0.5              | 1           |                       |

Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) Comparison: 27 Change in LDL cholesterol in mmol/l at 48 months WMD (fixed) WMD (fixed) Study Orlistat + diet Placebo + diet Weight Ν Mean (SD) Ν Mean (SD) or sub-category -0.47(0.74) 567 -0.19(0.74) 100.00 -0.28 [-0.36, -0.20] Torgerson 2004 851 851 567 100.00 -0.28 [-0.36, -0.20] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 6.98 (P < 0.00001) -0.5 0.5 Favours treatment Favours control Orlistat UPDATE adults only Review 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) 28 Change in HDL cholesterol in mmol/l at 48 months Comparison: Outcome: WMD (fixed) WMD (fixed) Study Orlistat + diet Placebo + diet Weight Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Torgerson 2004 851 0.08(0.29) 567 0.11(0.29) 100.00 -0.03 [-0.06, 0.00] Total (95% CI) 567 100.00 -0.03 [-0.06, 0.00] Test for heterogeneity: not applicable Test for overall effect: Z = 1.91 (P = 0.06) -0.5 0.5 Favours treatment 2 Favours control Review Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) Comparison: 29 Change in triglycerides in mmol/l at 48 months Outcome Study WMD (fixed) WMD (fixed) Orlistat + diet Placebo + diet Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Torgerson 2004 851 0.05(0.96) 567 0.06(0.96) 100.00 -0.01 [-0.11, 0.09] Total (95% CI) 567 -0.01 [-0.11, 0.09] Test for heterogeneity: not applicable Test for overall effect: Z = 0.19 (P = 0.85) -0.5 Ö 0.5 3 Favours control Favours treatment Review Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) Comparison: 30 Change in fasting plasma glucose in mmol/l at 48 months WMD (fixed) Orlistat + diet Placebo + diet WMD (fixed) Weight Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Torgerson 2004 851 0.10(1.98) 567 0.20(1.98) 100.00 -0.10 [-0.31, 0.11] -0.10 [-0.31, 0.11] 567 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.93 (P = 0.35) -0.5 0.5 Favours treatment Favours control Review Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) Comparison: Outcome 31 Change in DBP in mmHg at 48 months Orlistat + diet WMD (fixed) WMD (fixed) Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Torgerson 2004 851 -2.60(8.30) 567 -1.90(8.30) 100.00 -0.70 [-1.58, 0.18] 851 567 100.00 -0.70 [-1.58, 0.18] Test for heterogeneity: not applicable Test for overall effect: Z = 1.56 (P = 0.12) -10 -5 10 Favours control Orlistat UPDATE adults only 01 Orlistat 360mg/day + diet vs placebo + diet (all studies) Review Comparison: Outcome 32 Change in SBP in mmHg at 48 months WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Torgerson 2004 851 -4.90(12.70) 567 -3.40(12.70) 100.00 -1.50 [-2.85, -0.15] Total (95% CI) 851 567 100.00 -1.50 [-2.85, -0.15] Test for heterogeneity: not applicable

-10

-5

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Favours control

Test for overall effect: Z = 2.18 (P = 0.03)

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Orlistat UPDATE adults only

Comparison: Outcome: 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
01 Weight change in kg at 6 months

| Study or sub-category                                 | N               | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------------|------------------------------|-----|-----------------------------|-----|-----------------------|-------------|-----------------------|
| 01 Weight reduction                                   |                 |                              |     |                             |     |                       |             |                       |
| Derosa 2003   | 25              | -5.10(7.36)                  | 23  | -4.20(7.10)                 |     | <del></del>           | 9.59        | -0.90 [-4.99, 3.19]   |
| Hauptman 2000   | 210             | -5.46(7.46)                  | 212 | -1.97(6.47)                 |     |                       | 90.41       | -3.49 [-4.82, -2.16]  |
| Subtotal (95% CI)                                     | 235             |                              | 235 |                             |     | •                     | 100.00      | -3.24 [-4.51, -1.97]  |
| Test for overall effect: Z = 5  02 Weight maintenance | .01 (P < 0.0000 | 1)                           |     |                             |     |                       |             |                       |
| Hauptman 2000   | 210             | 1.72(6.40)                   | 212 | 1.21(6.26)                  |     | <u> </u>              | 100.00      | 0.51 [-0.70, 1.72]    |
| Subtotal (95% CI)                                     | 210             |                              | 212 |                             |     | <u> </u>              | 100.00      | 0.51 [-0.70, 1.72]    |
| Test for heterogeneity: not a                         | applicable      |                              |     |                             |     |                       |             |                       |
| Test for overall effect: Z = 0                        |                 |                              |     |                             |     |                       |             |                       |
|   |                 |                              |     |                             | -10 | -5 0                  | 5 10        |                       |

Favours treatment Favours control

Favours treatment Favours control

Orlistat UPDATE adults only

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Comparison: Outcome: 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) 02 Weight change in kg at 12 months

| Study<br>or sub-category   | N            | Orlistat + diet<br>Mean (SD)      | N    | Placebo + diet<br>Mean (SD) |       |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------|-----------------------------------|------|-----------------------------|-------|-------------|----------------------|-------------|-----------------------|
| 01 Weight reduction  |              |                                   |      |                             |       |             |                      |             |                       |
| Broom 2002a  | 259          | -5.80(8.50)                       | 263  | -2.30(6.40)                 |       | -           |                      | 7.19        | -3.50 [-4.79, -2.21]  |
| Davidson 1999  | 657          | -8.76(9.48)                       | 223  | -5.81(10.01)                |       | _           | -                    | 5.33        | -2.95 [-4.45, -1.45]  |
| Derosa 2003  | 25           | -8.60(8.35)                       | 23   | -7.60(8.07)                 |       |             | <del>-</del>         | 0.56        | -1.00 [-5.65, 3.65]   |
| Finer 2000   | 110          | -3.29(6.85)                       | 108  | -1.31(6.29)                 |       | _           | <u></u>              | 3.94        | -1.98 [-3.73, -0.23]  |
| Hauptman 2000  | 210          | -5.40(7.44)                       | 212  | -1.41(6.31)                 |       | -           |                      | 6.93        | -3.99 [-5.31, -2.67]  |
| Krempf 2003  | 346          | -5.95(7.60)                       | 350  | -3.05(6.78)                 |       | -           |                      | 10.48       | -2.90 [-3.97, -1.83]  |
| Lindgarde 2000   | 190          | -4.20(7.03)                       | 186  | -2.90(6.74)                 |       | _           | <del>-</del> -∤      | 6.20        | -1.30 [-2.69, 0.09]   |
| Rossner 2000   | 241          | -8.13(8.22)                       | 236  | -5.23(7.40)                 |       | -           | -                    | 6.10        | -2.90 [-4.30, -1.50]  |
| Sjostrom 1998  | 343          | -8.10(8.21)                       | 340  | -3.90(7.02)                 |       | -           |                      | 9.16        | -4.20 [-5.35, -3.05]  |
| Swinburn 2005  | 170          | -4.70(7.70)                       | 169  | -0.90(4.20)                 |       | -           |                      | 6.90        | -3.80 [-5.12, -2.48]  |
| Torgerson 2004   | 1650         | -10.60(8.91)                      | 1637 | -6.20(7.67)                 |       | -           |                      | 37.20       | -4.40 [-4.97, -3.83]  |
| Subtotal (95% CI)  | 4201         |                                   | 3747 |                             |       | •           |                      | 100.00      | -3.61 [-3.96, -3.27]  |
| Γest for heterogeneity: Chi <sup>2</sup> =<br>Γest for overall effect: Z = 20. |              |                                   | Ď    |                             |       |             |                      |             |                       |
| 02 Weight maintenance  |              |                                   |      |                             |       |             |                      |             |                       |
| Hauptman 2000  | 210          | 2.92(6.74)                        | 212  | 2.49(6.62)                  |       |             | <del></del> -        | 37.00       | 0.43 [-0.84, 1.70]    |
| Hill 1999  | 113          | 2.62(6.66)                        | 121  | 4.40(7.16)                  |       | _           | <del> </del>         | 19.17       | -1.78 [-3.55, -0.01]  |
| Rossner 2000   | 241          | 2.15(6.52)                        | 236  | 2.17(6.53)                  |       |             | <del>-</del>         | 43.83       | -0.02 [-1.19, 1.15]   |
| Subtotal (95% CI)  | 564          |                                   | 569  |                             |       |             | •                    | 100.00      | -0.19 [-0.97, 0.58]   |
| Test for heterogeneity: Chi2 =   | 4.09, df = 2 | P = 0.13), I <sup>2</sup> = 51.1% |      |                             |       |             | 1                    |             |                       |
| Test for overall effect: $Z = 0.4$   | 8 (P = 0.63) | •                                 |      |                             |       |             |                      |             |                       |
|  |              |                                   |      |                             | -10   | -5          | 0 5                  | 10          |                       |
|  |              |                                   |      |                             | Favoi | urs treatme | nt Favours o         | ontrol      |                       |

Review: Comparison: Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
03 Weight change in kg at 18 months Outcome:

| Study or sub-category                      | N             | Orlistat + diet<br>Mean (SD)   | N   | Placebo + diet<br>Mean (SD) |     |    | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------------|--------------------------------|-----|-----------------------------|-----|----|-----------------|-------------|-----------------------|
| 01 Weight reduction                        |               |                                |     |                             |     |    |                 |             |                       |
| Hauptman 2000                              | 210           | -3.68(6.96)                    | 212 | -0.02(5.97)                 |     | -  |                 | 40.29       | -3.66 [-4.90, -2.42]  |
| Krempf 2003                                | 346           | -5.05(7.34)                    | 350 | -1.35(6.30)                 |     | -  |                 | 59.71       | -3.70 [-4.72, -2.68]  |
| Subtotal (95% CI)                          | 556           |                                | 562 |                             |     | •  |                 | 100.00      | -3.68 [-4.47, -2.90]  |
| Test for heterogeneity: Chi <sup>2</sup> = | 0.00, df = 1  | P = 0.96), I <sup>2</sup> = 0% |     |                             |     | •  |                 |             |                       |
| Test for overall effect: Z = 9.19          | 9 (P < 0.0000 | 1)                             |     |                             |     |    |                 |             |                       |
| -  |               |                                |     |                             | -10 | -5 | 0 5             | 10          |                       |

Review: Orlistat UPDATE adults only

02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
04 Weight change at 24 months

Comparison: Outcome:

| Study or sub-category            | N                       | Orlistat + diet<br>Mean (SD)   | N   | Placebo + diet<br>Mean (SD) |       |              | ID (fixed)<br>5% CI | Weight % | WMD (fixed)<br>95% CI |
|----------------------------------|-------------------------|--------------------------------|-----|-----------------------------|-------|--------------|---------------------|----------|-----------------------|
| 01 Weight reduction              |                         |                                |     |                             |       |              |                     |          |                       |
| Hauptman 2000                    | 210                     | -2.48(6.62)                    | 212 | 1.08(6.22)                  |       | -            |                     | 52.66    | -3.56 [-4.79, -2.33]  |
| Rossner 2000                     | 241                     | -5.98(7.61)                    | 236 | -3.06(6.78)                 |       |              |                     | 47.34    | -2.92 [-4.21, -1.63]  |
| Subtotal (95% CI)                | 451                     |                                | 448 |                             |       |              |                     | 100.00   | -3.26 [-4.15, -2.37]  |
| Test for heterogeneity: Chi-     | $^{2}$ = 0.50, df = 1 ( | P = 0.48), I <sup>2</sup> = 0% |     |                             |       | •            |                     |          |                       |
| Test for overall effect: $Z = 7$ | 7.18 (P < 0.0000        | 1)                             |     |                             |       |              |                     |          |                       |
|                                  |                         |                                |     |                             | -10   | -5           | 0 5                 | 10       |                       |
|                                  |                         |                                |     |                             | Favoi | urs treatmer | t Favours co        | ntrol    |                       |

Orlistat UPDATE adults only

Comparison: Outcome: 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
05 Weight change in kg at 48 months

| Study or sub-category           | N         | Orlistat + diet<br>Mean (SD) | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---------------------------------|-----------|------------------------------|------|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction             |           |                              |      |                             |                       |             |                       |
| Torgerson 2004                  | 1650      | -5.80(7.56)                  | 1637 | -3.00(6.76)                 | <b>=</b>              | 100.00      | -2.80 [-3.29, -2.31]  |
| Subtotal (95% CI)               | 1650      |                              | 1637 |                             | <b>▼</b>              | 100.00      | -2.80 [-3.29, -2.31]  |
| Test for heterogeneity: not a   | pplicable |                              |      |                             | * I                   |             |                       |
| Test for overall effect: Z = 1  |           | 001)                         |      |                             |                       |             |                       |
| 02 Weight maintenance           |           |                              |      |                             |                       |             |                       |
| Subtotal (95% CI)               | 0         |                              | 0    |                             |                       |             | Not estimable         |
| Test for heterogeneity: not a   | pplicable |                              |      |                             |                       |             |                       |
| Test for overall effect: not ap | oplicable |                              |      |                             |                       |             |                       |
|                                 |           |                              |      |                             | -10 -5 0 5            | 10          |                       |

Favours treatment Favours control

Orlistat UPDATE adults only

Comparison: 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)

Outcome: 06 Failure to achieve at least 5% loss of initial body weight at 12 months

| Study or sub-category                    | Orlistat + diet<br>n/N                       | Placebo + diet<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|--|-----------------------|----------------------|-------------|----------------------|
| 01 Weight loss                           |  |                       |                      |             |                      |
| Broom 2002a                              | 44/100                                       | 76/100                | -                    | 13.40       | 0.58 [0.45, 0.74]    |
| Davidson 1999                            | 34/100                                       | 56/100                |                      | 9.88        | 0.61 [0.44, 0.84]    |
| Finer 2000                               | 65/100                                       | 79/100                | -                    | 13.93       | 0.82 [0.69, 0.98]    |
| Hauptman 2000                            | 49/100                                       | 69/100                |                      | 12.17       | 0.71 [0.56, 0.90]    |
| Krempf 2003                              | 34/100                                       | 54/100                | <del></del> -        | 9.52        | 0.63 [0.45, 0.87]    |
| Lindgarde 2000                           | 46/100                                       | 59/100                | <del></del>          | 10.41       | 0.78 [0.60, 1.02]    |
| Rossner 2000                             | 36/100                                       | 68/100                | -                    | 11.99       | 0.53 [0.39, 0.71]    |
| Sjostrom 1998                            | 31/100                                       | 51/100                | <del></del> -        | 8.99        | 0.61 [0.43, 0.86]    |
| Torgerson 2004                           | 27/100                                       | 55/100                | -                    | 9.70        | 0.49 [0.34, 0.71]    |
| Subtotal (95% CI)                        | 900  | 900                   | <b>♦</b>             | 100.00      | 0.65 [0.59, 0.71]    |
| Total events: 366 (Orlistat +            | diet), 567 (Placebo + diet)                  |                       | •                    |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> | = 14.74, df = 8 (P = 0.06), l <sup>2</sup> = | 45.7%                 |                      |             |                      |
| Test for overall effect: $Z = 9$ .       | 33 (P < 0.00001)                             |                       |                      |             |                      |

Favours treatment Favours control Orlistat UPDATE adults only

02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) Comparison: Outcome: 07 Failure to achieve at least 10% loss of initial body weight at 12 months

| Study or sub-category                    | Orlistat + diet<br>n/N                       | Placebo + diet<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|--|-----------------------|----------------------|-------------|----------------------|
| 01 Weight loss                           |  |                       |                      |             |                      |
| Broom 2002a                              | 80/100                                       | 89/100                | -                    | 11.88       | 0.90 [0.80, 1.01]    |
| Davidson 1999                            | 61/100                                       | 75/100                |                      | 10.01       | 0.81 [0.67, 0.99]    |
| Finer 2000                               | 84/100                                       | 94/100                | =                    | 12.55       | 0.89 [0.81, 0.99]    |
| Hauptman 2000                            | 71/100                                       | 89/100                | -                    | 11.88       | 0.80 [0.69, 0.92]    |
| Krempf 2003                              | 67/100                                       | 75/100                | <del></del>          | 10.01       | 0.89 [0.75, 1.07]    |
| Lindgarde 2000                           | 81/100                                       | 85/100                | <del>-</del>         | 11.35       | 0.95 [0.84, 1.08]    |
| Rossner 2000                             | 62/100                                       | 81/100                |                      | 10.81       | 0.77 [0.64, 0.92]    |
| Sjostrom 1998                            | 61/100                                       | 82/100                |                      | 10.95       | 0.74 [0.62, 0.89]    |
| Torgerson 2004                           | 59/100                                       | 79/100                |                      | 10.55       | 0.75 [0.62, 0.91]    |
| Subtotal (95% CI)                        | 900  | 900                   | <b>♦</b>             | 100.00      | 0.84 [0.79, 0.88]    |
| Total events: 626 (Orlistat +            | diet), 749 (Placebo + diet)                  |                       | 1                    |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> | = 12.20, df = 8 (P = 0.14), l <sup>2</sup> = | 34.4%                 |                      |             |                      |
| Test for overall effect: $Z = 6$         | .81 (P < 0.00001)                            |                       |                      |             |                      |

Favours treatment Favours control

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Review: Orlistat UPDATE adults only

Comparison: 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)

Outcome: 08 Failure to complete at 12 months

| Study or sub-category                    | Orlistat + diet n/N                         | Placebo + diet<br>n/N | RR (fixed)<br>95% CI | Weight<br>%  | RR (fixed)<br>95% CI |
|--|---|-----------------------|----------------------|--------------|----------------------|
| 01 Weight loss                           |   |                       |                      |              |                      |
| Broom 2002a                              | 30/100                                      | 40/100                | <del></del>          | 14.47        | 0.75 [0.51, 1.10]    |
| Davidson 1999                            | 31/100                                      | 41/100                | <del></del>          | 14.83        | 0.76 [0.52, 1.10]    |
| Derosa 2003                              | 7/100                                       | 0/100                 | +                    | 0.18         | 15.00 [0.87, 259.16] |
| Finer 2000                               | 36/100                                      | 42/100                | <del></del>          | 15.19        | 0.86 [0.61, 1.21]    |
| Hauptman 2000                            | 28/100                                      | 42/100                | -                    | 15.19        | 0.67 [0.45, 0.98]    |
| Lindgarde 2000                           | 16/100                                      | 12/100                | <del></del>          | 4.34         | 1.33 [0.67, 2.67]    |
| Rossner 2000                             | 26/100                                      | 35/100                | <del></del>          | 12.66        | 0.74 [0.49, 1.14]    |
| Sjostrom 1998                            | 18/100                                      | 24/100                | <b></b> -            | 8.68         | 0.75 [0.44, 1.29]    |
| Swinburn 2005                            | 22/100                                      | 19/100                | <del></del>          | 6.87         | 1.16 [0.67, 2.00]    |
| Torgerson 2004                           | 10/100                                      | 21/100                | <del></del>          | 7.59         | 0.48 [0.24, 0.96]    |
| Subtotal (95% CI)                        | 1000  | 1000                  | •                    | 100.00       | 0.81 [0.70, 0.94]    |
| Total events: 224 (Orlistat +            | diet), 276 (Placebo + diet)                 |                       | ·                    |              |                      |
| Test for heterogeneity: Chi <sup>2</sup> | $= 11.45$ , df $= 9$ (P $= 0.25$ ), $I^2 =$ | 21.4%                 |                      |              |                      |
| Test for overall effect: $Z = 2$         | .76 (P = 0.006)                             |                       |                      |              |                      |
|  |   |                       | <del></del>          | <del> </del> |                      |
|  |   | 0.1                   | 0.2 0.5 1 2          | 5 10         |                      |

Favours treatment Favours control

Favours treatment Favours control

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Review: Comparison: Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
09 Change in SBP mmHg at 6 months

| Study<br>or sub-category  | N  | Orlistat + diet<br>Mean (SD) | N  | Placebo + diet<br>Mean (SD) |      | W           | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------------------|----|-----------------------------|------|-------------|----------------------|-------------|-----------------------|
| Derosa 2003   | 25 | -2.00(12.70)                 | 23 | -2.00(12.70)                |      |             | +                    | 100.00      | 0.00 [-7.19, 7.19]    |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = 6 |    |                              | 23 |                             |      |             |                      | 100.00      | 0.00 [-7.19, 7.19]    |
|   |    |                              |    |                             | -10  | -5          | 0 5                  | 10          |                       |
|   |    |                              |    |                             | Favo | urs treatme | ent Favours c        | ontrol      |                       |

Review:

Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
10 Change in DBP mmHg at 6 months Comparison:

| Study or sub-category  | N  | Orlistat + diet<br>Mean (SD) | N  | Placebo + diet<br>Mean (SD) |     |    | O (fixed)<br>5% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|------------------------------|----|-----------------------------|-----|----|--------------------|---|-------------|-----------------------|
| Derosa 2003  | 25 | -1.00(8.30)                  | 23 | 0.00(8.30)                  |     |    | -                  |   | 100.00      | -1.00 [-5.70, 3.70]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |    |                              | 23 |                             |     |    |                    |   | 100.00      | -1.00 [-5.70, 3.70]   |
|  |    |                              |    |                             | -10 | -5 | Ö                  | 5 | 10          |                       |

Review: Comparison:

Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
11 Change in total cholesterol in mmol/l at 12 months

| Study<br>or sub-category  | N          | Orlistat + diet<br>Mean (SD)  | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------------|-------------------------------|------|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |            |                               |      |                             |                       |             |                       |
| Broom 2002a   | 259        | -0.12(1.08)                   | 263  | 0.16(1.08)                  | <del></del>           | 7.99        | -0.28 [-0.47, -0.09]  |
| Finer 2000  | 110        | -0.05(0.76)                   | 108  | 0.30(0.68)                  | <del></del> -         | 7.49        | -0.35 [-0.54, -0.16]  |
| Hauptman 2000   | 210        | -0.04(1.08)                   | 212  | 0.30(1.08)                  | <del></del>           | 6.46        | -0.34 [-0.55, -0.13]  |
| Lindgarde 2000  | 190        | 0.03(1.08)                    | 186  | 0.26(1.08)                  | <del></del>           | 5.75        | -0.23 [-0.45, -0.01]  |
| Rossner 2000  | 241        | -0.35(1.08)                   | 236  | -0.05(1.08)                 | <del></del>           | 7.30        | -0.30 [-0.49, -0.11]  |
| Sjostrom 1998   | 343        | -0.08(1.08)                   | 340  | 0.23(1.08)                  | <del></del>           | 10.45       | -0.31 [-0.47, -0.15]  |
| Swinburn 2005   | 170        | -0.08(0.73)                   | 169  | 0.16(0.68)                  | <del></del>           | 12.17       | -0.24 [-0.39, -0.09]  |
| Torgerson 2004  | 1487       | -0.51(1.08)                   | 1295 | -0.08(1.08)                 | <del></del>           | 42.38       | -0.43 [-0.51, -0.35]  |
| Subtotal (95% CI)   | 3010       |                               | 2809 |                             | •                     | 100.00      | -0.35 [-0.40, -0.30]  |
| Test for heterogeneity: Chi <sup>2</sup> Test for overall effect: Z = 1 |            |                               |      |                             |                       |             |                       |
| 02 Weight maintenance<br>Hauptman 2000                                  | 210        | 0.29(1.08)                    | 212  | 0.14(1.08)                  | <u> </u>              | 38.83       | 0.15 [-0.06, 0.36]    |
| Hill 1999   | 87         | 0.08(1.08)                    | 102  | 0.17(1.08)                  |                       | 17.28       | -0.09 [-0.40, 0.22]   |
| Rossner 2000  | 241        | 0.38(1.08)                    | 236  | 0.36(1.08)                  | _ <u>-</u>            | 43.89       | 0.02 [-0.17, 0.21]    |
| Subtotal (95% CI)   | 538        | 0.55(1.00)                    | 550  | 3.33(1.00)                  |                       | 100.00      | 0.05 [-0.08, 0.18]    |
| Test for heterogeneity: Chi <sup>2</sup>                                |            | P = 0.41) I <sup>2</sup> = 0% | 330  |                             |                       | 100.00      | 0.03 [ 0.00, 0.10]    |
| Test for overall effect: $Z = 0$  |            | 3,, 070                       |      |                             |                       |             |                       |
| TOST IST STORAGE BIBOL. Z = C   | (1 = 0.40) |                               |      |                             |                       |             |                       |
|   |            |                               |      |                             | -1 -0.5 0 0.5         | 1           |                       |
|   |            |                               |      |                             |                       |             |                       |

Review: Comparison: Outcome: Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
12 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category   | N                 | Orlistat + diet<br>Mean (SD)      | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI        | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------------------|-----------------------------------|------|-----------------------------|------------------------------|-------------|-----------------------|
| 01 Weight reduction   |                   |                                   |      |                             |                              |             |                       |
| Broom 2002a   | 259               | -0.30(0.74)                       | 263  | -0.02(0.74)                 | <del></del>                  | 8.61        | -0.28 [-0.41, -0.15]  |
| Finer 2000  | 110               | -0.11(0.63)                       | 108  | 0.21(0.53)                  | <del></del>                  | 5.82        | -0.32 [-0.47, -0.17]  |
| Hauptman 2000   | 210               | -0.12(0.74)                       | 212  | 0.25(0.74)                  | <del></del>                  | 6.96        | -0.37 [-0.51, -0.23]  |
| Lindgarde 2000  | 190               | -0.22(0.74)                       | 186  | 0.07(0.74)                  | <del></del>                  | 6.20        | -0.29 [-0.44, -0.14]  |
| Rossner 2000  | 241               | -0.33(0.74)                       | 236  | -0.06(0.74)                 | <del></del>                  | 7.87        | -0.27 [-0.40, -0.14]  |
| Sjostrom 1998   | 343               | -0.09(0.74)                       | 340  | 0.13(0.74)                  | -                            | 11.27       | -0.22 [-0.33, -0.11]  |
| Swinburn 2005   | 170               | -0.12(0.65)                       | 169  | 0.11(0.62)                  |                              | 7.59        | -0.23 [-0.37, -0.09]  |
| Torgerson 2004  | 1487              | -0.42(0.74)                       | 1295 | -0.06(0.74)                 | =                            | 45.68       | -0.36 [-0.42, -0.30]  |
| Subtotal (95% CI)   | 3010              |                                   | 2809 |                             | <b>♦</b>                     | 100.00      | -0.31 [-0.35, -0.28]  |
| Test for heterogeneity: Chi <sup>2</sup>                                | = 8.32, df = 7 (l | P = 0.31), I <sup>2</sup> = 15.8% |      |                             |                              |             |                       |
| Test for overall effect: Z = 16   | 6.54 (P < 0.000   | 01)                               |      |                             |                              |             |                       |
| 02 Weight maintenance   |                   |                                   |      |                             |                              |             |                       |
| Hauptman 2000   | 210               | 0.18(0.74)                        | 212  | 0.11(0.74)                  | <del>-  </del>               | 38.83       | 0.07 [-0.07, 0.21]    |
| Hill 1999   | 87                | -0.05(0.74)                       | 102  | 0.12(0.74)                  | <del></del>                  | 17.28       | -0.17 [-0.38, 0.04]   |
| Rossner 2000  | 241               | 0.37(0.74)                        | 236  | 0.34(0.74)                  | <del></del>                  | 43.89       | 0.03 [-0.10, 0.16]    |
| Subtotal (95% CI)   | 538               |                                   | 550  |                             | •                            | 100.00      | 0.01 [-0.08, 0.10]    |
| Test for heterogeneity: $Chi^2$ :<br>Test for overall effect: $Z = 0$ . |                   | P = 0.17), I <sup>2</sup> = 43.8% |      |                             |                              |             |                       |
|   |                   |                                   |      |                             | -1 -0.5 0 0.5                | 5 1         |                       |
|   |                   |                                   |      |                             | Favours treatment Favours of | ontrol      |                       |

Review: Comparison:

Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
13 Change in HDL cholesterol in mmol/l at 12 months

| Study<br>or sub-category   | N         | Orlistat + diet<br>Mean (SD) | N          | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>%    | WMD (fixed)<br>95% CI |
|--|-----------|------------------------------|------------|-----------------------------|-----------------------|----------------|-----------------------|
| 01 Weight reduction  |           |                              |            |                             |                       |                |                       |
| Finer 2000   | 110       | 0.15(0.23)                   | 108        | 0.16(0.21)                  | +                     | 6.37           | -0.01 [-0.07, 0.05]   |
| Hauptman 2000  | 210       | 0.06(0.29)                   | 212        | 0.11(0.29)                  | -                     | 7.11           | -0.05 [-0.11, 0.01]   |
| Lindgarde 2000   | 190       | 0.03(0.29)                   | 186        | 0.08(0.29)                  | =                     | 6.33           | -0.05 [-0.11, 0.01]   |
| Rossner 2000   | 241       | 0.08(0.29)                   | 236        | 0.15(0.29)                  | <del>-</del>          | 8.03           | -0.07 [-0.12, -0.02]  |
| Sjostrom 1998  | 343       | 0.10(0.29)                   | 340        | 0.10(0.29)                  | <b>+</b>              | 11.50          | 0.00 [-0.04, 0.04]    |
| Swinburn 2005  | 170       | 0.04(0.18)                   | 169        | 0.08(0.19)                  | <del>-</del>          | 14.02          | -0.04 [-0.08, 0.00]   |
| Torgerson 2004   | 1487      | 0.04(0.29)                   | 1295       | 0.10(0.29)                  | <b>=</b>              | 46.63          | -0.06 [-0.08, -0.04]  |
| Subtotal (95% CI)  | 2751      |                              | 2546       |                             | <b>♦</b>              | 100.00         | -0.05 [-0.06, -0.03]  |
| Test for heterogeneity: Chi <sup>2</sup> Test for overall effect: Z = 6. |           |                              |            |                             |                       |                |                       |
| 02 Weight maintenance  | 210       | 0.01(0.29)                   | 212        | 0.02/0.20\                  | L                     | 38.72          | 0.03 [-0.03, 0.09]    |
| Hauptman 2000  | 210<br>89 |                              |            | -0.02(0.29)                 |                       |                |                       |
| Hill 1999  | 241       | -0.04(0.29)                  | 103<br>236 | 0.00(0.29)                  |                       | 17.52<br>43.76 | -0.04 [-0.12, 0.04]   |
| Rossner 2000   | 540       | 0.04(0.29)                   | 551        | 0.01(0.29)                  | ₹                     | 100.00         | 0.03 [-0.02, 0.08]    |
| Subtotal (95% CI)  |           |                              | 221        |                             | <b>.</b>              | 100.00         | 0.02 [-0.02, 0.05]    |
| Test for heterogeneity: Chi <sup>2</sup>                                 |           |                              |            |                             |                       |                |                       |

Favours control Favours treatment

Orlistat UPDATE adults only

Comparison: Outcome: 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
14 Change in triglycerides in mmol/l at 12 months

| Study<br>or sub-category   | N                 | Orlistat + diet<br>Mean (SD)     | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|----------------------------------|------|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction  |                   |                                  |      |                             |                       |             |                       |
| Broom 2002a  | 259               | 0.44(0.96)                       | 263  | 0.17(0.96)                  | <del></del>           | 8.73        | 0.27 [0.11, 0.43]     |
| Hauptman 2000  | 210               | 0.06(0.96)                       | 212  | -0.10(0.96)                 | <del>  • •</del>      | 7.06        | 0.16 [-0.02, 0.34]    |
| Lindgarde 2000   | 190               | 0.18(0.96)                       | 186  | 0.04(0.96)                  | +-                    | 6.29        | 0.14 [-0.05, 0.33]    |
| Rossner 2000   | 241               | -0.09(0.96)                      | 236  | -0.08(0.96)                 | <del></del>           | 7.98        | -0.01 [-0.18, 0.16]   |
| Sjostrom 1998  | 343               | -0.07(0.96)                      | 340  | 0.06(0.96)                  | <del></del>           | 11.43       | -0.13 [-0.27, 0.01]   |
| Swinburn 2005  | 170               | 0.01(0.73)                       | 169  | -0.06(0.57)                 | <del>- </del>         | 12.19       | 0.07 [-0.07, 0.21]    |
| Torgerson 2004   | 1487              | -0.12(0.96)                      | 1295 | -0.12(0.96)                 | <del>+</del>          | 46.32       | 0.00 [-0.07, 0.07]    |
| Subtotal (95% CI)  | 2900              |                                  | 2701 |                             | •                     | 100.00      | 0.04 [-0.01, 0.09]    |
| Test for heterogeneity: Chi <sup>2</sup> Test for overall effect: Z = 1. |                   | (F = 0.009), F = 03.176          |      |                             |                       |             |                       |
| 02 Weight maintenance  |                   |                                  |      |                             |                       |             |                       |
| Hauptman 2000  | 210               | 0.15(0.96)                       | 212  | 0.05(0.96)                  | <del>    -</del>      | 38.72       | 0.10 [-0.08, 0.28]    |
| Hill 1999  | 89                | 0.02(0.96)                       | 103  | 0.14(0.96)                  | <del></del>           | 17.52       | -0.12 [-0.39, 0.15]   |
| Rossner 2000   | 241               | -0.01(0.96)                      | 236  | 0.03(0.96)                  | <del></del>           | 43.76       | -0.04 [-0.21, 0.13]   |
| Subtotal (95% CI)  | 540               |                                  | 551  |                             | •                     | 100.00      | 0.00 [-0.11, 0.11]    |
| Test for heterogeneity: Chi <sup>2</sup>                                 | = 2.10, df = 2 (I | P = 0.35), I <sup>2</sup> = 4.7% |      |                             | I                     |             |                       |
| Test for overall effect: Z = 0   | 00 (P = 1.00)     |                                  |      |                             |                       |             |                       |
|  |                   |                                  |      |                             |                       | +           |                       |
|  |                   |                                  |      |                             | -1 -0.5 0 0.5         | 1           |                       |

3

1

Review: Comparison: Outcome: Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
15 Change in HbA1c% at 12 months

| Study or sub-category              | N                | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|------------------|------------------------------|-----|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                |                  |                              |     |                             |                       |             |                       |
| Broom 2002a                        | 259              | 0.08(0.43)                   | 263 | 0.19(0.58)                  | <del></del> -         | 52.57       | -0.11 [-0.20, -0.02]  |
| Lindgarde 2000                     | 190              | -0.25(0.78)                  | 186 | -0.05(0.51)                 | <del></del> -         | 22.77       | -0.20 [-0.33, -0.07]  |
| Swinburn 2005                      | 170              | -0.04(0.60)                  | 169 | 0.15(0.60)                  |                       | 24.66       | -0.19 [-0.32, -0.06]  |
| Subtotal (95% CI)                  | 619              |                              | 618 |                             | <b>◆</b>              | 100.00      | -0.15 [-0.21, -0.09]  |
| Test for heterogeneity: Chi2 =     | = 1.72, df = 2 ( | $P = 0.42$ ), $I^2 = 0\%$    |     |                             | •                     |             |                       |
| Test for overall effect: $Z = 4$ . | 64 (P < 0.0000   | 01)                          |     |                             |                       |             |                       |
| 02 Weight maintenance              |                  |                              |     |                             |                       |             |                       |
| Subtotal (95% CI)                  | 0                |                              | 0   |                             |                       |             | Not estimable         |
| Test for heterogeneity: not a      | pplicable        |                              |     |                             |                       |             |                       |
| Test for overall effect: not ap    | plicable         |                              |     |                             |                       |             |                       |

Favours treatment Favours control

Favours treatment Favours control

Orlistat UPDATE adults only

1

2

02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
16 Change in fasting plasma glucose in mmol/l at 12 months Comparison: Outcome:

| Study<br>or sub-category                   | N                 | Orlistat + diet<br>Mean (SD)       | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|------------------------------------|------|-----------------------------|-----------------------|-------------|-----------------------|
|  |                   | (- ,                               |      |                             |                       |             |                       |
| 01 Weight reduction                        |                   |                                    |      |                             |                       |             |                       |
| Broom 2002a                                | 259               | -0.19(1.26)                        | 263  | 0.06(1.02)                  | <del></del> -         | 12.41       | -0.25 [-0.45, -0.05]  |
| Hauptman 2000                              | 210               | 0.03(1.35)                         | 212  | 0.11(1.35)                  | <del></del>           | 7.25        | -0.08 [-0.34, 0.18]   |
| Lindgarde 2000                             | 190               | -0.46(1.35)                        | 186  | 0.08(1.35)                  | <del></del>           | 6.45        | -0.54 [-0.81, -0.27]  |
| Rossner 2000                               | 241               | 0.01(1.35)                         | 236  | 0.10(1.35)                  | <del></del>           | 8.19        | -0.09 [-0.33, 0.15]   |
| Sjostrom 1998                              | 343               | -0.21(1.35)                        | 340  | -0.06(1.35)                 | <del></del>           | 11.73       | -0.15 [-0.35, 0.05]   |
| Swinburn 2005                              | 170               | -0.19(1.13)                        | 169  | 0.29(1.42)                  | <del></del>           | 6.44        | -0.48 [-0.75, -0.21]  |
| Torgerson 2004                             | 1487              | 0.10(1.35)                         | 1295 | 0.20(1.35)                  |                       | 47.54       | -0.10 [-0.20, 0.00]   |
| Subtotal (95% CI)                          | 2900              |                                    | 2701 |                             | <b>◆</b>              | 100.00      | -0.18 [-0.24, -0.11]  |
| Test for heterogeneity: Chi <sup>2</sup> = | = 15.40, df = 6   | (P = 0.02), I <sup>2</sup> = 61.0% |      |                             | ·                     |             |                       |
| Test for overall effect: $Z = 4.9$         | 95 (P < 0.0000    | 1)                                 |      |                             |                       |             |                       |
| 00.14.1.1.1                                |                   |                                    |      |                             |                       |             |                       |
| 02 Weight maintenance                      | 010               | 0 12(1 25)                         | 01.0 | 0 10/1 05)                  | <u></u>               | 46.04       | 0.00 [ 0.00 0.00]     |
| Hauptman 2000                              | 210               | 0.13(1.35)                         | 212  | 0.13(1.35)                  | <del></del>           | 46.94       | 0.00 [-0.26, 0.26]    |
| Rossner 2000                               | 241               | 0.03(1.35)                         | 236  | -0.12(1.35)                 | <del>    •</del>      | 53.06       | 0.15 [-0.09, 0.39]    |
| Subtotal (95% CI)                          | 451               |                                    | 448  |                             | <b>*</b>              | 100.00      | 0.08 [-0.10, 0.26]    |
| Test for heterogeneity: Chi <sup>2</sup> = | = 0.69, df = 1 (I | P = 0.41), I <sup>2</sup> = 0%     |      |                             |                       |             |                       |
| Test for overall effect: $Z = 0.8$         | 38 (P = 0.38)     |                                    |      |                             |                       |             |                       |
|  |                   |                                    |      |                             | -1 -0.5 0 0.5         | 1           |                       |

Review:

Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
17 Change in DBP in mmHg at 12 months Comparison:

| Study<br>or sub-category     | N                              | Orlistat + diet<br>Mean (SD)   | N    | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI          | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------|--------------------------------|--------------------------------|------|-----------------------------|--------------------------------|-------------|-----------------------|
| 01 Weight reduction          |                                |                                |      |                             |                                |             |                       |
| Broom 2002a                  | 259                            | -5.50(8.30)                    | 263  | -3.10(8.30)                 | <del></del>                    | 8.28        | -2.40 [-3.82, -0.98]  |
| Davidson 1999                | 657                            | -1.00(8.30)                    | 223  | 1.30(8.30)                  | <del></del> -                  | 10.57       | -2.30 [-3.56, -1.04]  |
| Derosa 2003                  | 25                             | -4.00(8.30)                    | 23   | -2.00(8.30)                 |                                | 0.76        | -2.00 [-6.70, 2.70]   |
| Hauptman 2000                | 210                            | -1.00(8.30)                    | 212  | 2.00(8.30)                  | <del></del>                    | 6.70        | -3.00 [-4.58, -1.42]  |
| Lindgarde 2000               | 190                            | -0.90(8.30)                    | 186  | -1.30(8.30)                 | <del></del>                    | 5.97        | 0.40 [-1.28, 2.08]    |
| Rossner 2000                 | 241                            | -0.90(8.30)                    | 236  | -1.30(8.30)                 | <del>- -</del> -               | 7.57        | 0.40 [-1.09, 1.89]    |
| Sjostrom 1998                | 343                            | -2.10(8.30)                    | 340  | 0.20(8.30)                  | <del></del>                    | 10.84       | -2.30 [-3.54, -1.06]  |
| Swinburn 2005                | 170                            | -2.96(8.01)                    | 169  | -1.37(8.59)                 | <del></del>                    | 5.37        | -1.59 [-3.36, 0.18]   |
| Torgerson 2004               | 1487                           | -3.60(8.30)                    | 1295 | -2.60(8.30)                 | <del>-</del>                   | 43.94       | -1.00 [-1.62, -0.38]  |
| Subtotal (95% CI)            | 3582                           |                                | 2947 |                             | <b>♦</b>                       | 100.00      | -1.38 [-1.79, -0.97]  |
| Test for heterogeneity: Ch   | i <sup>2</sup> = 21.51, df = 8 | $(P = 0.006), I^2 = 62.8\%$    |      |                             | ·                              |             |                       |
| Test for overall effect: Z = | 6.59 (P < 0.0000               | 11)                            |      |                             |                                |             |                       |
| 02 Weight maintenance        |                                |                                |      |                             |                                |             |                       |
| Hauptman 2000                | 210                            | 2.00(8.30)                     | 212  | 2.00(8.30)                  | <del></del>                    | 46.94       | 0.00 [-1.58, 1.58]    |
| Rossner 2000                 | 241                            | 1.30(8.30)                     | 236  | 1.30(8.30)                  | <del>- •</del> -               | 53.06       | 0.00 [-1.49, 1.49]    |
| Subtotal (95% CI)            | 451                            |                                | 448  |                             | •                              | 100.00      | 0.00 [-1.09, 1.09]    |
| Test for heterogeneity: Ch   | $i^2 = 0.00$ , $df = 1$ (      | P = 1.00), I <sup>2</sup> = 0% |      |                             |                                |             |                       |
| Test for overall effect: Z = | 0.00 (P = 1.00)                |                                |      |                             |                                |             |                       |
|                              | <u> </u>                       |                                |      |                             | 0 -5 0 5                       | 10          |                       |
|                              |                                |                                |      |                             | Favours treatment Favours co   | ntrol       |                       |
|                              |                                |                                |      |                             | ravours irealinefit Favours co | 111101      |                       |

Review:

Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
18 Change in SBP in mmHg at 12 months Comparison:

Outcome:

| Study or sub-category   | N    | Orlistat + diet<br>Mean (SD)   | N    | Placebo + diet<br>Mean (SD) |        | WMD (fixed<br>95% CI | d) Weight %  | WMD (fixed)<br>95% CI |
|---|------|--------------------------------|------|-----------------------------|--------|----------------------|--------------|-----------------------|
| 01 Weight reduction   |      |                                |      |                             |        |                      |              |                       |
| Broom 2002a   | 259  | -6.00(12.70)                   | 263  | -2.30(12.70)                |        | <del></del>          | 8.36         | -3.70 [-5.88, -1.52]  |
| Davidson 1999   | 657  | -0.80(12.70)                   | 223  | 1.00(12.70)                 |        |                      | 10.66        | -1.80 [-3.73, 0.13]   |
| Derosa 2003   | 25   | -6.00(12.70)                   | 23   | -4.00(12.70)                |        |                      | 0.77         | -2.00 [-9.19, 5.19]   |
| Hauptman 2000   | 210  | 2.00(12.70)                    | 212  | 3.00(12.70)                 |        |                      | 6.76         | -1.00 [-3.42, 1.42]   |
| Lindgarde 2000  | 190  | -0.50(12.70)                   | 186  | -0.90(12.70)                |        | <del>_</del>         | - 6.02       | 0.40 [-2.17, 2.97]    |
| Rossner 2000  | 241  | -2.70(12.70)                   | 236  | -1.90(12.70)                |        |                      | 7.64         | -0.80 [-3.08, 1.48]   |
| Sjostrom 1998   | 343  | -2.00(12.70)                   | 340  | 1.00(12.70)                 |        | <del></del>          | 10.93        | -3.00 [-4.90, -1.10]  |
| Swinburn 2005   | 170  | -4.05(13.00)                   | 169  | -0.51(14.70)                | _      | <del></del>          | 4.54         | -3.54 [-6.49, -0.59]  |
| Torgerson 2004  | 1487 | -7.30(12.70)                   | 1295 | -5.20(12.70)                |        | -                    | 44.33        | -2.10 [-3.05, -1.15]  |
| Subtotal (95% CI)   | 3582 |                                | 2947 |                             |        | •                    | 100.00       | -2.04 [-2.67, -1.41]  |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 6.3 |      |                                |      |                             |        |                      |              |                       |
| 02 Weight maintenance   |      |                                |      |                             |        |                      |              |                       |
| Hauptman 2000   | 210  | 2.00(12.70)                    | 212  | 2.00(12.70)                 |        | <del>-</del>         | 46.94        | 0.00 [-2.42, 2.42]    |
| Rossner 2000  | 241  | 2.10(12.70)                    | 236  | 3.10(12.70)                 |        | _                    | 53.06        | -1.00 [-3.28, 1.28]   |
| Subtotal (95% CI)   | 451  |                                | 448  |                             |        |                      | 100.00       | -0.53 [-2.19, 1.13]   |
| Test for heterogeneity: $Chi^2 = $<br>Test for overall effect: $Z = 0.6$    |      | P = 0.56), I <sup>2</sup> = 0% |      |                             |        |                      |              |                       |
|   |      |                                |      |                             | -10    | -5 0                 | 5 10         |                       |
|   |      |                                |      |                             | Favour | s treatment Fa       | ours control |                       |

Review: Comparison: Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
19 Change in total cholesterol in mmol/l at 24 months

| Study or sub-category  | N   | Orlistat + diet<br>Mean (SD)              | N   | Placebo + diet<br>Mean (SD) |    |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|---|-----|-----------------------------|----|------|-----------------|-------------|-----------------------|
| 01 Weight reduction  |     |   |     |                             |    |      |                 |             |                       |
| Davidson 1999  | 106 | 0.11(1.08)                                | 89  | 0.21(1.08)                  |    |      | <u> </u>        | 17.71       | -0.10 [-0.40, 0.20]   |
| Hauptman 2000  | 210 | 0.25(1.08)                                | 212 | 0.44(1.08)                  |    |      | 4               | 38.63       | -0.19 [-0.40, 0.02]   |
| Rossner 2000   | 241 | 0.03(1.08)                                | 236 | 0.31(1.08)                  |    |      |                 | 43.66       | -0.28 [-0.47, -0.09]  |
| Subtotal (95% CI)  | 557 |   | 537 |                             |    |      |                 | 100.00      | -0.21 [-0.34, -0.09]  |
| Test for heterogeneity: Chi <sup>2</sup><br>Test for overall effect: Z = 3 |     | <sup>9</sup> = 0.60), I <sup>2</sup> = 0% |     |                             |    | •    |                 |             |                       |
|  |     |   |     |                             | -1 | -0.5 | 0 0.5           | 1           |                       |

Favours treatment Favours control

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Favours control Favours treatment

Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)
20 Change in LDL cholesterol in mmol/l at 24 months Comparison:

Outcome:

|   | N           | Mean (SD)                         | N   | Mean (SD)  | WMD (fix<br>95% C |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-------------|-----------------------------------|-----|------------|-------------------|---|-------------|-----------------------|
| 01 Weight reduction                             |             |                                   |     |            |                   |   |             |                       |
| Davidson 1999                                   | 104         | 0.05(0.74)                        | 88  | 0.04(0.74) |                   | _ | 17.50       | 0.01 [-0.20, 0.22]    |
| Hauptman 2000                                   | 210         | 0.06(0.74)                        | 212 | 0.36(0.74) | <del></del>       |   | 38.73       | -0.30 [-0.44, -0.16]  |
| Rossner 2000                                    | 241         | 0.04(0.74)                        | 236 | 0.28(0.74) |                   |   | 43.77       | -0.24 [-0.37, -0.11]  |
| Subtotal (95% CI)                               | 555         |                                   | 536 |            | •                 |   | 100.00      | -0.22 [-0.31, -0.13]  |
| Test for heterogeneity: Chi <sup>2</sup> = 5.92 | , df = 2 (P | ' = 0.05), I <sup>2</sup> = 66.2% |     |            | •                 |   |             |                       |
| Test for overall effect: Z = 4.90 (P            | < 0.00001   | )                                 |     |            |                   |   |             |                       |

Orlistat UPDATE adults only

Comparison: 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed)

| Study<br>or sub-category                 | N                 | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|------------------------------|-----|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                      |                   |                              |     |                             |                       |             |                       |
| Davidson 1999                            | 106               | 0.11(0.29)                   | 89  | 0.15(0.29)                  | -                     | 17.71       | -0.04 [-0.12, 0.04]   |
| Hauptman 2000                            | 210               | 0.07(0.29)                   | 212 | 0.09(0.29)                  | <del></del>           | 38.63       | -0.02 [-0.08, 0.04]   |
| Rossner 2000                             | 241               | 0.12(0.29)                   | 236 | 0.16(0.29)                  | <del></del>           | 43.66       | -0.04 [-0.09, 0.01]   |
| Subtotal (95% CI)                        | 557               |                              | 537 |                             | •                     | 100.00      | -0.03 [-0.07, 0.00]   |
| Test for heterogeneity: Chi <sup>2</sup> | = 0.31, df = 2 (F | $P = 0.86$ ), $I^2 = 0\%$    |     |                             | "]                    |             |                       |
| Test for overall effect: $Z = 1$         | 84 (P = 0.07)     |                              |     |                             |                       |             |                       |

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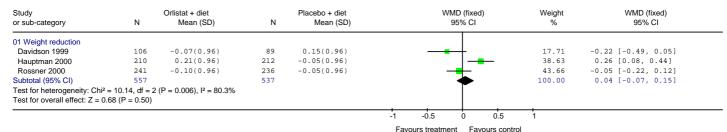
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Orlistat UPDATE adults only

02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) Comparison:

22 Change in triglycerides in mmol/l at 24 months Outcome:



Review:

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02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) 23 Change in fasting plasma glucose in mmol/l at 24 months Comparison: Outcome:

| Study or sub-category                    | N                 | Orlistat + diet<br>Mean (SD)      | N   | Placebo + diet<br>Mean (SD) |    |             | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|-----------------------------------|-----|-----------------------------|----|-------------|-----------------|-------------|-----------------------|
| 01 Weight reduction                      |                   |                                   |     |                             |    |             |                 |             |                       |
| Davidson 1999                            | 106               | 0.06(0.31)                        | 89  | 0.26(0.38)                  |    | -           |                 | 76.23       | -0.20 [-0.30, -0.10]  |
| Hauptman 2000                            | 210               | 0.16(1.35)                        | 212 | 0.24(1.35)                  |    | <del></del> | <u> </u>        | 11.16       | -0.08 [-0.34, 0.18]   |
| Rossner 2000                             | 241               | 0.04(1.35)                        | 236 | -0.02(1.35)                 |    |             | <del></del>     | 12.61       | 0.06 [-0.18, 0.30]    |
| Subtotal (95% CI)                        | 557               |                                   | 537 |                             |    | •           |                 | 100.00      | -0.15 [-0.24, -0.07]  |
| Test for heterogeneity: Chi <sup>2</sup> | = 4.15, df = 2 (F | P = 0.13), I <sup>2</sup> = 51.8% |     |                             |    | •           |                 |             |                       |
| Test for overall effect: $Z = 3$         | .50 (P = 0.0005)  |                                   |     |                             |    |             |                 |             |                       |
|  |                   |                                   |     |                             | -1 | -0.5        | 0 0.5           | 1           |                       |

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Orlistat UPDATE adults only Review:

02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) 24 Change in DBP mmHg at 24 months

Comparison: Outcome:

| Study or sub-category          | N                        | Orlistat + diet<br>Mean (SD)       | N   | Placebo + diet<br>Mean (SD) |     |               | O (fixed)<br>5% CI | Weight % | WMD (fixed)<br>95% CI |
|--------------------------------|--------------------------|------------------------------------|-----|-----------------------------|-----|---------------|--------------------|----------|-----------------------|
| 01 Weight reduction            |                          |                                    |     |                             |     |               |                    |          |                       |
| Hauptman 2000                  | 210                      | 1.00(8.30)                         | 212 | 4.00(8.30)                  |     | -             |                    | 46.94    | -3.00 [-4.58, -1.42]  |
| Rossner 2000                   | 241                      | 0.40(8.30)                         | 236 | 0.00(8.30)                  |     |               | <del></del>        | 53.06    | 0.40 [-1.09, 1.89]    |
| Subtotal (95% CI)              | 451                      |                                    | 448 |                             |     | •             | <b>▶</b>           | 100.00   | -1.20 [-2.28, -0.11]  |
| Test for heterogeneity: Chi-   | $^{2}$ = 9.39, df = 1 (F | P = 0.002), I <sup>2</sup> = 89.4% |     |                             |     | •             |                    |          |                       |
| Test for overall effect: Z = 2 | 2.16 (P = 0.03)          | ,.                                 |     |                             |     |               |                    |          |                       |
|                                |                          |                                    |     |                             | 10  | <del></del> - | <u> </u>           |          |                       |
|                                |                          |                                    |     |                             | -10 | -5            | 0 5                | 10       |                       |

Review: Orlistat UPDATE adults only

Ollostat a 1802 addition of the composition of the Comparison:

Outcome:

| Study or sub-category  | N   | Orlistat + diet<br>Mean (SD)   | N   | Placebo + diet<br>Mean (SD) |     |    | (fixed)<br>6 CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|--------------------------------|-----|-----------------------------|-----|----|-----------------|-------------|-----------------------|
| 01 Weight reduction  |     |                                |     |                             |     |    |                 |             |                       |
| Hauptman 2000  | 210 | 4.00(12.70)                    | 212 | 5.00(12.70)                 |     |    | _               | 46.94       | -1.00 [-3.42, 1.42]   |
| Rossner 2000   | 241 | -0.60(12.70)                   | 236 | 1.20(12.70)                 |     |    | _               | 53.06       | -1.80 [-4.08, 0.48]   |
| Subtotal (95% CI)  | 451 |                                | 448 |                             |     |    |                 | 100.00      | -1.42 [-3.08, 0.24]   |
| Test for heterogeneity: Chir<br>Test for overall effect: Z = |     | P = 0.64), I <sup>2</sup> = 0% |     |                             |     |    |                 |             |                       |
|  |     |                                |     |                             | -10 | -5 | 5               | 10          |                       |

Orlistat UPDATE adults only Review:

02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) 26 Change in total cholesterol in mmol/l at 48 months Comparison:

Outcome:

| Study or sub-category  | N   | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) |      |               | O (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|------------------------------|-----|-----------------------------|------|---------------|--------------------|-------------|-----------------------|
| Torgerson 2004   | 851 | -0.46(1.08)                  | 567 | -0.13(1.08)                 |      | -             |                    | 100.00      | -0.33 [-0.44, -0.22]  |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |     | 1)                           | 567 |                             |      | •             |                    | 100.00      | -0.33 [-0.44, -0.22]  |
| •  |     |                              |     |                             | -1   | -0.5          | 0 0.5              | 1           |                       |
|  |     |                              |     |                             | Favo | urs treatment | Favours cont       | rol         |                       |

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Orlistat UPDATE adults only 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) Comparison: 27 Change in LDL cholesterol in mmol/l at 48 months WMD (fixed) WMD (fixed) Orlistat + diet Weight Study Placebo + diet Ν Mean (SD) Ν or sub-category Mean (SD) -0.47(0.74) -0.19(0.74) 100.00 -0.28 [-0.36, -0.20] Torgerson 2004 851 567 851 567 100.00 -0.28 [-0.36, -0.20] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 6.98 (P < 0.00001) -0.5 0.5 Favours treatment Favours control Orlistat UPDATE adults only 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) 28 Change in HDL cholesterol in mmol/l at 48 months Comparison: Outcome: WMD (fixed) WMD (fixed) Study Weight Orlistat + diet Placebo + diet Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Torgerson 2004 851 0.08(0.29) 567 0.11(0.29) 100.00 -0.03 [-0.06, 0.00] Total (95% CI) 567 100.00 -0.03 [-0.06, 0.00] Test for heterogeneity: not applicable Test for overall effect: Z = 1.91 (P = 0.06) -0.5 0.5 Favours treatment Favours control Orlistat UPDATE adults only
02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) Review Comparison: 29 Change in triglycerides in mmol/l at 48 months Outcome WMD (fixed) WMD (fixed) Study Orlistat + diet Placebo + diet Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Torgerson 2004 851 0.05(0.96) 567 0.06(0.96) 100.00 -0.01 [-0.11, 0.09] Total (95% CI) 567 -0.01 [-0.11, 0.09] Test for heterogeneity: not applicable Test for overall effect: Z = 0.19 (P = 0.85) -0.5 Ö 0.5 Favours control Favours treatment Review Orlistat UPDATE adults only 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) Comparison: 30 Change in fasting plasma glucose in mmol/l at 48 months Orlistat + diet Placebo + diet WMD (fixed) Weight WMD (fixed) Study or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Torgerson 2004 851 0.10(1.98) 567 0.20(1.98) 100.00 -0.10 [-0.31, 0.11] -0.10 [-0.31, 0.11] Total (95% CI) 567 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.93 (P = 0.35) -0.5 0.5 Favours treatment Favours control Review Orlistat UPDATE adults only 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) Comparison: Outcome 31 Change in DBP in mmHg at 48 months WMD (fixed) WMD (fixed) Orlistat + diet Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI Torgerson 2004 851 -2.60(8.30) 567 -1.90(8.30) 100.00 -0.70 [-1.58, 0.18] 851 567 100.00 -0.70 [-1.58, 0.18] Test for heterogeneity: not applicable Test for overall effect: Z = 1.56 (P = 0.12) -10 -5 10 Favours control Orlistat UPDATE adults only 02 Orlistat 360mg/day + diet vs placebo + diet (no specific comorbidities, or mixed) Review Comparison: Outcome 32 Change in SBP in mmHg at 48 months WMD (fixed) WMD (fixed) Weight or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Torgerson 2004 851 -4.90(12.70) 567 -3.40(12.70) 100.00 -1.50 [-2.85, -0.15] Total (95% CI) 851 567 100.00 -1.50 [-2.85, -0.15] Test for heterogeneity: not applicable

-10

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Favours control

Test for overall effect: Z = 2.18 (P = 0.03)

Orlistat UPDATE adults only

03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only)
01 Weight change in kg at 12 months Comparison:

Outcome:

| Study or sub-category   | N         | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------|------------------------------|-----|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |           |                              |     |                             |                       |             |                       |
| Hollander 1998  | 156       | -3.84(5.00)                  | 151 | -1.43(5.10)                 | <del></del>           | 19.80       | -2.41 [-3.54, -1.28]  |
| Kelley 2002   | 266       | -3.89(4.40)                  | 269 | -1.27(4.59)                 | -                     | 43.58       | -2.62 [-3.38, -1.86]  |
| Miles 2002  | 250       | -4.70(4.74)                  | 254 | -1.80(4.78)                 |                       | 36.62       | -2.90 [-3.73, -2.07]  |
| Subtotal (95% CI)   | 672       |                              | 674 |                             | <b>♦</b>              | 100.00      | -2.68 [-3.18, -2.18]  |
| Test for heterogeneity: Chi <sup>2</sup> :<br>Test for overall effect: Z = 10 |           |                              |     |                             |                       |             |                       |
| 02 Weight maintenance   |           |                              |     |                             |                       |             |                       |
| Subtotal (95% CI)   | 0         |                              | 0   |                             |                       |             | Not estimable         |
| Test for heterogeneity: not a   | pplicable |                              |     |                             |                       |             |                       |
| Test for overall effect: not ap   | plicable  |                              |     |                             |                       |             |                       |
|   |           |                              |     |                             | -10 -5 0              | 5 10        |                       |

Favours treatment Favours control

Review: Orlistat UPDATE adults only

Comparison: 03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only)

02 Failure to achieve at least 5% loss of initial body weight at 12 months Outcome:

| Study or sub-category   | Orlistat + diet<br>n/N                       | Placebo + diet<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|---|--|-----------------------|----------------------|-------------|----------------------|
| 01 Weight loss  |  |                       |                      |             |                      |
| Hollander 1998  | 51/100                                       | 77/100                | -                    | 31.05       | 0.66 [0.53, 0.83]    |
| Kelley 2002   | 67/100                                       | 87/100                | -                    | 35.08       | 0.77 [0.66, 0.90]    |
| Miles 2002  | 61/100                                       | 84/100                | -                    | 33.87       | 0.73 [0.61, 0.87]    |
| Subtotal (95% CI)   | 300  | 300                   | <b>◆</b>             | 100.00      | 0.72 [0.65, 0.80]    |
| Total events: 179 (Orlistat + Test for heterogeneity: Chi <sup>2</sup> Test for overall effect: Z = 6 | $= 1.25$ , df $= 2$ (P $= 0.54$ ), $I^2 = 0$ | 0%                    | ·                    |             |                      |
|   | .04 (P < 0.00001)                            |                       |                      |             |                      |
|   |  | 0.1                   | 0.2 0.5 1 2          | 5 10        |                      |

Favours treatment Favours control

Orlistat UPDATE adults only Review:

Comparison: 03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only)

03 Failure to achieve at least 10% loss of initial body weight at 12 months Outcome:

| Study<br>or sub-category                 | Orlistat + diet<br>n/N                  | Placebo + diet<br>n/N |       | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |  |
|--|---|-----------------------|-------|----------------------|-------------|----------------------|--|
| 01 Weight loss                           |   |                       |       |                      |             |                      |  |
| Hollander 1998                           | 82/100                                  | 91/100                |       | =                    | 32.16       | 0.90 [0.81, 1.01]    |  |
| Kelley 2002                              | 90/100                                  | 96/100                |       | <b>=</b>             | 33.92       | 0.94 [0.87, 1.01]    |  |
| Miles 2002                               | 86/100                                  | 96/100                |       | <b>=</b>             | 33.92       | 0.90 [0.82, 0.98]    |  |
| Subtotal (95% CI)                        | 300                                     | 300                   |       | <b>♦</b>             | 100.00      | 0.91 [0.86, 0.96]    |  |
| Total events: 258 (Orlistat +            | diet), 283 (Placebo + diet)             |                       |       |                      |             |                      |  |
| Test for heterogeneity: Chi <sup>2</sup> | $= 0.70$ , df = 2 (P = 0.70), $I^2 = 0$ | 0%                    |       |                      |             |                      |  |
| Test for overall effect: $Z = 3$         | 3.41 (P = 0.0007)                       |                       |       |                      |             |                      |  |
|  |   | 0.                    | 1 0.2 | 0.5 1 2              | 5 10        |                      |  |

Favours treatment Favours control Orlistat UPDATE adults only Review:

Comparison:

03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only) 04 Failure to complete at 12 months Outcome:

| Study or sub-category                    | Orlistat + diet<br>n/N                  | Placebo + diet n/N |            | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |  |
|--|---|--------------------|------------|----------------------|-------------|----------------------|--|
| 01 Weight loss                           |   |                    |            |                      |             |                      |  |
| Hollander 1998                           | 15/100                                  | 28/100             | -          | <del></del>          | 22.58       | 0.54 [0.31, 0.94]    |  |
| Kelley 2002                              | 48/100                                  | 52/100             |            | <del></del>          | 41.94       | 0.92 [0.70, 1.22]    |  |
| Miles 2002                               | 35/100                                  | 44/100             |            | <del></del>          | 35.48       | 0.80 [0.56, 1.13]    |  |
| Subtotal (95% CI)                        | 300                                     | 300                |            | •                    | 100.00      | 0.79 [0.64, 0.97]    |  |
| Total events: 98 (Orlistat +             | diet), 124 (Placebo + diet)             |                    |            | <u> </u>             |             |                      |  |
| Test for heterogeneity: Chi <sup>2</sup> | $= 3.04$ , df = 2 (P = 0.22), $I^2 = 3$ | 34.2%              |            |                      |             |                      |  |
| Test for overall effect: $Z = 2$         | .25 (P = 0.02)                          |                    |            |                      |             |                      |  |
|  |   |                    | 0.1 0.2    | 0.5 1 2              | 5 10        |                      |  |
|  |   |                    | Favours tr | eatment Favours      | control     |                      |  |

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Orlistat UPDATE adults only

03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only)
05 Change in total cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study or sub-category   | N   | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) |    | WMD (fixed)<br>95% CI |     | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|------------------------------|-----|-----------------------------|----|-----------------------|-----|-------------|-----------------------|
| 01 Weight reduction   |     |                              |     |                             |    |                       |     |             |                       |
| Hollander 1998  | 156 | -0.05(0.60)                  | 151 | 0.41(0.70)                  |    | -                     |     | 44.55       | -0.46 [-0.61, -0.31]  |
| Kelley 2002   | 266 | -0.30(1.08)                  | 276 | 0.08(1.08)                  |    | <del></del>           |     | 28.73       | -0.38 [-0.56, -0.20]  |
| Miles 2002  | 250 | -0.27(1.08)                  | 254 | 0.06(1.08)                  |    | <del></del>           |     | 26.72       | -0.33 [-0.52, -0.14]  |
| Subtotal (95% CI)   | 672 |                              | 681 |                             |    | •                     |     | 100.00      | -0.40 [-0.50, -0.30]  |
| Test for heterogeneity: Chi<br>Test for overall effect: Z = 8 |     |                              |     |                             |    |                       |     |             |                       |
|   |     |                              |     |                             | -1 | -0.5 0                | 0.5 | 1           |                       |

Favours treatment Favours control

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Favours control Favours treatment

Orlistat UPDATE adults only

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03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only) 06 Change in LDL cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study or sub-category          | N                   | Orlistat + diet<br>Mean (SD)      | N   | Placebo + diet<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|---------------------|-----------------------------------|-----|-----------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction            |                     |                                   |     |                             |                       |             |                       |
| Hollander 1998                 | 156                 | -0.12(0.50)                       | 151 | 0.22(0.70)                  | _ <del>_</del> _      | 30.17       | -0.34 [-0.48, -0.20]  |
| Kelley 2002                    | 266                 | -0.38(0.74)                       | 276 | -0.08(0.74)                 | - <del></del> -       | 36.18       | -0.30 [-0.42, -0.18]  |
| Miles 2002                     | 250                 | -0.25(0.74)                       | 254 | -0.05(0.74)                 | <del></del> -         | 33.65       | -0.20 [-0.33, -0.07]  |
| Subtotal (95% CI)              | 672                 |                                   | 681 |                             | •                     | 100.00      | -0.28 [-0.35, -0.20]  |
| Test for heterogeneity: Chi2   | e = 2.31, df = 2 (I | P = 0.31), I <sup>2</sup> = 13.5% |     |                             | •                     |             |                       |
| Test for overall effect: Z = 7 | 7.28 (P < 0.0000    | 1)                                |     |                             |                       |             |                       |
|                                |                     | •                                 |     |                             | -1 -0.5 0 0           | 15 1        |                       |

Orlistat UPDATE adults only

Comparison: Outcome: 03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only) 07 Change in HDL cholesterol in mmol/l at 12 months

| Study or sub-category          | N                        | Orlistat + diet<br>Mean (SD)   | N   | Placebo + diet<br>Mean (SD) |    |      | MD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--------------------------------|--------------------------|--------------------------------|-----|-----------------------------|----|------|----------------------|----------|-----------------------|
| 01 Weight reduction            |                          |                                |     |                             |    |      |                      |          |                       |
| Hollander 1998                 | 156                      | 0.06(0.20)                     | 151 | 0.06(0.20)                  |    |      | <b>+</b>             | 38.16    | 0.00 [-0.04, 0.04]    |
| Kelley 2002                    | 266                      | 0.02(0.29)                     | 276 | 0.05(0.29)                  |    |      | #                    | 32.04    | -0.03 [-0.08, 0.02]   |
| Miles 2002                     | 250                      | 0.09(0.29)                     | 254 | 0.10(0.29)                  |    |      | <b>+</b>             | 29.80    | -0.01 [-0.06, 0.04]   |
| Subtotal (95% CI)              | 672                      |                                | 681 |                             |    |      | •                    | 100.00   | -0.01 [-0.04, 0.02]   |
| Test for heterogeneity: Chi2   | $^{2}$ = 0.80, df = 2 (F | P = 0.67), I <sup>2</sup> = 0% |     |                             |    |      | Ì                    |          |                       |
| Test for overall effect: Z = 0 | 0.89 (P = 0.37)          |                                |     |                             |    |      |                      |          |                       |
|                                |                          |                                |     |                             | -1 | -0.5 | 0 0.5                | 1        |                       |

Orlistat UPDATE adults only Review:

03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only) 08 Change in triglycerides in mmol/l at 12 months Comparison: Outcome:

| Study                              |                   | Orlistat + diet                |     | Placebo + diet | WMD (fixed)                   | Weight | WMD (fixed)          |
|------------------------------------|-------------------|--------------------------------|-----|----------------|-------------------------------|--------|----------------------|
| or sub-category                    | N                 | Mean (SD)                      | N   | Mean (SD)      | 95% CI                        | %      | 95% CI               |
| 01 Weight reduction                |                   |                                |     |                |                               |        |                      |
| Hollander 1998                     | 156               | 0.02(0.80)                     | 151 | 0.28(1.00)     | <del></del> -                 | 24.74  | -0.26 [-0.46, -0.06] |
| Kelley 2002                        | 266               | 0.18(0.96)                     | 276 | 0.31(0.96)     | <del></del>                   | 38.99  | -0.13 [-0.29, 0.03]  |
| Miles 2002                         | 250               | -0.25(0.96)                    | 254 | 0.03(0.96)     | <del></del>                   | 36.27  | -0.28 [-0.45, -0.11] |
| Subtotal (95% CI)                  | 672               |                                | 681 |                | <b>◆</b>                      | 100.00 | -0.22 [-0.32, -0.12] |
| Test for heterogeneity: Chi2:      | = 1.83, df = 2 (l | P = 0.40), I <sup>2</sup> = 0% |     |                | -                             |        |                      |
| Test for overall effect: $Z = 4$ . | 20 (P < 0.0001    | )                              |     |                |                               |        |                      |
|                                    |                   |                                |     |                | -1 -0.5 0 0.5                 | 1      |                      |
|                                    |                   |                                |     |                | Favours treatment Favours con | trol   |                      |

Orlistat UPDATE adults only Review:

03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only) 09 Change in HbA1c% at 12 months Comparison:

Outcome:

| Study<br>or sub-category                 | N                   | Orlistat + diet<br>Mean (SD)   | N   | Placebo + diet<br>Mean (SD) |    |      |        | (fixed)<br>% CI |            | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------------------|--------------------------------|-----|-----------------------------|----|------|--------|-----------------|------------|-------------|-----------------------|
| 01 Weight reduction                      |                     |                                |     |                             |    |      |        |                 |            |             |                       |
| Hollander 1998                           | 156                 | -0.15(1.00)                    | 151 | 0.32(1.10)                  |    |      |        |                 |            | 13.28       | -0.47 [-0.71, -0.23]  |
| Kelley 2002                              | 266                 | -0.62(0.76)                    | 276 | -0.27(0.76)                 |    | _    | -      |                 |            | 44.93       | -0.35 [-0.48, -0.22]  |
| Miles 2002                               | 250                 | -0.75(0.76)                    | 254 | -0.41(0.76)                 |    | _    | -      |                 |            | 41.79       | -0.34 [-0.47, -0.21]  |
| Subtotal (95% CI)                        | 672                 |                                | 681 |                             |    | •    | •      |                 |            | 100.00      | -0.36 [-0.45, -0.28]  |
| Test for heterogeneity: Chi <sup>2</sup> | = 0.95, df $= 2$ (F | P = 0.62), I <sup>2</sup> = 0% |     |                             |    |      | •      |                 |            |             |                       |
| Test for overall effect: $Z = 8$         | 3.27 (P < 0.0000    | 1)                             |     |                             |    |      |        |                 |            |             |                       |
|  |                     |                                |     |                             | -1 | -0.5 |        | 0               | 0.5        | 1           |                       |
|  |                     |                                |     |                             |    |      | otmont | _               | ro control |             |                       |

Orlistat UPDATE adults only

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03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only)

10 Change in fasting plasma glucose in mmol/l at 12 months Comparison: Outcome:

| Study or sub-category                    | N               | Orlistat + diet<br>Mean (SD)        | N   | Placebo + diet<br>Mean (SD) |          | WMD (fixed)<br>95% CI | Weight<br>%  | WMD (fixed)<br>95% CI |
|--|-----------------|-------------------------------------|-----|-----------------------------|----------|-----------------------|--------------|-----------------------|
| 01 Weight reduction                      |                 |                                     |     |                             |          |                       |              |                       |
| Hollander 1998                           | 156             | 0.04(1.60)                          | 151 | 0.70(1.80)                  | <b>←</b> | _                     | 28.37        | -0.66 [-1.04, -0.28]  |
| Kelley 2002                              | 266             | -1.63(1.98)                         | 276 | -1.08(1.98)                 |          | <b>—</b>              | 37.11        | -0.55 [-0.88, -0.22]  |
| Miles 2002                               | 250             | -2.00(1.98)                         | 254 | -0.70(1.98)                 | 4        |                       | 34.52        | -1.30 [-1.65, -0.95]  |
| Subtotal (95% CI)                        | 672             |                                     | 681 |                             |          |                       | 100.00       | -0.84 [-1.04, -0.64]  |
| Test for heterogeneity: Chi <sup>2</sup> | = 10.56. df = 2 | (P = 0.005), I <sup>2</sup> = 81.1% |     |                             | _        |                       |              |                       |
| Test for overall effect: Z = 8.          | 11 (P < 0.0000  | 1)                                  |     |                             |          |                       |              |                       |
|  |                 |                                     |     |                             | -1 -0.5  | 5 0 0.5               | <del>-</del> |                       |
|  |                 |                                     |     |                             | -1 -0.5  | 0.5                   | 1            |                       |

Favours treatment Favours control

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Favours treatment Favours control

Orlistat UPDATE adults only

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03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only) 11 Change in DBP in mmHg at 12 months Comparison: Outcome:

| Study or sub-category  | N   | Orlistat + diet<br>Mean (SD)   | N   | Placebo + diet<br>Mean (SD) |     |    | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|--------------------------------|-----|-----------------------------|-----|----|-----------------|-------------|-----------------------|
| 01 Weight reduction  |     |                                |     |                             |     |    |                 |             |                       |
| Hollander 1998   | 156 | -1.01(8.00)                    | 151 | 0.23(8.90)                  |     |    | +               | 35.24       | -1.24 [-3.14, 0.66]   |
| Kelley 2002  | 266 | -2.30(8.30)                    | 276 | -1.00(8.30)                 |     | -  | 1               | 64.77       | -1.30 [-2.70, 0.10]   |
| Subtotal (95% CI)  | 422 |                                | 427 |                             |     | •  | -               | 100.00      | -1.28 [-2.40, -0.15]  |
| Test for heterogeneity: Chir<br>Test for overall effect: Z = 2 |     | P = 0.96), I <sup>2</sup> = 0% |     |                             |     |    |                 |             |                       |
|  |     |                                |     |                             | -10 | -5 | 0 5             | 10          |                       |

Review:

Orlistat UPDATE adults only 03 Orlistat 360mg/day + diet vs placebo + diet (diabetes only) Comparison:

Outcome: 12 Change in SBP in mmHg at 12 months

| Study or sub-category            | N              | Orlistat + diet<br>Mean (SD)      | N   | Placebo + diet<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|----------------|-----------------------------------|-----|-----------------------------|-----|-----------------------|-------------|-----------------------|
| 01 Weight reduction              |                |                                   |     |                             |     |                       |             |                       |
| Hollander 1998                   | 156            | 0.21(12.80)                       | 151 | 4.15(14.20)                 | _   |                       | 20.55       | -3.94 [-6.97, -0.91]  |
| Kelley 2002                      | 266            | -1.20(12.70)                      | 276 | -0.90(12.70)                |     | <del></del>           | 41.16       | -0.30 [-2.44, 1.84]   |
| Miles 2002                       | 250            | -2.10(12.70)                      | 254 | -0.30(12.70)                |     | <del></del>           | 38.29       | -1.80 [-4.02, 0.42]   |
| Subtotal (95% CI)                | 672            |                                   | 681 |                             |     |                       | 100.00      | -1.62 [-2.99, -0.25]  |
| Test for heterogeneity: Chi2 =   | 3.74, df = 2 ( | P = 0.15), I <sup>2</sup> = 46.6% |     |                             |     | <b>*</b>              |             |                       |
| Test for overall effect: Z = 2.3 | 2 (P = 0.02)   |                                   |     |                             |     |                       |             |                       |
|                                  |                |                                   |     |                             | -10 | -5 0 5                | 10          |                       |

Review:

Orlistat UPDATE adults only 04 Orlistat 360mg/day + diet vs placebo + diet (hypertension only) 01 Weight change in kg at 12 months Comparison:

Outcome:

| Study or sub-category          | N                | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) |       |              | ID (fixed)<br>95% CI |           | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|------------------|------------------------------|-----|-----------------------------|-------|--------------|----------------------|-----------|-------------|-----------------------|
| 01 Weight reduction            |                  |                              |     |                             |       |              |                      |           |             |                       |
| Bakris 2002                    | 267              | -5.40(6.40)                  | 265 | -2.70(6.40)                 |       | -            |                      |           | 100.00      | -2.70 [-3.79, -1.61]  |
| Subtotal (95% CI)              | 267              |                              | 265 |                             |       | •            |                      |           | 100.00      | -2.70 [-3.79, -1.61]  |
| Test for heterogeneity: not    | applicable       |                              |     |                             |       | •            |                      |           |             |                       |
| Test for overall effect: Z = 4 | I.87 (P < 0.0000 | 1)                           |     |                             |       |              |                      |           |             |                       |
|                                |                  |                              |     |                             | -10   | -5           | Ö                    | 5         | 10          |                       |
|                                |                  |                              |     |                             | Favou | urs treatmer | t Favour             | rs contro | ol          |                       |

Review: Orlistat UPDATE adults only

Comparison: 04 Orlistat 360mg/day + diet vs placebo + diet (hypertension only) 02 Failure to achieve at least 5% loss of initial body weight at 12 months Outcome:

| Study or sub-category          | Orlistat + diet<br>n/N     | Placebo + diet<br>n/N |     |         |         | t (fixe<br>5% C | ,      |         | Weight<br>% | RR (fixed)<br>95% CI |
|--------------------------------|----------------------------|-----------------------|-----|---------|---------|-----------------|--------|---------|-------------|----------------------|
| 01 Weight loss                 |                            |                       |     |         |         |                 |        |         |             |                      |
| Bakris 2002                    | 54/100                     | 76/100                |     |         | _       | H               |        |         | 100.00      | 0.71 [0.57, 0.88]    |
| Subtotal (95% CI)              | 100                        | 100                   |     |         | •       | •               |        |         | 100.00      | 0.71 [0.57, 0.88]    |
| Total events: 54 (Orlistat +   | diet), 76 (Placebo + diet) |                       |     |         | •       |                 |        |         |             |                      |
| Test for heterogeneity: not    |                            |                       |     |         |         |                 |        |         |             |                      |
| Test for overall effect: Z = 3 |                            |                       |     |         |         |                 |        |         |             |                      |
|                                | · · · · · ·                |                       | 0.1 | 0.2     | 0.5     | +               |        | 5       | 10          |                      |
|                                |                            |                       | 0.1 | 0.2     | 0.0     |                 | _      | 3       | 10          |                      |
|                                |                            |                       | Fa  | vours t | reatmen | t F             | avours | control |             |                      |

Orlistat UPDATE adults only Review: Comparison: 04 Orlistat 360mg/day + diet vs placebo + diet (hypertension only) Outcome: 03 Failure to complete at 12 months Orlistat + diet Placebo + diet RR (fixed) Weight RR (fixed) or sub-category n/N n/N 95% CI 95% CI 01 Weight loss Bakris 2002 42/100 61/100 100.00 0.69 [0.52, 0.91] Subtotal (95% CI) 100 100 100.00 0.69 [0.52, 0.91] Total events: 42 (Orlistat + diet), 61 (Placebo + diet) Test for heterogeneity: not applicable Test for overall effect: Z = 2.63 (P = 0.009) 0.2 0.1 0.5 2 5 10 Favours treatment Favours control Orlistat UPDATE adults only Review: Comparison: 04 Orlistat 360mg/day + diet vs placebo + diet (hypertension only) 04 Change in total cholesterol in mmol/l at 12 months Outcome: Orlistat + diet Mean (SD) Study Placebo + diet WMD (fixed) Weight WMD (fixed) Ν Mean (SD) 95% CI 95% CI or sub-category 01 Weight reduction -0.32 [-0.47, -0.17] -0.32 [-0.47, -0.17] Bakris 2002 -0.36(0.94) 265 -0.04(0.79) 100.00 265 Subtotal (95% CI) 267 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 4.25 (P < 0.0001) -0.5 0.5 Favours treatment Favours control Orlistat UPDATE adults only Review: 04 Orlistat 360mg/day + diet vs placebo + diet (hypertension only) 05 Change in LDL cholesterol in mmol/l at 12 months Comparison: Outcome: Study WMD (fixed) WMD (fixed) Orlistat + diet Placebo + diet Weight or sub-category Mean (SD) Mean (SD) 95% CI 95% CI 01 Weight reduction Bakris 2002 267 -0.31(0.76) 265 -0.11(0.70) 100.00 -0.20 [-0.32, -0.08] -0.20 [-0.32, -0.08] Subtotal (95% CI) 265 267 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 3.16 (P = 0.002) -0.5 0.5 Favours control Favours treatment Review: Orlistat UPDATE adults only Comparison: Outcome: 04 Orlistat 360mg/day + diet vs placebo + diet (hypertension only) 06 Change in DBP in mmHg at 12 months WMD (fixed) WMD (fixed) Study Orlistat + diet Placebo + diet Weight 95% CI or sub-category Mean (SD) Mean (SD) 95% CI 01 Weight reduction Bakris 2002 267 -11.40(8.30) 265 -9.20(8.40) 100.00 -2.20 [-3.62, -0.78] -2.20 [-3.62, -0.78] Subtotal (95% CI) 265 267 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 3.04 (P = 0.002) -10 -5 10 Favours treatment Favours control Orlistat UPDATE adults only 04 Orlistat 360mg/day + diet vs placebo + diet (hypertension only) 07 Change in SBP in mmHg at 12 months Comparison: Outcome:

| Study or sub-category          | N              | Orlistat + diet<br>Mean (SD) | N   | Placebo + diet<br>Mean (SD) |       |               | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|----------------|------------------------------|-----|-----------------------------|-------|---------------|--------------------|-------------|-----------------------|
| 01 Weight reduction            |                |                              |     |                             |       |               |                    |             |                       |
| Bakris 2002                    | 267            | -13.30(15.20)                | 265 | -11.00(15.00)               |       | _             | +                  | 100.00      | -2.30 [-4.87, 0.27]   |
| Subtotal (95% CI)              | 267            |                              | 265 |                             |       |               | ➡                  | 100.00      | -2.30 [-4.87, 0.27]   |
| Test for heterogeneity: not a  | applicable     |                              |     |                             |       | _             |                    |             |                       |
| Test for overall effect: Z = 1 | .76 (P = 0.08) |                              |     |                             |       |               |                    |             |                       |
|                                |                |                              |     |                             | -10   | -5            | 0 5                | 10          |                       |
|                                |                |                              |     |                             | Favoi | urs treatment | Favours co         | ontrol      |                       |

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Orlistat UPDATE adults only

05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester Comparison:

Outcome: 01 Weight change in kg at 6 months

| Study or sub-category   | N               | Orlistat<br>Mean (SD) | N  | Placebo<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------------|-----------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |                 |                       |    |                      |                       |             |                       |
| Broom 2002b   | 66              | -4.40(7.16)           | 71 | -2.60(6.65)          | <del></del>           | 100.00      | -1.80 [-4.12, 0.52]   |
| Subtotal (95% CI)   | 66              |                       | 71 |                      |                       | 100.00      | -1.80 [-4.12, 0.52]   |
| Test for heterogeneity: not                                   | applicable      |                       |    |                      | _                     |             |                       |
| Test for overall effect: Z =                                  | 1.52 (P = 0.13) |                       |    |                      |                       |             |                       |
| Total (95% CI)  | 66              |                       | 71 |                      |                       | 100.00      | -1.80 [-4.12, 0.52]   |
| Test for heterogeneity: not<br>Test for overall effect: Z = 1 |                 |                       |    |                      |                       |             |                       |
|   | ( 0.10)         |                       |    |                      | 10 -5 0 5             | 10          |                       |

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Favours treatment Favours control

Favours control

Review: Orlistat UPDATE adults only

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Comparison: Outcome: 05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester

02 Weight change in kg at 12 months

| Study or sub-category               | N            | Orlistat<br>Mean (SD) | N  | Placebo-orlistat<br>Mean (SD) |        | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-------------------------------------|--------------|-----------------------|----|-------------------------------|--------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                 |              |                       |    |                               |        |                       |             |                       |
| Broom 2002b                         | 66           | -4.97(5.40)           | 71 | -4.28(5.82)                   |        | _                     | 100.00      | -0.69 [-2.57, 1.19]   |
| Subtotal (95% CI)                   | 66           |                       | 71 |                               |        |                       | 100.00      | -0.69 [-2.57, 1.19]   |
| Test for heterogeneity: not app     | olicable     |                       |    |                               |        | 1                     |             |                       |
| Test for overall effect: $Z = 0.72$ | 2 (P = 0.47) |                       |    |                               |        |                       |             |                       |
| Total (95% CI)                      | 66           |                       | 71 |                               |        |                       | 100.00      | -0.69 [-2.57, 1.19]   |
| Test for heterogeneity: not app     | olicable     |                       |    |                               |        | 1                     |             |                       |
| Test for overall effect: $Z = 0.72$ | 2 (P = 0.47) |                       |    |                               |        |                       |             |                       |
|                                     |              |                       |    |                               | -10 -5 | 0 5                   | 10          |                       |

Orlistat UPDATE adults only Review:

05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester Comparison:

03 Failure to achieve at least 5% loss of initial body weight at 6 months Outcome:

| Study or sub-category                  | Orlistat<br>n/N | Placebo<br>n/N |         | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|-----------------|----------------|---------|----------------------|-------------|----------------------|
| 01 Weight loss                         |                 |                |         |                      |             |                      |
| Broom 2002b                            | 37/66           | 58/71          |         |                      | 100.00      | 0.69 [0.54, 0.87]    |
| Subtotal (95% CI)                      | 66              | 71             |         | •                    | 100.00      | 0.69 [0.54, 0.87]    |
| Total events: 37 (Orlistat), 58 (Pla   | cebo)           |                |         | •                    |             |                      |
| Test for heterogeneity: not applica    | able            |                |         |                      |             |                      |
| Test for overall effect: $Z = 3.07$ (P | = 0.002)        |                |         |                      |             |                      |
| 02 Weight maintenance                  |                 |                |         |                      |             |                      |
| Subtotal (95% CI)                      | 0               | 0              |         |                      |             | Not estimable        |
| Total events: 0 (Orlistat), 0 (Place   | bo)             |                |         |                      |             |                      |
| Test for heterogeneity: not applica    | able            |                |         |                      |             |                      |
| Test for overall effect: not applical  | ble             |                |         |                      |             |                      |
|  |                 |                | 0.1 0.2 | 0.5 1 2              | 5 10        |                      |

Favours treatment

Review: Orlistat UPDATE adults only

05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester Comparison:

04 Failure to achieve at least 10% loss of initial body weight at 6 months Outcome:

| Study or sub-category                      | Orlistat<br>n/N | Placebo<br>n/N |             | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|-----------------|----------------|-------------|----------------------|-------------|----------------------|
| 01 Weight loss                             |                 |                |             |                      |             |                      |
| Broom 2002b                                | 61/66           | 68/71          |             |                      | 100.00      | 0.97 [0.89, 1.05]    |
| Subtotal (95% CI)                          | 66              | 71             |             | ₹                    | 100.00      | 0.97 [0.89, 1.05]    |
| Total events: 61 (Orlistat), 68 (Placeb    | 0)              |                |             | ]                    |             |                      |
| Test for heterogeneity: not applicable     |                 |                |             |                      |             |                      |
| Test for overall effect: $Z = 0.82$ (P = 0 |                 |                |             |                      |             |                      |
| 02 Weight maintenance                      |                 |                |             |                      |             |                      |
| Subtotal (95% CI)                          | 0               | 0              |             |                      |             | Not estimable        |
| Total events: 0 (Orlistat), 0 (Placebo)    |                 |                |             |                      |             |                      |
| Test for heterogeneity: not applicable     |                 |                |             |                      |             |                      |
| Test for overall effect: not applicable    |                 |                |             |                      |             |                      |
|  |                 |                | 0.1 0.2     | 0.5 1 2              | 5 10        |                      |
|  |                 |                | Favours tre | atment Favours       | control     |                      |

Review: Orlistat UPDATE adults only

Comparison: 05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester

Outcome: 05 Failure to complete at 6 months

| 23/71    | 11/71           |                           | 100.00                   | 2.09 [1.10, 3.96]                 |
|----------|-----------------|---------------------------|--------------------------|-----------------------------------|
| 71       | 71              |                           | 100.00                   | 2.09 [1.10, 3.96]                 |
| rlistat) |                 |                           |                          |                                   |
| ,        |                 |                           |                          |                                   |
| )        |                 |                           |                          |                                   |
|          |                 |                           |                          |                                   |
| 0        | 0               |                           |                          | Not estimable                     |
| stat)    |                 |                           |                          |                                   |
| ,        |                 |                           |                          |                                   |
|          |                 |                           |                          |                                   |
| 2        | 71<br>orlistat) | 71 71 71 orlistat) 2) 0 0 | 71 71 orlistat)  2)  0 0 | 71 71 100.00 orlistat) 100.00 0 0 |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: Orlistat UPDATE adults only

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05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester 06 Change in total cholesterol in mmol/l at 6 months

Comparison: Outcome:

| Study or sub-category          | N                 | Orlistat<br>Mean (SD) | N  | Placebo<br>Mean (SD) | V       | VMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-------------------|-----------------------|----|----------------------|---------|-----------------------|-------------|-----------------------|
| 01 Weight reduction            |                   |                       |    |                      |         |                       |             |                       |
| Broom 2002b                    | 66                | -0.83(0.12)           | 71 | -0.27(0.10)          | _       |                       | 100.00      | -0.56 [-0.60, -0.52]  |
| Subtotal (95% CI)              | 66                |                       | 71 |                      | ▼       |                       | 100.00      | -0.56 [-0.60, -0.52]  |
| Test for heterogeneity: not    | applicable        |                       |    |                      | ·       |                       |             |                       |
| Test for overall effect: Z = 2 | 29.55 (P < 0.000) | 01)                   |    |                      |         |                       |             |                       |
| Total (95% CI)                 | 66                |                       | 71 |                      | •       |                       | 100.00      | -0.56 [-0.60, -0.52]  |
| Test for heterogeneity: not    | applicable        |                       |    |                      | ·       |                       |             |                       |
| Test for overall effect: Z = 2 | 29.55 (P < 0.000) | 01)                   |    |                      |         |                       |             |                       |
|                                |                   |                       |    |                      | -1 -0.5 | 0 0.5                 | 1           |                       |

Review:

05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester 07 Change in LDL cholesterol in mmol/l at 6 months Comparison:

Outcome:

| Study or sub-category        | N                | Orlistat<br>Mean (SD) | N  | Placebo<br>Mean (SD) |    | WMD (fixe<br>95% CI | ,      | WMD (fixed)<br>95% CI |
|------------------------------|------------------|-----------------------|----|----------------------|----|---------------------|--------|-----------------------|
| 01 Weight reduction          |                  |                       |    |                      |    |                     |        |                       |
| Broom 2002b                  | 66               | -0.71(0.12)           | 71 | -0.31(0.12)          |    |                     | 100.00 | -0.40 [-0.44, -0.36]  |
| Subtotal (95% CI)            | 66               |                       | 71 |                      |    | <b>→</b>            | 100.00 | -0.40 [-0.44, -0.36]  |
| Test for heterogeneity: not  | applicable       |                       |    |                      |    |                     |        |                       |
| Test for overall effect: Z = | 19.49 (P < 0.000 | 01)                   |    |                      |    |                     |        |                       |
| Total (95% CI)               | 66               |                       | 71 |                      |    | •                   | 100.00 | -0.40 [-0.44, -0.36]  |
| Test for heterogeneity: not  | applicable       |                       |    |                      |    | ·                   |        |                       |
| Test for overall effect: Z = | 19.49 (P < 0.000 | 01)                   |    |                      |    |                     |        |                       |
|                              |                  |                       |    |                      | -1 | -0.5 0              | 0.5 1  |                       |

Orlistat UPDATE adults only Review:

Comparison: 05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester

Outcome: 08 Change in HDL cholesterol in mmol/l at 6 months

| Study<br>or sub-category         | N          | Orlistat<br>Mean (SD) | N  | Placebo<br>Mean (SD) |     |            | MD (fixed<br>95% CI | d)           | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|------------|-----------------------|----|----------------------|-----|------------|---------------------|--------------|-------------|-----------------------|
| 01 Weight reduction              |            |                       |    |                      |     |            |                     |              |             |                       |
| Broom 2002b                      | 66         | -0.19(0.10)           | 71 | -0.11(0.03)          |     |            |                     |              | 100.00      | -0.08 [-0.11, -0.05]  |
| Subtotal (95% CI)                | 66         |                       | 71 |                      |     |            | •                   |              | 100.00      | -0.08 [-0.11, -0.05]  |
| Test for heterogeneity: not a    | applicable |                       |    |                      |     |            | 1                   |              |             |                       |
| Test for overall effect: $Z = 6$ |            | 1)                    |    |                      |     |            |                     |              |             |                       |
| Total (95% CI)                   | 66         |                       | 71 |                      |     |            | •                   |              | 100.00      | -0.08 [-0.11, -0.05]  |
| est for heterogeneity: not a     | applicable |                       |    |                      |     |            | 1                   |              |             |                       |
| Test for overall effect: $Z = 6$ |            | 1)                    |    |                      |     |            |                     |              |             |                       |
|                                  |            |                       |    |                      | -1  | -0.5       | 0                   | 0.5          | 1           |                       |
|                                  |            |                       |    |                      | Fav | vours cont | rol Fa              | vours treatm | ent         |                       |

Orlistat UPDATE adults only

05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester Comparison:

09 Change in triglycerides in mmol/l at 6 months Outcome:

| Study or sub-category        | N                | Orlistat<br>Mean (SD) | N  | Placebo<br>Mean (SD) | WMD (fi:<br>95% ( |        | WMD (fixed)<br>95% CI |
|------------------------------|------------------|-----------------------|----|----------------------|-------------------|--------|-----------------------|
| 01 Weight reduction          |                  |                       |    |                      |                   |        |                       |
| Broom 2002b                  | 66               | -0.15(0.25)           | 71 | -0.42(0.26)          |                   | 100.00 | 0.27 [0.18, 0.36]     |
| Subtotal (95% CI)            | 66               |                       | 71 |                      |                   | 100.00 | 0.27 [0.18, 0.36]     |
| Test for heterogeneity: not  | t applicable     |                       |    |                      |                   | •      |                       |
| Test for overall effect: Z = | 6.20 (P < 0.0000 | 1)                    |    |                      |                   |        |                       |
| Total (95% CI)               | 66               |                       | 71 |                      |                   | 100.00 | 0.27 [0.18, 0.36]     |
| Test for heterogeneity: not  | t applicable     |                       |    |                      |                   | •      |                       |
| Test for overall effect: Z = | 6.20 (P < 0.0000 | 1)                    |    |                      |                   |        |                       |
|                              |                  |                       |    | -                    | 1 -0.5 0          | 0.5 1  |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: Orlistat UPDATE adults only

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Comparison: 05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester

Outcome: 10 Change in fasting plasma glucose in mmol/l at 6 months

| Study or sub-category                            | N          | Orlistat<br>Mean (SD) | N  | Placebo-orlistat<br>Mean (SD) |       | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|------------|-----------------------|----|-------------------------------|-------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                              |            |                       |    |                               |       |                       |             |                       |
| Broom 2002b                                      | 66         | -0.41(1.98)           | 71 | 0.12(1.98)                    | ←     | <del></del>           | 100.00      | -0.53 [-1.19, 0.13]   |
| Subtotal (95% CI)                                | 66         |                       | 71 |                               |       |                       | 100.00      | -0.53 [-1.19, 0.13]   |
| Test for heterogeneity: not appli                | cable      |                       |    |                               |       |                       |             |                       |
| Test for overall effect: Z = 1.57                | (P = 0.12) |                       |    |                               |       |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not appli | 66         |                       | 71 |                               |       |                       | 100.00      | -0.53 [-1.19, 0.13]   |
| Test for overall effect: Z = 1.57                |            |                       |    |                               |       |                       |             |                       |
|  |            |                       |    |                               | -1 -0 | .5 0 0.5              | 1           |                       |

Review: Orlistat UPDATE adults only

Comparison: 05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester

Outcome: 11 Change in total cholesterol in mmol/l at 12 months

| Study or sub-category             | N          | Orlistat<br>Mean (SD) | N  | Placebo-orlistat<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|-----------------------|----|-------------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction               |            |                       |    |                               |                       |             |                       |
| Broom 2002b                       | 66         | -0.96(1.04)           | 71 | -0.67(1.04)                   | <del></del>           | 100.00      | -0.29 [-0.64, 0.06]   |
| Subtotal (95% CI)                 | 66         |                       | 71 |                               |                       | 100.00      | -0.29 [-0.64, 0.06]   |
| Test for heterogeneity: not appl  | licable    |                       |    |                               |                       |             |                       |
| Test for overall effect: Z = 1.63 | (P = 0.10) |                       |    |                               |                       |             |                       |
| Total (95% CI)                    | 66         |                       | 71 |                               |                       | 100.00      | -0.29 [-0.64, 0.06]   |
| Test for heterogeneity: not app   | licable    |                       |    |                               |                       |             |                       |
| Test for overall effect: Z = 1.63 | (P = 0.10) |                       |    |                               |                       |             |                       |
|                                   |            |                       |    |                               | -1 -0.5 0 0.5         | 1           |                       |

Orlistat UPDATE adults only

05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester Comparison:

Outcome: 12 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category   | N  | Orlistat<br>Mean (SD) | N  | Placebo-orlistat<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|-----------------------|----|-------------------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |    |                       |    |                               |                       |             |                       |
| Broom 2002b   | 66 | -0.91(1.00)           | 71 | -0.40(1.05)                   | <del></del>           | 100.00      | -0.51 [-0.85, -0.17]  |
| Subtotal (95% CI)   | 66 |                       | 71 |                               |                       | 100.00      | -0.51 [-0.85, -0.17]  |
| Test for heterogeneity: not appl<br>Test for overall effect: Z = 2.91             |    |                       |    |                               |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not appl Test for overall effect: Z = 2.91 |    |                       | 71 |                               |                       | 100.00      | -0.51 [-0.85, -0.17]  |
|   |    |                       |    |                               | -1 -0.5 0 0.5         | 1           |                       |

Review: Orlistat UPDATE adults only

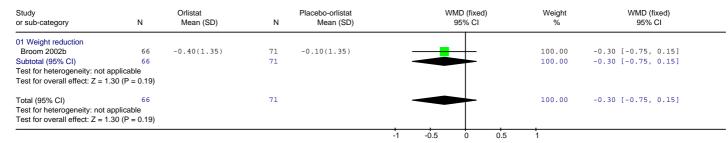
Comparison: Outcome: 05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester 13 Change in HDL cholesterol in mmol/l at 12 months

| Study or sub-category                  | N  | Orlistat<br>Mean (SD) | N  | Placebo-orlistat<br>Mean (SD) |     | WMD (fi<br>95% ( | ,               | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|-----------------------|----|-------------------------------|-----|------------------|-----------------|-------------|-----------------------|
| 01 Weight reduction                    |    |                       |    |                               |     |                  |                 |             |                       |
| Broom 2002b                            | 66 | -0.29(0.45)           | 71 | -0.23(0.29)                   |     | -                |                 | 100.00      | -0.06 [-0.19, 0.07]   |
| Subtotal (95% CI)                      | 66 |                       | 71 |                               |     | -                |                 | 100.00      | -0.06 [-0.19, 0.07]   |
| Test for heterogeneity: not applicable | le |                       |    |                               |     | 1                |                 |             |                       |
| Test for overall effect: Z = 0.92 (P = |    |                       |    |                               |     |                  |                 |             |                       |
| Total (95% CI)                         | 66 |                       | 71 |                               |     |                  |                 | 100.00      | -0.06 [-0.19, 0.07]   |
| Test for heterogeneity: not applicable | le |                       |    |                               |     | 1                |                 |             |                       |
| Test for overall effect: Z = 0.92 (P = |    |                       |    |                               |     |                  |                 |             |                       |
|  |    |                       |    |                               | -1  | -0.5 0           | 0.5             | 1           |                       |
|  |    |                       |    |                               | Fav | ours control     | Favours treatme | ent         |                       |

Orlistat UPDATE adults only

05 Orlistat 360mg/day+diet vs placebo (24 weeks)+diet then orlistat 360mg/day (28 weeks) +diet (high cholester Comparison:

14 Change in fasting plasma glucose in mmol/l at 12 months



Review: Orlistat UPDATE adults only

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Comparison: 06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities)

Outcome: 01 Weight change in kg at 6 months

| Study or sub-category   | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |        | D (fixed)<br>5% CI | Weight % | WMD (fixed)<br>95% CI |
|---|----|---------------------------|----|----------------------|--------|--------------------|----------|-----------------------|
| Poston 2003   | 56 | -5.20(7.39)               | 52 | -1.00(6.20)          | -      |                    | 100.00   | -4.20 [-6.77, -1.63]  |
| Total (95% CI) Test for heterogeneity: not appl Test for overall effect: Z = 3.21 |    |                           | 52 |                      | •      |                    | 100.00   | -4.20 [-6.77, -1.63]  |
|   |    |                           |    |                      | -10 -5 | 0 5                | 10       |                       |

Favours treatment

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Favours treatment Favours control

Favours control

Favours control

Orlistat UPDATE adults only Review:

06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) 02 Weight change in kg at 12 months Comparison:

Outcome:

| Study or sub-category  | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |     |    | MD (fixed)<br>95% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|---------------------------|----|----------------------|-----|----|----------------------|---|-------------|-----------------------|
| Poston 2003  | 56 | -5.60(7.50)               | 52 | -0.30(6.00)          | _   | -  |                      |   | 100.00      | -5.30 [-7.85, -2.75]  |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 4. |    | )                         | 52 |                      |     | •  |                      |   | 100.00      | -5.30 [-7.85, -2.75]  |
|  |    |                           |    |                      | -10 | -5 | 0                    | 5 | 10          |                       |

Orlistat UPDATE adults only Review:

06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) Comparison:

Outcome: 03 Failure to achieve at least 5% loss of initial body weight at 12 months

| or sub-category                        | n/N        | n/N    | 9 | R (fixed)<br>5% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|------------|--------|---|--------------------|-------------|----------------------|
| 01 Weight loss                         |            |        |   |                    |             |                      |
| Poston 2003                            | 40/100     | 88/100 | - |                    | 100.00      | 0.45 [0.35, 0.58]    |
| Subtotal (95% CI)                      | 100        | 100    | • |                    | 100.00      | 0.45 [0.35, 0.58]    |
| Total events: 40 (Intervention), 88    | (Control)  |        | • |                    |             |                      |
| Test for heterogeneity: not applicable | ole        |        |   |                    |             |                      |
| Test for overall effect: Z = 6.16 (P < | < 0.00001) |        |   |                    |             |                      |

Orlistat UPDATE adults only Review:

06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) Comparison:

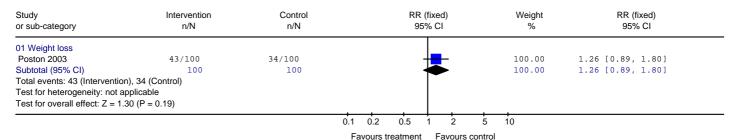
04 Failure to achieve at least 10% loss of initial body weight at 12 months Outcome:

| Study<br>or sub-category           | Intervention n/N | Control<br>n/N |     |          |          | (fixed | ,      |         | Weight<br>% | RR (fixed)<br>95% CI |
|------------------------------------|------------------|----------------|-----|----------|----------|--------|--------|---------|-------------|----------------------|
| 01 Weight loss                     |                  |                |     |          |          |        |        |         |             |                      |
| Poston 2003                        | 69/100           | 93/100         |     |          |          |        |        |         | 100.00      | 0.74 [0.64, 0.86]    |
| Subtotal (95% CI)                  | 100              | 100            |     |          | •        | -      |        |         | 100.00      | 0.74 [0.64, 0.86]    |
| Total events: 69 (Interventio      | n), 93 (Control) |                |     |          | •        |        |        |         |             |                      |
| Test for heterogeneity: not a      | pplicable        |                |     |          |          |        |        |         |             |                      |
| Test for overall effect: $Z = 4$ . | .12 (P < 0.0001) |                |     |          |          |        |        |         |             |                      |
|                                    |                  |                | 0.1 | 0.2      | 0.5      | 1      | 2      | 5       | 10          |                      |
|                                    |                  |                | Fa  | avours t | reatment | Fa     | avours | control |             |                      |

Orlistat UPDATE adults only Review:

Comparison: 06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities)

Outcome: 05 Failure to complete at 12 months



Review: Orlistat UPDATE adults only

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Comparison: 06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities)

Outcome: 06 Change in total cholesterol in mmol/l at 6 months

| Study or sub-category  | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixe<br>95% CI |     | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|---------------------------|----|----------------------|----|---------------------|-----|-------------|-----------------------|
| Poston 2003  | 56 | -0.74(1.08)               | 52 | -0.02(1.08)          | ←  |                     |     | 100.00      | -0.72 [-1.13, -0.31]  |
| Total (95% CI) Test for heterogeneity: not appress for overall effect: Z = 3.4 |    | )                         | 52 |                      |    |                     |     | 100.00      | -0.72 [-1.13, -0.31]  |
|  |    |                           |    |                      | -1 | -0.5 0              | 0.5 | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours control

Favours treatment Favours control

Favours treatment

06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) 07 Change in LDL cholesterol in mmol/l at 6 months Comparison:

Outcome

| Study or sub-category  | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |       | WMD (fix<br>95% ( |     | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|---------------------------|----|----------------------|-------|-------------------|-----|-------------|-----------------------|
| Poston 2003  | 56 | -0.58(0.74)               | 52 | 0.03(0.74)           | -     | -                 |     | 100.00      | -0.61 [-0.89, -0.33]  |
| Total (95% CI) Test for heterogeneity: not applic Test for overall effect: Z = 4.28 (I |    |                           | 52 |                      | •     | <b>&gt;</b>       |     | 100.00      | -0.61 [-0.89, -0.33]  |
|  |    |                           |    |                      | -1 -( | 0.5 0             | 0.5 | 1           |                       |

Orlistat UPDATE adults only

Comparison: Outcome: 06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) 08 Change in HDL cholesterol in mmol/l at 6 months

| Study or sub-category   | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|---------------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| Poston 2003   | 56 | -0.20(0.29)               | 52 | -0.06(0.29)          |    | -                     | 100.00      | -0.14 [-0.25, -0.03]  |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2 |    |                           | 52 |                      |    | •                     | 100.00      | -0.14 [-0.25, -0.03]  |
|   |    |                           |    |                      | -1 | -0.5 0 0.5            | 1           |                       |

Orlistat UPDATE adults only

06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) Comparison:

Outcome: 09 Change in triglycerides in mmol/l at 6 months

| Study or sub-category  | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (<br>95% |     | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|---------------------------|----|----------------------|----|--------------|-----|-------------|-----------------------|
| Poston 2003  | 56 | 0.09(0.96)                | 52 | 0.01(0.96)           |    | -            | _   | 100.00      | 0.08 [-0.28, 0.44]    |
| Total (95% CI) Test for heterogeneity: not app Test for overall effect: Z = 0.43 |    |                           | 52 |                      |    |              |     | 100.00      | 0.08 [-0.28, 0.44]    |
|  |    |                           |    |                      | -1 | -0.5 0       | 0.5 | 1           |                       |

Orlistat UPDATE adults only

06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) 10 Change in DBP in mmHg at 6 months Comparison:

Outcome:

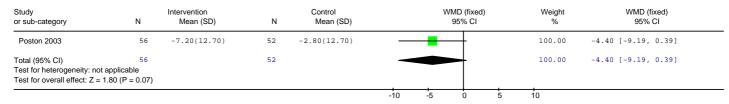
| Study or sub-category   | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |       |              | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|---------------------------|----|----------------------|-------|--------------|----------------------|-------------|-----------------------|
| Poston 2003   | 56 | -6.80(8.30)               | 52 | -3.30(8.30)          |       | -            | _                    | 100.00      | -3.50 [-6.63, -0.37]  |
| Total (95% CI) Test for heterogeneity: not Test for overall effect: Z = |    |                           | 52 |                      |       | <b>~</b>     | -                    | 100.00      | -3.50 [-6.63, -0.37]  |
|   |    |                           |    |                      | -10   | -5           | 0 5                  | 10          |                       |
|   |    |                           |    |                      | Favou | ırs treatmer | nt Favours co        | ntrol       |                       |

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Orlistat UPDATE adults only

06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) Comparison:

11 Change in SBP in mmHg at 6 months



Favours treatment

Favours treatment Favours control

Favours control

Favours treatment

Favours control

Orlistat UPDATE adults only

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06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) 12 Change in total cholesterol in mmol/l at 12 months

Comparison: Outcome:

| Study or sub-category   | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |         |           | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|---------------------------|----|----------------------|---------|-----------|-----------------|-------------|-----------------------|
| Poston 2003   | 56 | -0.35(1.08)               | 52 | 0.16(1.08)           |         | _         |                 | 100.00      | -0.51 [-0.92, -0.10]  |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2 |    |                           | 52 |                      |         |           |                 | 100.00      | -0.51 [-0.92, -0.10]  |
|   |    |                           |    |                      | -1 -    | 0.5       | 0 0.5           | 1           |                       |
|   |    |                           |    |                      | Favours | treatment | Favours control |             |                       |

Orlistat UPDATE adults only 06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) Comparison:

13 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category  | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |    |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|---------------------------|----|----------------------|----|------|-----------------|-------------|-----------------------|
| Poston 2003  | 56 | -0.47(0.74)               | 52 | -0.10(0.74)          |    | -    |                 | 100.00      | -0.37 [-0.65, -0.09]  |
| Total (95% CI) Test for heterogeneity: not applic Test for overall effect: Z = 2.60 (F |    |                           | 52 |                      |    | •    |                 | 100.00      | -0.37 [-0.65, -0.09]  |
|  |    | •                         | •  |                      | -1 | -0.5 | 0 0.5           | 1           |                       |

Orlistat UPDATE adults only 06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) Comparison:

14 Change in HDL cholesterol in mmol/l at 12 months

| Study<br>or sub-category   | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|---------------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| Poston 2003  | 56 | 0.00(0.29)                | 52 | 0.06(0.29)           |    | -                     | 100.00      | -0.06 [-0.17, 0.05]   |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 1.0 |    |                           | 52 |                      |    | •                     | 100.00      | -0.06 [-0.17, 0.05]   |
|  |    |                           |    |                      | -1 | -0.5 0 0.5            | 1           |                       |

Review:

Orlistat UPDATE adults only 06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) Comparison:

Outcome: 15 Change in triglycerides in mmol/l at 12 months

| Study or sub-category   | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|---------------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| Poston 2003   | 56 | 0.27(0.96)                | 52 | 0.51(0.96)           |    | -                     | 100.00      | -0.24 [-0.60, 0.12]   |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 1 |    |                           | 52 |                      |    |                       | 100.00      | -0.24 [-0.60, 0.12]   |
|   |    |                           |    |                      | -1 | -0.5 0                | 0.5 1       |                       |

Review:

Orlistat UPDATE adults only 06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) Comparison:

Outcome: 16 Change in DBP in mmHg at 12 months

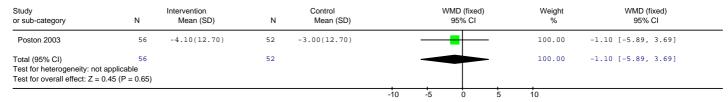
| Study<br>or sub-category   | N  | Intervention<br>Mean (SD) | N  | Control<br>Mean (SD) |       |              | D (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|---------------------------|----|----------------------|-------|--------------|--------------------|-------------|-----------------------|
| Poston 2003  | 56 | -4.30(8.30)               | 52 | -3.70(8.30)          |       |              | _                  | 100.00      | -0.60 [-3.73, 2.53]   |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 0. |    |                           | 52 |                      |       |              |                    | 100.00      | -0.60 [-3.73, 2.53]   |
| •  |    |                           |    |                      | -10   | -5           | 0 5                | 10          |                       |
|  |    |                           |    |                      | Favor | ire treatmen | t Favoure con      | otrol       |                       |

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Orlistat UPDATE adults only

06 Orlistat 360mg/day + lifestyle modification vs control (no intervention) (no specific comorbidities) Comparison:

17 Change in SBP in mmHg at 12 months



Orlistat UPDATE adults only

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Review

07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb 01 Weight change in kg at 12 months Comparison:

Outcome:

Orlistat + 1000kcal Orlistat + 500kcal WMD (fixed) Weight WMD (fixed) Study or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Toplak 2005 154 -9.52(7.52) 141 -8.62(6.61) 100.00 -0.90 [-2.51, 0.71] 141 Total (95% CI) 100.00 -0.90 [-2.51, 0.71] Test for heterogeneity: not applicable Test for overall effect: Z = 1.09 (P = 0.27) -10 -5 Ö 5 10

Orlistat UPDATE adults only

Comparison: 07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb

Outcome: 02 Failure to achieve at least 5% loss of initial body weight at 12 months

| Study or sub-category | Orlistat + 1000kcal<br>n/N | Orlistat + 500kcal<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|-----------------------|----------------------------|---------------------------|----------------------|-------------|----------------------|
| Toplak 2005           | 15/100                     | 16/100                    |                      | 100.00      | 0.94 [0.49, 1.79]    |
| •                     |                            |                           | 0.1 0.2 0.5 1 2      | 5 10        |                      |

Favours treatment Favours control

Favours control

Favours treatment

Favours treatment

Favours control

Orlistat UPDATE adults only Review:

Comparison: 07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb

03 Failure to achieve at least 10% loss of initial body weight at 12 months Outcome:

| Study<br>or sub-category | Orlistat + 1000kcal<br>n/N | Orlistat + 500kcal<br>n/N |       |     |     | (fixed<br>% CI | , |   | Weight<br>% | RR (fixed)<br>95% CI |   |
|--------------------------|----------------------------|---------------------------|-------|-----|-----|----------------|---|---|-------------|----------------------|---|
| Toplak 2005              | 47/100                     | 50/100                    |       |     |     | -              |   | , | 100.00      | 0.94 [0.71, 1.25]    | _ |
| •                        |                            |                           | 0.1 0 | ).2 | 0.5 | 1              | 2 | 5 | 10          |                      |   |

Orlistat UPDATE adults only

Comparison: 07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb

04 Failure to complete at 12 months

| Study<br>or sub-category | Orlistat + 1000kcal<br>n/N | Orlistat + 500kcal<br>n/N |             | R (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--------------------------|----------------------------|---------------------------|-------------|---------------------|-------------|----------------------|
| Toplak 2005              | 35/100                     | 42/100                    |             |                     | 100.00      | 0.83 [0.59, 1.19]    |
| •                        |                            |                           | 0.1 0.2 0.5 | 1 2                 | 5 10        |                      |

Favours treatment

Favours treatment Favours control Orlistat UPDATE adults only

Comparison: 07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb Outcome: 05 Change in total cholesterol in mmol/l at 12 months

| Study or sub-category  | N C | Prlistat + 1000kcal<br>Mean (SD) | N   | Orlistat + 500kcal<br>Mean (SD) |            |      | ID (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|----------------------------------|-----|---------------------------------|------------|------|----------------------|-------------|-----------------------|
| Toplak 2005  | 154 | -0.39(1.08)                      | 141 | -0.34(1.08)                     |            | -    | -                    | 100.00      | -0.05 [-0.30, 0.20]   |
| Total (95% CI) Test for heterogeneity: no Test for overall effect: Z = |     |                                  | 141 |                                 |            | •    |                      | 100.00      | -0.05 [-0.30, 0.20]   |
|  |     |                                  |     |                                 | -1<br>Favo | -0.5 | 0 0.5                | 1           |                       |

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Orlistat UPDATE adults only 07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb Comparison: 06 Change in LDL cholesterol in mmol/l at 12 months Orlistat + 1000kcal Orlistat + 500 kcal WMD (fixed) WMD (fixed) Weight Study Ν Mean (SD) Ν 95% CI or sub-category Mean (SD) 154 -0.37(0.74) 141 -0.34(0.74) 100.00 -0.03 [-0.20, 0.14] Toplak 2005 154 100.00 -0.03 [-0.20, 0.14] Total (95% CI) Test for heterogeneity: not applicable Test for overall effect: Z = 0.35 (P = 0.73) -0.5 0.5 Favours treatment Favours control Review: Orlistat UPDATE adults only 07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb 07 Change in HDL cholesterol in mmol/l at 12 months Comparison: Outcome: Orlistat + 500kcal WMD (fixed) WMD (fixed) Study Orlistat + 1000kcal Weight Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI or sub-category Toplak 2005 154 0.09(0.29) 141 0.05(0.29) 100.00 0.04 [-0.03, 0.11] Total (95% CI) 141 100.00 0.04 [-0.03, 0.11] Test for heterogeneity: not applicable Test for overall effect: Z = 1.18 (P = 0.24) -0.5 0.5 Favours control Orlistat UPDATE adults only
07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb Comparison: 08 Change in FPG in mmol/l at 12 months Outcome WMD (fixed) Study Orlistat + 1000kcal Orlistat + 500kcal Weight WMD (fixed) or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI Toplak 2005 154 -0.20(0.60) 141 0.00(1.90) 100.00 -0.20 [-0.53, 0.13] -0.5 0.5 Favours treatment Favours control Orlistat UPDATE adults only Review Comparison 07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb Outcome: 09 Change in triglycerides in mmol/l at 12 months Orlistat + 1000kca Orlistat + 500kcal WMD (fixed) Weight WMD (fixed) Mean (SD) or sub-category Ν Ν Mean (SD) 95% CI % 95% CI 154 0.04(0.96) 141 0.00(0.96) 100.00 0.04 [-0.18, 0.26] Toplak 2005 Total (95% CI) 154 141 100.00 0.04 [-0.18, 0.26] Test for heterogeneity: not applicable Test for overall effect: Z = 0.36 (P = 0.72) -0.5 0.5 Favours control Orlistat UPDATE adults only Review Comparison: 07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb 10 Change in DBP in mmHg at 12 months Outcome Study Orlistat + 1000kca Orlistat + 500kcal WMD (fixed) Weight WMD (fixed) 95% CI Ν 95% CI or sub-category Mean (SD) Ν Mean (SD) -3.80(8.50) Toplak 2005 154 141 -2.60(9.60) 100.00 -1.20 [-3.28, 0.88] -10 -5 ò 5 10 Favours control Favours treatment Orlistat UPDATE adults only
07 Orlistat 360mg/day+1000kcal/day deficit diet vs orlistat 360mg/day+500kcal/day deficit diet (no spec comorb
11 Change in SBP in mmHg at 12 months Comparison: Study WMD (fixed) Orlistat + 1000kca Orlistat + 500kcal WMD (fixed) Weight or sub-category N Mean (SD) N Mean (SD) 95% CI 95% CI 154 -6.00(13.90) 141 -6.00(13.00) 100.00 0.00 [-3.07, 3.07] Toplak 2005 -10 10

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Favours control

Favours treatment

#### Sibutramine 3.5

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Sibutramine UPDATE adults only 01 Sibutramine and diet vs placebo and diet (all studies) 01 Weight change in kg at 12 months

Outcome

WMD (fixed) Weight WMD (fixed) Mean (SD) Mean (SD) or sub-category Ν 95% CI 95% CI 01 Weight reduction Apfelbaum 1999 McMahon 2000 81 -5.20(7.50) 0.50(5.70) 10.77 -5.70 [-7.77, -3.63] -4.40(7.16) -7.10(7.92) -0.50(6.06) -2.60(6.65) 13.39 -3.90 [-5.75, -2.05] -4.50 [-6.48, -2.52] NEW Kaukua 2004 102 108 13.88 13.90 9.12 14.13 13.13 -4.50(7.19) -5.50(4.95) -8.00(7.09) -4.10 [-5.92, -2.28] -5.30 [-7.12, -3.48] -7.80 [-10.04, -5.56] NEW McMahon 2002 NEW McNulty 2003a 72 32 -0.40(6.03) -0.20(4.00) NEW McNulty 2003b 62 32 -0.20(4.00) Smith 2001a Smith 2001b 154 153 -4.40(7.16) -6.41(7.73) -2.80 [-4.60, -1.00] -4.81 [-6.68, -2.94] -4.71 [-5.38, -4.03] -1.60(6.37) 548 Subtotal (95% CI) 907 100.00 Test for heterogeneity: Chi<sup>2</sup> = 14.10, df = 7 (P = 0.05),  $I^2$  = 50.4% Test for overall effect: Z = 13.61 (P < 0.00001) 10

Sibutramine UPDATE adults only

Comparison: 01 Sibutramine and diet vs placebo and diet (all studies)

Outcome: 02 Weight change in kg at 15 months

| Study or sub-category          | N               | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |     |    | D (fixed)<br>5% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|------------------------|----|----------------------|-----|----|--------------------|---|-------------|-----------------------|
| 01 Weight reduction            |                 |                        |    |                      |     |    |                    |   |             |                       |
| Apfelbaum 1999                 | 81              | -0.90(6.17)            | 78 | 2.80(6.71)           |     | _  |                    |   | 100.00      | -3.70 [-5.71, -1.69]  |
| Subtotal (95% CI)              | 81              |                        | 78 |                      |     |    |                    |   | 100.00      | -3.70 [-5.71, -1.69]  |
| Test for heterogeneity: not a  | applicable      |                        |    |                      |     | _  |                    |   |             |                       |
| Test for overall effect: Z = 3 | .62 (P = 0.0003 | )                      |    |                      |     |    |                    |   |             |                       |
|                                |                 |                        |    |                      | -10 | -5 | 0                  | 5 | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Sibutramine UPDATE adults only

Comparison: Outcome: 01 Sibutramine and diet vs placebo and diet (all studies) 03 Weight change in kg at 18 months

| Study or sub-category  | N              | Treatment<br>Mean (SD) | N          | Control<br>Mean (SD) |     |          | D (fixed)<br>5% CI |   | Weight<br>% | WMD (fixed)<br>95% CI                        |
|--|----------------|------------------------|------------|----------------------|-----|----------|--------------------|---|-------------|--|
| 01 Weight maintenance<br>STORM 2000<br>Subtotal (95% CI)<br>Test for heterogeneity: not ap<br>Test for overall effect: Z = 6.3 |                | 2.80(6.00)             | 114<br>114 | 6.20(4.60)           |     | <b>‡</b> |                    |   | 100.00      | -3.40 [-4.45, -2.35]<br>-3.40 [-4.45, -2.35] |
| Test for overall effect. Z = 6.5.  | 3 (P < 0.00001 | )                      |            |                      | -10 | -5       | 0                  | 5 | 10          |  |

Sibutramine UPDATE adults only Review:

01 Sibutramine and diet vs placebo and diet (all studies) Comparison:

04 Failure to achieve at least 5% loss of initial body weight at 12 months

| Study<br>or sub-category   | Treatment n/N                 | Control<br>n/N       | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|-------------------------------|----------------------|----------------------|-------------|----------------------|
| 01 Weight loss   |                               |                      |                      |             |                      |
| Apfelbaum 1999   | 14/100                        | 45/100               | <del></del>          | 7.98        | 0.31 [0.18, 0.53]    |
| McMahon 2000   | 60/100                        | 91/100               | -                    | 16.13       | 0.66 [0.56, 0.78]    |
| NEW McMahon 2002   | 57/100                        | 92/100               | -                    | 16.31       | 0.62 [0.52, 0.74]    |
| NEW McNulty 2003a  | 54/100                        | 88/100               | -                    | 15.60       | 0.61 [0.51, 0.75]    |
| NEW McNulty 2003b  | 35/100                        | 88/100               | <del></del>          | 15.60       | 0.40 [0.30, 0.52]    |
| Smith 2001a  | 61/100                        | 80/100               | -                    | 14.18       | 0.76 [0.63, 0.92]    |
| Smith 2001b  | 43/100                        | 80/100               | -                    | 14.18       | 0.54 [0.42, 0.69]    |
| Subtotal (95% CI)  | 700                           | 700                  | <b>♦</b>             | 100.00      | 0.57 [0.53, 0.63]    |
| Total events: 324 (Treatment),<br>Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 12.8 | 24.78, df = 6 (P = 0.0004), I | <sup>2</sup> = 75.8% |                      |             |                      |
| 02 Weight maintenance  |                               |                      |                      |             |                      |
| STORM 2000   | 16/100                        | 45/100               | <del></del>          | 100.00      | 0.36 [0.22, 0.59]    |
| Subtotal (95% CI)  | 100                           | 100                  |                      | 100.00      | 0.36 [0.22, 0.59]    |
| Total events: 16 (Treatment),  | 45 (Control)                  |                      | -                    |             |                      |
|  | diameter.                     |                      |                      |             |                      |
| Test for heterogeneity: not app  | olicable                      |                      |                      |             |                      |

Favours treatment Favours control

Review: Sibutramine UPDATE adults only

Comparison: 01 Sibutramine and diet vs placebo and diet (all studies)

Outcome: 05 Failure to achieve at least 10% loss of initial body weight at 12 months

| Study or sub-category                        | Treatment n/N                  | Control<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|--------------------------------|----------------|----------------------|-------------|----------------------|
| 01 Weight loss                               |                                |                |                      |             |                      |
| Apfelbaum 1999                               | 46/100                         | 77/100         | -                    | 11.74       | 0.60 [0.47, 0.76]    |
| McMahon 2000                                 | 87/100                         | 96/100         | =                    | 14.63       | 0.91 [0.83, 0.99]    |
| NEW McMahon 2002                             | 87/100                         | 97/100         | =                    | 14.79       | 0.90 [0.83, 0.97]    |
| NEW McNulty 2003a                            | 86/100                         | 100/100        | -                    | 15.24       | 0.86 [0.79, 0.93]    |
| NEW McNulty 2003b                            | 73/100                         | 100/100        | -                    | 15.24       | 0.73 [0.65, 0.82]    |
| Smith 2001a                                  | 81/100                         | 93/100         | =                    | 14.18       | 0.87 [0.78, 0.97]    |
| Smith 2001b                                  | 66/100                         | 93/100         | -                    | 14.18       | 0.71 [0.61, 0.83]    |
| Subtotal (95% CI)                            | 700                            | 700            | ♦                    | 100.00      | 0.80 [0.77, 0.84]    |
| Total events: 526 (Treatment),               | 656 (Control)                  |                | •                    |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> = 3 | 30.81, df = 6 (P < $0.0001$ ), | $I^2 = 80.5\%$ |                      |             |                      |
| Test for overall effect: $Z = 9.57$          |                                |                |                      |             |                      |
| 02 Weight maintenance                        |                                |                |                      |             |                      |
| STORM 2000                                   | 45/100                         | 73/100         | <del>-</del>         | 100.00      | 0.62 [0.48, 0.79]    |
| Subtotal (95% CI)                            | 100                            | 100            | •                    | 100.00      | 0.62 [0.48, 0.79]    |
| Total events: 45 (Treatment), 7              | 73 (Control)                   |                |                      |             |                      |
| Test for heterogeneity: not app              | licable                        |                |                      |             |                      |
| Test for overall effect: $Z = 3.83$          |                                |                |                      |             |                      |
|  |                                | 0.1            | 0.2 0.5 1 2          | 5 10        |                      |
|  |                                | 0.1            | 0.2 0.3 1 2          | 5 10        |                      |

Sibutramine UPDATE adults only Review:

01 Sibutramine and diet vs placebo and diet (all studies) Comparison:

Outcome: 06 Failure to complete at 12 months

| Study or sub-category                        | Treatment n/N                      | Control<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|------------------------------------|----------------|----------------------|-------------|----------------------|
| 01 Weight loss                               |                                    |                |                      |             |                      |
| Apfelbaum 1999                               | 34/100                             | 42/100         | <del></del>          | 13.68       | 0.81 [0.57, 1.16]    |
| McMahon 2000                                 | 47/100                             | 45/100         | <del></del>          | 14.66       | 1.04 [0.77, 1.41]    |
| NEW Kaukua 2004                              | 8/100                              | 11/100         | <del></del>          | 3.58        | 0.73 [0.31, 1.73]    |
| NEW McMahon 2002                             | 43/100                             | 51/100         | <del>-= </del>       | 16.61       | 0.84 [0.63, 1.13]    |
| NEW McNulty 2003a                            | 28/100                             | 28/100         | <del></del>          | 9.12        | 1.00 [0.64, 1.56]    |
| NEW McNulty 2003b                            | 21/100                             | 28/100         | <del></del>          | 9.12        | 0.75 [0.46, 1.23]    |
| Smith 2001a                                  | 49/100                             | 51/100         | <del>_</del>         | 16.61       | 0.96 [0.73, 1.27]    |
| Smith 2001b                                  | 42/100                             | 51/100         | <del></del>          | 16.61       | 0.82 [0.61, 1.11]    |
| Subtotal (95% CI)                            | 800                                | 800            | •                    | 100.00      | 0.89 [0.78, 1.00]    |
| Total events: 272 (Treatment),               | 307 (Control)                      |                | Ĭ                    |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> = 2 | 2.98, $df = 7 (P = 0.89), I^2 = 0$ | 0%             |                      |             |                      |
| Test for overall effect: Z = 1.89            | ) (P = 0.06)                       |                |                      |             |                      |

Favours treatment Favours control

Favours treatment Favours control

Review:

Sibutramine UPDATE adults only 01 Sibutramine and diet vs placebo and diet (all studies) 07 Change in DBP (mmHg) at 6 months Comparison:

Outcome:

| Study or sub-category   | N        | Treatment<br>Mean (SD) | N        | Control<br>Mean (SD) |       |            | MD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI                  |
|---|----------|------------------------|----------|----------------------|-------|------------|----------------------|----------|--|
| 01 Weight reduction<br>Apfelbaum 1999<br>Subtotal (95% CI)    | 73<br>73 | 1.50(2.00)             | 68<br>68 | -1.90(2.20)          |       |            |                      | 100.00   | 3.40 [2.70, 4.10]<br>3.40 [2.70, 4.10] |
| Test for heterogeneity: not<br>Test for overall effect: Z = 9 |          | 1)                     |          |                      | ,     |            |                      | ,        |  |
|   |          |                        |          |                      | -10   | -5         | 0 5                  | 10       |  |
|   |          |                        |          |                      | Favou | rs treatme | nt Favours con       | trol     |  |

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Review: Comparison: Outcome: Sibutramine UPDATE adults only 01 Sibutramine and diet vs placebo and diet (all studies) 08 Change in total cholesterol in mmol/l at 12 months

| Study or sub-category              | N               | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|-----------------|--------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                |                 |                                |     |                      |                       |             |                       |
| McMahon 2000                       | 133             | -0.03(1.08)                    | 59  | -0.07(1.08)          | <del></del>           | 19.91       | 0.04 [-0.29, 0.37]    |
| NEW McMahon 2002                   | 129             | -0.09(1.08)                    | 63  | -0.06(1.08)          | <del></del>           | 20.62       | -0.03 [-0.36, 0.30]   |
| NEW McNulty 2003a                  | 68              | -0.10(1.08)                    | 32  | -0.20(1.08)          | <del></del>           | 10.60       | 0.10 [-0.35, 0.55]    |
| NEW McNulty 2003b                  | 62              | 0.00(1.08)                     | 32  | -0.20(1.08)          | <del>- + -</del>      | - 10.28     | 0.20 [-0.26, 0.66]    |
| Smith 2001a                        | 122             | 0.08(1.08)                     | 59  | 0.08(1.08)           | <del></del>           | 19.38       | 0.00 [-0.34, 0.34]    |
| Smith 2001b                        | 123             | 0.09(1.08)                     | 58  | 0.08(1.08)           | <del></del>           | 19.20       | 0.01 [-0.33, 0.35]    |
| Subtotal (95% CI)                  | 637             |                                | 303 |                      | •                     | 100.00      | 0.03 [-0.11, 0.18]    |
| Test for heterogeneity: Chi2 =     | 0.79, df = 5 (I | P = 0.98), I <sup>2</sup> = 0% |     |                      | ľ                     |             |                       |
| Test for overall effect: $Z = 0.4$ | 16 (P = 0.64)   |                                |     |                      |                       |             |                       |
| 02 Weight maintenance              |                 |                                |     |                      |                       |             |                       |
| STORM 2000                         | 265             | 0.12(1.08)                     | 77  | 0.26(1.08)           | <del></del>           | 100.00      | -0.14 [-0.41, 0.13]   |
| Subtotal (95% CI)                  | 265             |                                | 77  |                      |                       | 100.00      | -0.14 [-0.41, 0.13]   |
| Test for heterogeneity: not ap     | plicable        |                                |     |                      |                       |             |                       |
| Test for overall effect: $Z = 1.0$ | 00 (P = 0.32)   |                                |     |                      |                       |             |                       |
| Tool for overall effect. Z = 1.0   | 70 (1 = 0.32)   |                                |     | <u>-</u>             | 1 -0.5 0 0.5          | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours control Favours treatment

Review:

Sibutramine UPDATE adults only
01 Sibutramine and diet vs placebo and diet (all studies) Comparison: 09 Change in LDL cholesterol in mmol/l at 12 months Outcome:

| Study<br>or sub-category   | N               | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----------------|--------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction  |                 |                                |     |                      |                       |             |                       |
| Apfelbaum 1999   | 81              | 0.41(0.65)                     | 78  | 0.57(0.62)           | <del></del>           | 30.45       | -0.16 [-0.36, 0.04]   |
| McMahon 2000   | 131             | -0.09(0.74)                    | 58  | -0.11(0.74)          | <del></del>           | 22.68       | 0.02 [-0.21, 0.25]    |
| NEW McMahon 2002   | 122             | -0.11(0.74)                    | 60  | -0.10(0.74)          | <del></del>           | 22.69       | -0.01 [-0.24, 0.22]   |
| NEW McNulty 2003a  | 68              | -0.20(0.74)                    | 32  | -0.20(0.74)          | <del>+-</del>         | 12.28       | 0.00 [-0.31, 0.31]    |
| NEW McNulty 2003b  | 62              | -0.10(0.74)                    | 32  | -0.20(0.74)          | <del></del>           | 11.91       | 0.10 [-0.22, 0.42]    |
| Subtotal (95% CI)  | 464             |                                | 260 |                      | <b>*</b>              | 100.00      | -0.03 [-0.14, 0.07]   |
| Test for heterogeneity: Chi2 =                                       | 2.56, df = 4 (F | P = 0.63), I <sup>2</sup> = 0% |     |                      | ٦                     |             |                       |
| Test for overall effect: $Z = 0.6$                                   | 2 (P = 0.53)    |                                |     |                      |                       |             |                       |
| 02 Weight maintenance  |                 |                                |     |                      |                       |             |                       |
| STORM 2000   | 265             | -0.11(0.74)                    | 77  | 0.04(0.74)           | <del>-</del>          | 100.00      | -0.15 [-0.34, 0.04]   |
| Subtotal (95% CI)  | 265             |                                | 77  |                      |                       | 100.00      | -0.15 [-0.34, 0.04]   |
| Test for heterogeneity: not ap<br>Test for overall effect: $Z = 1.5$ |                 |                                |     |                      |                       |             |                       |

Sibutramine UPDATE adults only Review:

01 Sibutramine and diet vs placebo and diet (all studies)
10 Change in HDL cholesterol (mmol/l) at 12 months Comparison: Outcome:

| Study or sub-category   | N              | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----------------|------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |                |                        |     |                      |                       |             |                       |
| Apfelbaum 1999  | 81             | 0.34(0.23)             | 78  | 0.23(0.21)           | <del></del>           | 35.38       | 0.11 [0.04, 0.18]     |
| McMahon 2000  | 133            | 0.14(0.29)             | 59  | 0.06(0.29)           | <del> -</del> -       | 20.95       | 0.08 [-0.01, 0.17]    |
| NEW McMahon 2002  | 129            | 0.12(0.29)             | 63  | 0.03(0.29)           | <del></del>           | 21.70       | 0.09 [0.00, 0.18]     |
| NEW McNulty 2003a   | 68             | 0.10(0.29)             | 32  | 0.00(0.29)           | <del> </del>          | 11.15       | 0.10 [-0.02, 0.22]    |
| NEW McNulty 2003b   | 62             | 0.10(0.29)             | 32  | 0.00(0.29)           | <del>  -</del>        | 10.82       | 0.10 [-0.02, 0.22]    |
| Subtotal (95% CI)   | 473            |                        | 264 |                      | ♦                     | 100.00      | 0.10 [0.06, 0.14]     |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: $Z = 4.6$ |                |                        |     |                      |                       |             |                       |
| 02 Weight maintenance   |                |                        |     |                      |                       |             |                       |
| STORM 2000  | 265            | 0.22(0.29)             | 77  | 0.09(0.29)           | l <del>=</del>        | 100.00      | 0.13 [0.06, 0.20]     |
| Subtotal (95% CI)   | 265            |                        | 77  |                      | ●                     | 100.00      | 0.13 [0.06, 0.20]     |
| Test for heterogeneity: not ap  | plicable       |                        |     |                      | •                     |             |                       |
| Test for overall effect: $Z = 3.4$  | 6 (P = 0.0005) | )                      |     |                      |                       |             |                       |

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Sibutramine UPDATE adults only

01 Sibutramine and diet vs placebo and diet (all studies)
11 Change in triglycerides mmol/l at 12 months Comparison: Outcome:

| Study or sub-category   | N         | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |             | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----------|------------------------|-----|----------------------|-------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |           |                        |     |                      |             |                       |             |                       |
| Apfelbaum 1999  | 81        | -0.05(0.42)            | 78  | 0.11(0.54)           |             | <del></del>           | 43.26       | -0.16 [-0.31, -0.01]  |
| McMahon 2000  | 133       | -0.19(0.96)            | 59  | -0.01(0.96)          | _           | <del></del>           | 11.35       | -0.18 [-0.47, 0.11]   |
| NEW McMahon 2002  | 129       | -0.31(0.96)            | 63  | -0.08(0.96)          | _           | <del></del>           | 11.75       | -0.23 [-0.52, 0.06]   |
| NEW McNulty 2003a   | 68        | -0.20(0.96)            | 32  | 0.10(0.96)           |             | -                     | 6.04        | -0.30 [-0.70, 0.10]   |
| NEW McNulty 2003b   | 62        | -0.20(0.96)            | 32  | 0.10(0.96)           |             | <del></del>           | 5.86        | -0.30 [-0.71, 0.11]   |
| Smith 2001a   | 122       | -0.26(0.96)            | 57  | -0.21(0.96)          |             | <del></del>           | 10.79       | -0.05 [-0.35, 0.25]   |
| Smith 2001b   | 123       | -0.44(0.96)            | 58  | -0.21(0.96)          | _           | <del></del>           | 10.95       | -0.23 [-0.53, 0.07]   |
| Subtotal (95% CI)   | 718       |                        | 379 |                      |             | •                     | 100.00      | -0.18 [-0.28, -0.08]  |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 3.6 |           |                        |     |                      |             |                       |             |                       |
| 02 Weight maintenance   |           |                        |     |                      |             |                       |             |                       |
| STORM 2000  | 265       | -0.01(0.96)            | 77  | 0.25(0.96)           | _           | <del></del>           | 100.00      | -0.26 [-0.50, -0.02]  |
| Subtotal (95% CI)   | 265       |                        | 77  |                      | -           |                       | 100.00      | -0.26 [-0.50, -0.02]  |
| Test for heterogeneity: not ag  | oplicable |                        |     |                      |             | _                     |             |                       |
| Test for overall effect: $Z = 2.0$  |           |                        |     |                      |             |                       |             |                       |
|   |           |                        |     |                      | -1 -0.5     | 0 0.5                 | 1           |                       |
|   |           |                        |     |                      | Favours tre | atment Favours cor    | ntrol       |                       |

Sibutramine UPDATE adults only

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01 Sibutramine and diet vs placebo and diet (all studies)
12 Change in HbA 1c % at 12 months Comparison: Outcome:

| r sub-category   | N            | Mean (SD)   | Treatment<br>Mean (SD) N |             |          | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|--------------|-------------|--------------------------|-------------|----------|-----------------------|-------------|-----------------------|
| 1 Weight reduction   |              |             |                          |             |          |                       |             |                       |
| NEW McNulty 2003a  | 68           | -0.56(2.20) | 32                       | -0.22(1.92) | <b>←</b> | <del></del>           | 47.33       | -0.34 [-1.19, 0.51]   |
| NEW McNulty 2003b  | 62           | -0.32(1.80) | 32                       | -0.22(1.92) |          | <del></del>           | 52.67       | -0.10 [-0.90, 0.70]   |
| Subtotal (95% CI)  | 130          |             | 64                       |             |          |                       | 100.00      | -0.21 [-0.80, 0.37]   |
| est for overall effect: Z = 0.73                                 | 2 (P = 0.47) |             |                          |             |          |                       |             |                       |
| 2 Weight maintenance   |              |             |                          |             |          |                       |             |                       |
| STORM 2000   | 265          | 0.16(0.71)  | 770                      | 0.23(0.71)  |          | <del>-</del>          | 100.00      | -0.07 [-0.17, 0.03]   |
| Subtotal (95% CI)  | 265          |             | 770                      |             |          | <b>→</b>              | 100.00      | -0.07 [-0.17, 0.03]   |
| est for heterogeneity: not ap<br>est for overall effect: Z = 1.3 |              |             |                          |             |          |                       |             |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: Sibutramine UPDATE adults only

01 Sibutramine and diet vs placebo and diet (all studies)
13 Change in fasting plasma glucose (mmol/l) at 12 months Comparison: Outcome:

| Study<br>or sub-category           | N               | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|-----------------|--------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                |                 |                                |     |                      |                       |             |                       |
| McMahon 2000                       | 133             | 0.23(1.35)                     | 59  | 0.31(1.35)           | <del></del>           | 25.23       | -0.08 [-0.49, 0.33]   |
| NEW McNulty 2003a                  | 68              | -0.30(1.35)                    | 32  | 0.20(1.35)           | <del></del>           | 13.43       | -0.50 [-1.07, 0.07]   |
| NEW McNulty 2003b                  | 62              | -0.10(1.35)                    | 32  | 0.20(1.35)           | <del></del>           | 13.03       | -0.30 [-0.88, 0.28]   |
| Smith 2001a                        | 122             | -0.21(1.35)                    | 57  | -0.16(1.35)          | <del></del>           | 23.98       | -0.05 [-0.47, 0.37]   |
| Smith 2001b                        | 123             | -0.19(1.35)                    | 58  | -0.16(1.35)          | <del></del>           | 24.33       | -0.03 [-0.45, 0.39]   |
| Subtotal (95% CI)                  | 508             |                                | 238 |                      |                       | 100.00      | -0.15 [-0.35, 0.06]   |
| Test for heterogeneity: Chi2 =     | 2.36, df = 4 (F | P = 0.67), I <sup>2</sup> = 0% |     |                      | ~                     |             |                       |
| Test for overall effect: $Z = 1.3$ | 7 (P = 0.17)    |                                |     |                      |                       |             |                       |
| 02 Weight maintenance              |                 |                                |     |                      |                       |             |                       |
| STORM 2000                         | 265             | 0.13(1.35)                     | 77  | 0.14(1.35)           | <del></del> _         | 100.00      | -0.01 [-0.35, 0.33]   |
| Subtotal (95% CI)                  | 265             |                                | 77  |                      |                       | 100.00      | -0.01 [-0.35, 0.33]   |
| Test for heterogeneity: not ap     | plicable        |                                |     |                      | T                     |             |                       |
| Test for overall effect: $Z = 0.0$ | 6 (P = 0.95)    |                                |     |                      |                       |             |                       |

Sibutramine UPDATE adults only

01 Sibutramine and diet vs placebo and diet (all studies)
14 Change in SBP (mmHg) at 12 months Comparison:

| tudy<br>· sub-category          | N                 | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---------------------------------|-------------------|--------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| Weight reduction                |                   |                                |     |                      |                       |             |                       |
| AcMahon 2000                    | 142               | 2.70(12.70)                    | 69  | 1.50(12.70)          | <del></del>           | 16.83       | 1.20 [-2.45, 4.85]    |
| IEW Kaukua 2004                 | 102               | 4.10(12.70)                    | 108 | 3.60(12.70)          | <del></del>           | 19.01       | 0.50 [-2.94, 3.94]    |
| IEW McMahon 2002                | 145               | 3.80(12.70)                    | 72  | 1.10(12.70)          | +                     | 17.43       | 2.70 [-0.89, 6.29]    |
| IEW McNulty 2003a               | 68                | 4.40(15.67)                    | 32  | -0.20(16.00)         | <del>-</del>          | 5.03        | 4.60 [-2.08, 11.28]   |
| IEW McNulty 2003b               | 62                | -1.50(15.75)                   | 32  | -0.20(16.00)         | <del></del>           | 4.87        | -1.30 [-8.09, 5.49]   |
| mith 2001a                      | 154               | 1.00(12.70)                    | 76  | -0.50(12.70)         |                       | 18.44       | 1.50 [-1.99, 4.99]    |
| mith 2001b                      | 149               | 0.30(12.70)                    | 77  | -0.50(12.70)         | <del></del>           | 18.39       | 0.80 [-2.69, 4.29]    |
| btotal (95% CI)                 | 822               |                                | 466 |                      | •                     | 100.00      | 1.36 [-0.14, 2.86]    |
| st for heterogeneity: Chi2 =    | 2.38, $df = 6$ (F | P = 0.88), I <sup>2</sup> = 0% |     |                      |                       |             |                       |
| est for overall effect: Z = 1.7 | 8 (P = 0.08)      |                                |     |                      |                       |             |                       |

Review: Sibutramine UPDATE adults only

Comparison: 01 Sibutramine and diet vs placebo and diet (all studies)

Outcome: 15 Change in DBP (mmHg) at 12 months

| Study or sub-category            | N               | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|-----------------|--------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction              |                 |                                |     |                      |                       |             |                       |
| McMahon 2000                     | 142             | 2.00(8.30)                     | 69  | -1.30(8.30)          | <del></del>           | 16.14       | 3.30 [0.91, 5.69]     |
| NEW Kaukua 2004                  | 102             | 1.70(8.30)                     | 108 | -0.20(8.30)          | <del>  _</del>        | 18.23       | 1.90 [-0.35, 4.15]    |
| NEW McMahon 2002                 | 145             | 3.00(8.30)                     | 72  | -0.10(8.30)          | <del></del>           | 16.72       | 3.10 [0.75, 5.45]     |
| NEW McNulty 2003a                | 68              | 3.30(9.07)                     | 32  | 0.50(8.80)           | +                     | 6.59        | 2.80 [-0.93, 6.53]    |
| NEW McNulty 2003b                | 62              | 0.40(7.87)                     | 32  | 0.50(8.80)           | <del></del>           | 7.00        | -0.10 [-3.72, 3.52]   |
| Smith 2001a                      | 154             | 1.60(8.30)                     | 76  | -0.90(8.30)          | <del></del>           | 17.68       | 2.50 [0.22, 4.78]     |
| Smith 2001b                      | 149             | -0.10(8.30)                    | 77  | -0.90(8.30)          | <del>-   -</del>      | 17.64       | 0.80 [-1.48, 3.08]    |
| Subtotal (95% CI)                | 822             |                                | 466 |                      | ◆                     | 100.00      | 2.16 [1.20, 3.12]     |
| Test for heterogeneity: Chi2 =   | 4.60, df = 6 (l | P = 0.60), I <sup>2</sup> = 0% |     |                      |                       |             |                       |
| Test for overall effect: Z = 4.4 | 11 (P < 0.0001  | )                              |     |                      |                       |             |                       |
|                                  |                 |                                |     |                      | -10 -5 0 5            | 10          |                       |

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Review: Sibutramine UPDATE adults only

Comparison: 01 Sibutramine and diet vs placebo and diet (all studies)
Outcome: 16 Change in total cholesterol (mmol/l) at 18 months

| Study or sub-category  | N | Treatment<br>Mean (SD) | N        | Control<br>Mean (SD) |    | WMD (fix<br>95% C | ,   | Weight<br>% | WMD (fixed)<br>95% CI                      |
|--|---|------------------------|----------|----------------------|----|-------------------|-----|-------------|--|
| 01 Weight maintenance<br>STORM 2000<br>Subtotal (95% CI)<br>Test for heterogeneity: not ap<br>Test for overall effect: Z = 1.2 |   | 0.15(1.08)             | 62<br>62 | 0.34(1.08)           |    |                   |     | 100.00      | -0.19 [-0.49, 0.11]<br>-0.19 [-0.49, 0.11] |
|  |   |                        |          |                      | -1 | -0.5 0            | 0.5 | 1           |  |

Review: Sibutramine UPDATE adults only

Comparison: 01 Sibutramine and diet vs placebo and diet (all studies)
Outcome: 17 Change in LDL cholesterol (mmol/l) at 18 months

| Study or sub-category        | N               | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI |       | Weight % | WMD (fixed)<br>95% CI |
|------------------------------|-----------------|------------------------|----|----------------------|----|-----------------------|-------|----------|-----------------------|
| 01 Weight maintenance        |                 |                        |    |                      |    |                       |       |          |                       |
| STORM 2000                   | 222             | -0.06(0.74)            | 62 | 0.10(0.74)           |    | -                     |       | 100.00   | -0.16 [-0.37, 0.05]   |
| Subtotal (95% CI)            | 222             |                        | 62 |                      |    |                       |       | 100.00   | -0.16 [-0.37, 0.05]   |
| Test for heterogeneity: not  | applicable      |                        |    |                      |    | <u> </u>              |       |          |                       |
| Test for overall effect: Z = | 1.51 (P = 0.13) |                        |    |                      |    |                       |       |          |                       |
|                              |                 |                        |    |                      | -1 | -0.5 0                | 0.5 1 |          |                       |

Review: Sibutramine UPDATE adults only

Comparison: 01 Sibutramine and diet vs placebo and diet (all studies) Outcome: 18 Change in HDL cholesterol (mmol/l) at 18 months

WMD (fixed) 95% CI WMD (fixed) 95% CI Treatment Control Weight Mean (SD) Ν Mean (SD) or sub-category Ν 01 Weight maintenance STORM 2000 0.24(0.29) 0.11(0.29) 100.00 0.13 [0.05, 0.21] 0.13 [0.05, 0.21] Subtotal (95% CI) 222 62 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 3.12 (P = 0.002) -0.5

Review: Sibutramine UPDATE adults only

Comparison: 01 Sibutramine and diet vs placebo and diet (all studies)
Outcome: 19 Change in triglycerides (mmol/l) at 18 months

| Study<br>or sub-category   | N | Treatment<br>Mean (SD) | N        | Control<br>Mean (SD) |    |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI                        |
|--|---|------------------------|----------|----------------------|----|------|-----------------|-------------|--|
| 01 Weight maintenance<br>STORM 2000<br>Subtotal (95% CI)<br>Test for heterogeneity: not ap<br>Test for overall effect: Z = 2.3 |   | -0.05(0.96)            | 62<br>62 | 0.28(0.96)           |    | *    |                 | 100.00      | -0.33 [-0.60, -0.06]<br>-0.33 [-0.60, -0.06] |
|  |   |                        |          |                      | -1 | -0.5 | 0 0.5           | 1           |  |

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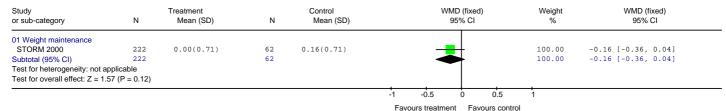
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Sibutramine UPDATE adults only

01 Sibutramine and diet vs placebo and diet (all studies) Comparison:

20 Change in HbA 1c% at 18 months Outcome:



Sibutramine UPDATE adults only

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01 Sibutramine and diet vs placebo and diet (all studies)
21 Change in fasting plasma glucose (mmol/l) at 18 months Comparison: Outcome:

WMD (fixed) Weight WMD (fixed) Study Control Treatment or sub-category Ν Mean (SD) Ν Mean (SD) 95% CI 95% CI 01 Weight maintenance 100.00 -0.12 [-0.50, 0.26] -0.12 [-0.50, 0.26] STORM 2000 222 0.14(1.35) 62 0.26(1.35) Subtotal (95% CI) Test for heterogeneity: not applicable
Test for overall effect: Z = 0.62 (P = 0.54) -0.5 0 0.5

Favours treatment

Favours treatment Favours control

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Review: Comparison:

Sibutramine UPDATE adults only 02 Sibutramine and diet vs placebo and diet (otherwise healthy)

Outcome: 01 Weight change in kg at 12 months

| Study or sub-category  | N   | Sibutramine<br>Mean (SD) | N   | Placebo<br>Mean (SD) |     |    | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|--------------------------|-----|----------------------|-----|----|-----------------|-------------|-----------------------|
| 01 Weight reduction  |     |                          |     |                      |     |    |                 |             |                       |
| Apfelbaum 1999   | 81  | -5.20(7.50)              | 78  | 0.50(5.70)           | _   | _  |                 | 28.31       | -5.70 [-7.77, -3.63]  |
| Smith 2001a  | 154 | -4.40(7.16)              | 79  | -1.60(6.37)          |     |    |                 | 37.15       | -2.80 [-4.60, -1.00]  |
| Smith 2001b  | 153 | -6.41(7.73)              | 78  | -1.60(6.37)          |     | _  |                 | 34.53       | -4.81 [-6.68, -2.94]  |
| Subtotal (95% CI)  | 388 |                          | 235 |                      |     |    |                 | 100.00      | -4.32 [-5.41, -3.22]  |
| Test for heterogeneity: Chira Test for overall effect: Z = 7 |     |                          |     |                      |     |    |                 |             |                       |
|  |     |                          |     |                      | -10 | -5 | 0 5             | 10          |                       |

Sibutramine UPDATE adults only

Comparison: 02 Sibutramine and diet vs placebo and diet (otherwise healthy)

02 Weight change in kg at 15 months Outcome:

| Study or sub-category   | N        | Treatment<br>Mean (SD) | N        | Control<br>Mean (SD) |     |          | 0 (fixed)<br>5% CI |   | Weight<br>%      | WMD (fixed)<br>95% CI                        |
|---|----------|------------------------|----------|----------------------|-----|----------|--------------------|---|------------------|--|
| 01 Weight reduction Apfelbaum 1999 Subtotal (95% CI) Test for heterogeneity: not ap | 81<br>81 | -0.90(6.17)            | 78<br>78 | 2.80(6.71)           |     | <b>‡</b> |                    |   | 100.00<br>100.00 | -3.70 [-5.71, -1.69]<br>-3.70 [-5.71, -1.69] |
| Test for overall effect: Z = 3.6  |          |                        |          |                      | -10 | -5       | 0                  | 5 | 10               |  |

Review: Sibutramine UPDATE adults only

02 Sibutramine and diet vs placebo and diet (otherwise healthy)
03 Weight change in kg at 18 months Comparison:

| Study<br>or sub-category   | N | Treatment<br>Mean (SD) | N          | Control<br>Mean (SD) |       |              | ID (fixed)<br>5% CI |         | Weight % | WMD (fixed)<br>95% CI                        |
|--|---|------------------------|------------|----------------------|-------|--------------|---------------------|---------|----------|--|
| 01 Weight maintenance<br>STORM 2000<br>Subtotal (95% CI)<br>Test for heterogeneity: not a<br>Test for overall effect: Z = 6. |   | 2.80(6.00)             | 114<br>114 | 6.20(4.60)           |       | <b>‡</b>     |                     |         | 100.00   | -3.40 [-4.45, -2.35]<br>-3.40 [-4.45, -2.35] |
|  |   |                        |            |                      | -10   | -5           | 0                   | 5       | 10       |  |
|  |   |                        |            |                      | Favou | urs treatmer | t Favour            | s contr | ol       |  |

Review: Sibutramine UPDATE adults only

Comparison: 02 Sibutramine and diet vs placebo and diet (otherwise healthy) Outcome: 04 Failure to achieve at least 5% loss of initial body weight at 12 months

| Study or sub-category   | Treatment n/N                           | Control<br>n/N | RR (fixed)<br>95% CI         | Weight<br>% | RR (fixed)<br>95% CI |
|---|---|----------------|------------------------------|-------------|----------------------|
| 01 Weight loss  |   |                |                              |             |                      |
| Apfelbaum 1999  | 14/100                                  | 45/100         | <del></del>                  | 21.95       | 0.31 [0.18, 0.53]    |
| Smith 2001a   | 61/100                                  | 80/100         | -                            | 39.02       | 0.76 [0.63, 0.92]    |
| Smith 2001b   | 43/100                                  | 80/100         |                              | 39.02       | 0.54 [0.42, 0.69]    |
| Subtotal (95% CI)   | 300                                     | 300            | •                            | 100.00      | 0.58 [0.49, 0.67]    |
| Total events: 118 (Treatment  | ), 205 (Control)                        |                | Ť I                          |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 7.1  02 Weight maintenance  | , |                |                              |             |                      |
| STORM 2000  | 16/100                                  | 45/100         |                              | 100.00      | 0.36 [0.22, 0.59]    |
| Subtotal (95% CI)   | 100                                     | 100            |                              | 100.00      | 0.36 [0.22, 0.59]    |
| Total events: 16 (Treatment),<br>Test for heterogeneity: not ap<br>Test for overall effect: Z = 4.0 | plicable                                |                |                              |             |                      |
|   |   | 0              | .1 0.2 0.5 1 2               | 5 10        |                      |
|   |   |                | Favours treatment Favours co | ntrol       |                      |

Sibutramine UPDATE adults only

Comparison: 02 Sibutramine and diet vs placebo and diet (otherwise healthy) Outcome: 05 Failure to achieve at least 10% loss of initial body weight at 12 months

| Study<br>or sub-category   | Treatment<br>n/N  | Control<br>n/N      | RR (fixed)<br>95% CI | Weight<br>%      | RR (fixed)<br>95% CI                   |
|--|---|---------------------|----------------------|------------------|--|
| 01 Weight loss   |   |                     |                      |                  |  |
| Apfelbaum 1999   | 46/100  | 77/100              |                      | 29.28            | 0.60 [0.47, 0.76]                      |
| Smith 2001a  | 81/100  | 93/100              | =                    | 35.36            | 0.87 [0.78, 0.97]                      |
| Smith 2001b  | 66/100  | 93/100              | -                    | 35.36            | 0.71 [0.61, 0.83]                      |
| Subtotal (95% CI)  | 300   | 300                 | <b>♦</b>             | 100.00           | 0.73 [0.67, 0.80]                      |
| ,  | , ,   |                     |                      |                  |  |
| Total events: 193 (Treatmen Test for heterogeneity: $Chi^2 = 6.0$ Test for overall effect: $Z = 6.0$   | = 12.54, df = 2 (P = 0.002), l <sup>2</sup>   | e = 84.0%           |                      |                  |  |
| Fest for heterogeneity: $Chi^2 = Chi^2 = Chi^$ | = 12.54, df = 2 (P = 0.002), l <sup>2</sup>   | 2 = 84.0%           |                      |                  |  |
| Fest for heterogeneity: Chi <sup>2</sup> =<br>Fest for overall effect: Z = 6.0<br>D2 Weight maintenance  | = 12.54, df = 2 (P = 0.002), l <sup>2</sup>   | ? = 84.0%<br>73/100 | _                    | 100.00           | 0.62 [0.48, 0.79]                      |
| Fest for heterogeneity: Chi <sup>2</sup> = Fest for overall effect: Z = 6.0 Weight maintenance STORM 2000  | = 12.54, df = 2 (P = 0.002), l <sup>2</sup><br>60 (P < 0.00001)                                   |                     | <b>.</b>             | 100.00<br>100.00 | 0.62 [0.48, 0.79]<br>0.62 [0.48, 0.79] |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 6.02 Weight maintenance STORM 2000 Subtotal (95% CI)   | = 12.54, df = 2 (P = 0.002), I <sup>2</sup> 60 (P < 0.00001)  45/100 100                          | 73/100              | <b>‡</b>             |                  |  |
| Test for heterogeneity: Chi2 :   | = 12.54, df = 2 (P = 0.002), I <sup>2</sup> 60 (P < 0.00001)  45/100 100 , 73 (Control) pplicable | 73/100              | *                    |                  |  |

Favours treatment Favours control

Sibutramine UPDATE adults only

Comparison: 02 Sibutramine and diet vs placebo and diet (otherwise healthy)

Outcome: 06 Failure to complete at 12 months

| Study or sub-category              | Treatment n/N                              | Control<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|------------------------------------|--|----------------|----------------------|-------------|----------------------|
| 01 Weight loss                     |  |                |                      |             |                      |
| Apfelbaum 1999                     | 34/100                                     | 42/100         | <del></del>          | 29.17       | 0.81 [0.57, 1.16]    |
| Smith 2001a                        | 49/100                                     | 51/100         | <del>-</del>         | 35.42       | 0.96 [0.73, 1.27]    |
| Smith 2001b                        | 42/100                                     | 51/100         | <del></del>          | 35.42       | 0.82 [0.61, 1.11]    |
| Subtotal (95% CI)                  | 300  | 300            | •                    | 100.00      | 0.87 [0.73, 1.04]    |
| Total events: 125 (Treatmen        | t), 144 (Control)                          |                | 1                    |             |                      |
| Test for heterogeneity: Chi2:      | $= 0.78$ , df = 2 (P = 0.68), $I^2 = 0.68$ | 0%             |                      |             |                      |
| Test for overall effect: $Z = 1.5$ | 56 (P = 0.12)                              |                |                      |             |                      |
|                                    |  | +              | 1 02 05 1 2          | 5 10        |                      |

Favours treatment Favours control

Comparison:

Sibutramine UPDATE adults only 02 Sibutramine and diet vs placebo and diet (otherwise healthy) 07 Change in DBP (mmHg) at 6 months

| Study or sub-category   | N  | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |      | V          | VMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------------|----|----------------------|------|------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction<br>Apfelbaum 1999                         | 73 | 1.50(2.00)             | 68 | -1.90(2.20)          |      |            | _                     | 100.00      | 3.40 [2.70, 4.10]     |
| Subtotal (95% CI)   | 73 |                        | 68 |                      |      |            | -   - ●               | 100.00      | 3.40 [2.70, 4.10]     |
| Test for heterogeneity: not<br>Test for overall effect: Z = 9 |    | 1)                     |    |                      |      |            |                       |             |                       |
|   |    |                        |    |                      | -10  | -5         | 0 5                   | 10          |                       |
|   |    |                        |    |                      | Favo | urs treatm | ent Favours co        | ntrol       |                       |

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Sibutramine UPDATE adults only

O2 Sibutramine or DATE addits only
O2 Sibutramine and diet vs placebo and diet (otherwise healthy)
O8 Change in total cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study<br>or sub-category   | N             | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------------|--------------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction  |               |                                |     |                      |                       |             |                       |
| Smith 2001a  | 122           | 0.08(1.08)                     | 59  | 0.08(1.08)           | <del></del>           | 50.22       | 0.00 [-0.34, 0.34]    |
| Smith 2001b  | 123           | 0.09(1.08)                     | 58  | 0.08(1.08)           | <del></del>           | 49.78       | 0.01 [-0.33, 0.35]    |
| Subtotal (95% CI)  | 245           |                                | 117 |                      |                       | 100.00      | 0.00 [-0.23, 0.24]    |
| Test for heterogeneity: $Chi^2 = $<br>Test for overall effect: $Z = 0.0$ |               | 2 = 0.97), I <sup>2</sup> = 0% |     |                      |                       |             |                       |
| 02 Weight maintenance  |               |                                |     |                      |                       |             |                       |
| STORM 2000   | 265           | 0.12(1.08)                     | 77  | 0.26(1.08)           | <del></del>           | 100.00      | -0.14 [-0.41, 0.13]   |
| Subtotal (95% CI)  | 265           |                                | 77  |                      |                       | 100.00      | -0.14 [-0.41, 0.13]   |
| Test for heterogeneity: not ag   | pplicable     |                                |     |                      |                       |             |                       |
| Test for overall effect: Z = 1.0   | 00 (P = 0.32) |                                |     |                      |                       |             |                       |
|  |               |                                |     |                      | -1 -0.5 0 0.5         | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Sibutramine UPDATE adults only

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Comparison: Outcome: 02 Sibutramine and diet vs placebo and diet (otherwise healthy) 09 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category                | N         | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------------|-----------|------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                  |           |                        |    |                      |                       |             |                       |
| Apfelbaum 1999                       | 81        | 0.41(0.65)             | 78 | 0.57(0.62)           | <del>-</del> -        | 100.00      | -0.16 [-0.36, 0.04]   |
| Subtotal (95% CI)                    | 81        |                        | 78 |                      |                       | 100.00      | -0.16 [-0.36, 0.04]   |
| Test for heterogeneity: not applic   | able      |                        |    |                      |                       |             |                       |
| Test for overall effect: Z = 1.59 (F | P = 0.11) |                        |    |                      |                       |             |                       |
| 02 Weight maintenance                |           |                        |    |                      |                       |             |                       |
| STORM 2000                           | 265       | -0.11(0.74)            | 77 | 0.04(0.74)           | <del>-    </del>      | 100.00      | -0.15 [-0.34, 0.04]   |
| Subtotal (95% CI)                    | 265       |                        | 77 |                      | <b>→</b>              | 100.00      | -0.15 [-0.34, 0.04]   |
| Test for heterogeneity: not applic   | able      |                        |    |                      |                       |             |                       |
| Test for overall effect: Z = 1.57 (F | P = 0.12) |                        |    |                      |                       |             |                       |
| -                                    |           |                        |    |                      | -1 -0.5 0 0.5         | 1           |                       |

Sibutramine UPDATE adults only Review:

Comparison: 02 Sibutramine and diet vs placebo and diet (otherwise healthy) Outcome: 10 Change in HDL cholesterol (mmol/l) at 12 months

| Study<br>or sub-category  | N                | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|------------------|------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |                  |                        |    |                      |                       |             |                       |
| Apfelbaum 1999  | 81               | 0.34(0.23)             | 78 | 0.23(0.21)           | l <del>=</del>        | 100.00      | 0.11 [0.04, 0.18]     |
| Subtotal (95% CI)   | 81               |                        | 78 |                      | •                     | 100.00      | 0.11 [0.04, 0.18]     |
| Test for heterogeneity: not a<br>Test for overall effect: Z = 3 |                  |                        |    |                      |                       |             |                       |
| 02 Weight maintenance   |                  |                        |    |                      |                       |             |                       |
| STORM 2000  | 265              | 0.22(0.29)             | 77 | 0.09(0.29)           | =                     | 100.00      | 0.13 [0.06, 0.20]     |
| Subtotal (95% CI)   | 265              |                        | 77 |                      | ●                     | 100.00      | 0.13 [0.06, 0.20]     |
| Test for heterogeneity: not a                                   | applicable       |                        |    |                      | •                     |             |                       |
| 0 ,   | .46 (P = 0.0005) |                        |    |                      |                       |             |                       |

Favours control Favours treatment

Sibutramine UPDATE adults only

Comparison: 02 Sibutramine and diet vs placebo and diet (otherwise healthy)

| Study<br>or sub-category           | N               | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) | W               | /MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|-----------------|--------------------------------|-----|----------------------|-----------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                |                 |                                |     |                      |                 |                       |             |                       |
| Apfelbaum 1999                     | 81              | -0.05(0.42)                    | 78  | 0.11(0.54)           | _               |                       | 66.56       | -0.16 [-0.31, -0.01]  |
| Smith 2001a                        | 122             | -0.26(0.96)                    | 57  | -0.21(0.96)          | _               | <del></del>           | 16.60       | -0.05 [-0.35, 0.25]   |
| Smith 2001b                        | 123             | -0.44(0.96)                    | 58  | -0.21(0.96)          |                 | <del></del>           | 16.84       | -0.23 [-0.53, 0.07]   |
| Subtotal (95% CI)                  | 326             |                                | 193 |                      | •               |                       | 100.00      | -0.15 [-0.28, -0.03]  |
| Test for heterogeneity: Chi2 =     | 0.71, df = 2 (F | P = 0.70), I <sup>2</sup> = 0% |     |                      |                 | ~                     |             |                       |
| Test for overall effect: $Z = 2.4$ | 5 (P = 0.01)    |                                |     |                      |                 |                       |             |                       |
| 02 Weight maintenance              |                 |                                |     |                      |                 |                       |             |                       |
| STORM 2000                         | 265             | -0.01(0.96)                    | 77  | 0.25(0.96)           | <del></del>     | <del></del>           | 100.00      | -0.26 [-0.50, -0.02]  |
| Subtotal (95% CI)                  | 265             |                                | 77  |                      | •               |                       | 100.00      | -0.26 [-0.50, -0.02]  |
| Test for heterogeneity: not ap     | plicable        |                                |     |                      | _               |                       |             |                       |
| Test for overall effect: $Z = 2.0$ | 9 (P = 0.04)    |                                |     |                      |                 |                       |             |                       |
|                                    |                 |                                |     |                      | -1 -0.5         | 0 0.5                 | 1           |                       |
|                                    |                 |                                |     |                      | Favours treatme | ent Favours con       |             |                       |

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Sibutramine UPDATE adults only

02 Sibutramine and diet vs placebo and diet (otherwise healthy)
12 Change in HbA 1c % at 12 months Comparison:

Outcome:

| Study or sub-category               | N          | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |    | WMD (fi<br>95% ( |     | Weight<br>% | WMD (fixed)<br>95% CI |
|-------------------------------------|------------|------------------------|-----|----------------------|----|------------------|-----|-------------|-----------------------|
| 01 Weight maintenance<br>STORM 2000 | 265        | 0.16(0.71)             | 770 | 0.23(0.71)           |    |                  |     | 100.00      | -0.07 [-0.17, 0.03]   |
| Subtotal (95% CI)                   | 265        | 0.16(0.71)             | 770 | 0.23(0.71)           |    | <del>-</del>     |     | 100.00      | -0.07 [-0.17, 0.03]   |
| Test for heterogeneity: not app     |            |                        |     |                      |    |                  |     |             |                       |
| Test for overall effect: Z = 1.38   | (P = 0.17) |                        |     |                      |    |                  |     |             |                       |
|                                     |            |                        |     |                      | -1 | -0.5 0           | 0.5 | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Sibutramine UPDATE adults only

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Comparison: Outcome: 02 Sibutramine and diet vs placebo and diet (otherwise healthy)
13 Change in fasting plasma glucose (mmol/l) at 12 months

| Study or sub-category  | N        | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--|----------|--------------------------------|-----|----------------------|-----------------------|----------|-----------------------|
| 01 Weight reduction  |          |                                |     |                      |                       |          |                       |
| Smith 2001a  | 122      | -0.21(1.35)                    | 57  | -0.16(1.35)          | <del></del>           | 49.64    | -0.05 [-0.47, 0.37]   |
| Smith 2001b  | 123      | -0.19(1.35)                    | 58  | -0.16(1.35)          |                       | 50.36    | -0.03 [-0.45, 0.39]   |
| Subtotal (95% CI)  | 245      |                                | 115 |                      |                       | 100.00   | -0.04 [-0.34, 0.26]   |
| Test for heterogeneity: $Chi^2 =$<br>Test for overall effect: $Z = 0.20$ |          | P = 0.95), I <sup>2</sup> = 0% |     |                      |                       |          |                       |
| 02 Weight maintenance  |          |                                |     |                      |                       |          |                       |
| STORM 2000   | 265      | 0.13(1.35)                     | 77  | 0.14(1.35)           |                       | 100.00   | -0.01 [-0.35, 0.33]   |
| Subtotal (95% CI)  | 265      |                                | 77  |                      |                       | 100.00   | -0.01 [-0.35, 0.33]   |
| Test for heterogeneity: not ap   | plicable |                                |     |                      |                       |          |                       |
| Test for overall effect: $Z = 0.0$                                       |          |                                |     |                      |                       |          |                       |
|  |          |                                |     |                      | -1 -0.5 0 0.5         | 1        |                       |

Sibutramine UPDATE adults only

02 Sibutramine and diet vs placebo and diet (otherwise healthy) 14 Change in SBP (mmHg) at 12 months Comparison: Outcome:

| Study or sub-category  | N   | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) |       |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|--------------------------------|-----|----------------------|-------|-------------|----------------------|-------------|-----------------------|
| 01 Weight reduction  |     |                                |     |                      |       |             |                      |             |                       |
| Smith 2001a  | 154 | 1.00(12.70)                    | 76  | -0.50(12.70)         |       |             |                      | 50.06       | 1.50 [-1.99, 4.99]    |
| Smith 2001b  | 149 | 0.30(12.70)                    | 77  | -0.50(12.70)         |       | _           | <del>-</del>         | 49.94       | 0.80 [-2.69, 4.29]    |
| Subtotal (95% CI)  | 303 |                                | 153 |                      |       |             |                      | 100.00      | 1.15 [-1.32, 3.62]    |
| Test for heterogeneity: Chir<br>Test for overall effect: Z = 0 |     | P = 0.78), I <sup>2</sup> = 0% |     |                      |       |             |                      |             |                       |
|  |     |                                |     |                      | -10   | -5          | Ö                    | 5 10        |                       |
|  |     |                                |     |                      | Favor | urs treatme | ent Favours          | control     |                       |

Review:

Sibutramine UPDATE adults only 02 Sibutramine and diet vs placebo and diet (otherwise healthy) 15 Change in DBP (mmHg) at 12 months Comparison:

Outcome:

| Study or sub-category          | N                             | Treatment<br>Mean (SD)      | N   | Control<br>Mean (SD) |            | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-------------------------------|-----------------------------|-----|----------------------|------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction            |                               |                             |     |                      |            |                       |             |                       |
| Smith 2001a                    | 154                           | 1.60(8.30)                  | 76  | -0.90(8.30)          |            | _ <del></del>         | 50.06       | 2.50 [0.22, 4.78]     |
| Smith 2001b                    | 149                           | -0.10(8.30)                 | 77  | -0.90(8.30)          |            | <del></del>           | 49.94       | 0.80 [-1.48, 3.08]    |
| Subtotal (95% CI)              | 303                           |                             | 153 |                      |            |                       | 100.00      | 1.65 [0.04, 3.26]     |
| Test for heterogeneity: Chi    | <sup>2</sup> = 1.07, df = 1 ( | $P = 0.30$ ), $I^2 = 6.2\%$ |     |                      |            | •                     |             |                       |
| Test for overall effect: Z = 2 | 2.01 (P = 0.04)               | ,,                          |     |                      |            |                       |             |                       |
|                                |                               |                             |     |                      | -10 -      | 5 0 5                 | 10          |                       |
|                                |                               |                             |     |                      | Favours tr | reatment Favours co   | ontrol      |                       |

Sibutramine UPDATE adults only

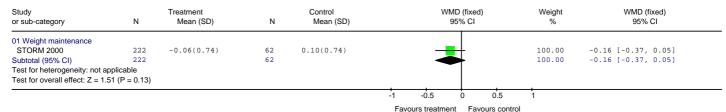
Comparison: Outcome: O2 Sibutramine and diet vs placebo and diet (otherwise healthy)
16 Change in total cholesterol (mmol/l) at 18 months

| Study<br>or sub-category          | N       | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |      |               | O (fixed)<br>5% CI                               | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|---------|------------------------|----|----------------------|------|---------------|--|-------------|-----------------------|
| 01 Weight maintenance             |         |                        |    |                      |      |               |  |             |                       |
| STORM 2000                        | 222     | 0.15(1.08)             | 62 | 0.34(1.08)           |      |               | +  | 100.00      | -0.19 [-0.49, 0.11]   |
| Subtotal (95% CI)                 | 222     |                        | 62 |                      |      |               | <b>-</b>   | 100.00      | -0.19 [-0.49, 0.11]   |
| Test for heterogeneity: not app   | licable |                        |    |                      |      | _             |  |             |                       |
| Test for overall effect: Z = 1.22 |         |                        |    |                      |      |               |  |             |                       |
|                                   |         |                        |    |                      |      | -             | <del>                                     </del> | <del></del> |                       |
|                                   |         |                        |    |                      | -1   | -0.5          | 0 0.5  | 1           |                       |
|                                   |         |                        |    |                      | Favo | ure treatment | Favoure conf                                     | trol        |                       |

Sibutramine UPDATE adults only

02 Sibutramine and diet vs placebo and diet (otherwise healthy) Comparison:

17 Change in LDL cholesterol (mmol/l) at 18 months



Sibutramine UPDATE adults only

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02 Sibutramine and diet vs placebo and diet (otherwise healthy)
18 Change in HDL cholesterol (mmol/l) at 18 months Comparison: Outcome:

Study Control Treatment or sub-category Ν Mean (SD) Ν Mean (SD)

WMD (fixed) Weight WMD (fixed) 95% CI 95% CI 01 Weight maintenance 100.00 0.13 [0.05, 0.21] 0.13 [0.05, 0.21] STORM 2000 222 0.24(0.29) 62 0.11(0.29) Subtotal (95% CI) 222 Test for heterogeneity: not applicable
Test for overall effect: Z = 3.12 (P = 0.002) -0.5 0 0.5 Favours control Favours treatment

Sibutramine UPDATE adults only 02 Sibutramine and diet vs placebo and diet (otherwise healthy) Comparison:

Outcome: 19 Change in triglycerides (mmol/l) at 18 months

| Study or sub-category  | N | Treatment<br>Mean (SD) | N        | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI                        |
|--|---|------------------------|----------|----------------------|-----------------------|-------------|--|
| 01 Weight maintenance<br>STORM 2000<br>Subtotal (95% CI)<br>Test for heterogeneity: not ap<br>Test for overall effect: Z = 2.3 |   | -0.05(0.96)            | 62<br>62 | 0.28(0.96)           | +                     | 100.00      | -0.33 [-0.60, -0.06]<br>-0.33 [-0.60, -0.06] |
|  |   |                        |          |                      | -1 -0.5 0 0.5         | <u> </u>    |  |

Favours treatment

Favours treatment Favours control

Favours treatment Favours control

Favours control

Review:

Sibutramine UPDATE adults only 02 Sibutramine and diet vs placebo and diet (otherwise healthy) Comparison:

Outcome: 20 Change in HbA 1c% at 18 months

| Study or sub-category  | N | Treatment<br>Mean (SD) | N        | Control<br>Mean (SD) |    | WMD (fi<br>95% ( |     | Weight<br>% | WMD (fixed)<br>95% CI                      |
|--|---|------------------------|----------|----------------------|----|------------------|-----|-------------|--|
| 01 Weight maintenance<br>STORM 2000<br>Subtotal (95% CI)<br>Test for heterogeneity: not app<br>Test for overall effect: Z = 1.57 |   | 0.00(0.71)             | 62<br>62 | 0.16(0.71)           | ,  | -                |     | 100.00      | -0.16 [-0.36, 0.04]<br>-0.16 [-0.36, 0.04] |
|  |   |                        |          |                      | -1 | -0.5 0           | 0.5 | 1           |  |

Review:

Sibutramine UPDATE adults only 02 Sibutramine and diet vs placebo and diet (otherwise healthy) Comparison: Outcome: 21 Change in fasting plasma glucose (mmol/l) at 18 months

| Study or sub-category   | N              | Treatment<br>Mean (SD) | N        | Control<br>Mean (SD) |    | WMD (<br>95% | ,   | Weight<br>% | WMD (fixed)<br>95% CI                      |
|---|----------------|------------------------|----------|----------------------|----|--------------|-----|-------------|--|
| 01 Weight maintenance<br>STORM 2000<br>Subtotal (95% CI)<br>Test for heterogeneity: not a<br>Test for overall effect: Z = 0 |                | 0.14(1.35)             | 62<br>62 | 0.26(1.35)           |    | -            | _   | 100.00      | -0.12 [-0.50, 0.26]<br>-0.12 [-0.50, 0.26] |
| - 105t 101 0vorall effect. Z = 0  | .02 (1 = 0.04) |                        |          |                      | -1 | -0.5 0       | 0.5 | 1           |  |

Sibutramine UPDATE adults only Review:

03 Sibutramine and diet vs placebo and diet (type 2 diabetes) Comparison:

Outcome: 01 Weight change in kg at 12 months

| Study or sub-category            | N                | Sibutramine<br>Mean (SD)          | N   | Placebo<br>Mean (SD) |             | WMD (fixed)<br>95% CI | 1           | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|------------------|-----------------------------------|-----|----------------------|-------------|-----------------------|-------------|-------------|-----------------------|
| 01 Weight reduction              |                  |                                   |     |                      |             |                       |             |             |                       |
| NEW Kaukua 2004                  | 102              | -7.10(7.92)                       | 108 | -2.60(6.65)          | _           | <del>-</del>          |             | 33.64       | -4.50 [-6.48, -2.52]  |
| NEW McNulty 2003a                | 68               | -5.50(4.95)                       | 32  | -0.20(4.00)          | <del></del> | <u></u>               |             | 40.06       | -5.30 [-7.12, -3.48]  |
| NEW McNulty 2003b                | 62               | -8.00(7.09)                       | 32  | -0.20(4.00)          | ←-          |                       |             | 26.29       | -7.80 [-10.04, -5.56] |
| Subtotal (95% CI)                | 232              |                                   | 172 |                      | •           | ▶                     |             | 100.00      | -5.69 [-6.84, -4.54]  |
| Test for heterogeneity: Chi2 =   | = 4.96, df = 2 ( | P = 0.08), I <sup>2</sup> = 59.6% |     |                      | •           |                       |             |             |                       |
| Test for overall effect: Z = 9.6 | 69 (P < 0.0000   | 11)                               |     |                      |             |                       |             |             |                       |
|                                  |                  |                                   |     |                      | -10         | -5 0                  | 5           | 10          |                       |
|                                  |                  |                                   |     |                      | Favours     | treatment Favo        | ours contro | İ           |                       |

Review: Sibutramine UPDATE adults only

Comparison: 03 Sibutramine and diet vs placebo and diet (type 2 diabetes)

Outcome: 02 Failure to achieve at least 5% loss of initial body weight at 12 months

| Study or sub-category                      | Treatment n/N                              | Control<br>n/N | RR (<br>95% | Weight<br>% | RR (fixed)<br>95% CI |                   |
|--|--|----------------|-------------|-------------|----------------------|-------------------|
| 01 Weight loss                             |  |                |             |             |                      |                   |
| NEW McNulty 2003a                          | 54/100                                     | 88/100         | -           |             | 50.00                | 0.61 [0.51, 0.75] |
| NEW McNulty 2003b                          | 35/100                                     | 88/100         | -           |             | 50.00                | 0.40 [0.30, 0.52] |
| Subtotal (95% CI)                          | 200  | 200            | •           |             | 100.00               | 0.51 [0.43, 0.60] |
| Total events: 89 (Treatment),              | 176 (Control)                              |                | •           |             |                      |                   |
| Test for heterogeneity: Chi <sup>2</sup> = | 6.68, df = 1 (P = 0.010), l <sup>2</sup> = | 85.0%          |             |             |                      |                   |
| Test for overall effect: $Z = 8.20$        | ) (P < 0.00001)                            |                |             |             |                      |                   |
|  |  |                | 0.1 0.2 0.5 | 1 2         | 5 10                 |                   |

Sibutramine UPDATE adults only Review:

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Comparison: 03 Sibutramine and diet vs placebo and diet (type 2 diabetes)

03 Failure to achieve at least 10% loss of initial body weight at 12 months Outcome:

| Study or sub-category                         | Treatment n/N                             | Control<br>n/N |     |     |     | RR (fixed)<br>95% CI |   | Weight<br>% | RR (fixed)<br>95% CI |                   |
|---|---|----------------|-----|-----|-----|----------------------|---|-------------|----------------------|-------------------|
| 01 Weight loss                                |   |                |     |     |     |                      |   |             |                      |                   |
| NEW McNulty 2003a                             | 86/100                                    | 100/100        |     |     |     |                      |   |             | 50.00                | 0.86 [0.79, 0.93] |
| NEW McNulty 2003b                             | 73/100                                    | 100/100        |     |     | -   |                      |   |             | 50.00                | 0.73 [0.65, 0.82] |
| Subtotal (95% CI)                             | 200                                       | 200            |     |     | 4   | ,                    |   |             | 100.00               | 0.80 [0.74, 0.85] |
| Total events: 159 (Treatment),                | 200 (Control)                             |                |     |     | •   |                      |   |             |                      |                   |
| Test for heterogeneity: Chi <sup>2</sup> = \$ | $5.76$ , $df = 1$ ( $P = 0.02$ ), $I^2 =$ | 82.6%          |     |     |     |                      |   |             |                      |                   |
| Test for overall effect: $Z = 6.39$           |   |                |     |     |     |                      |   |             |                      |                   |
|   | · ,                                       |                |     | -,- |     | +-                   | - |             | +.                   |                   |
|   |   |                | 0.1 | 0.2 | 0.5 | 1                    | 2 | 5           | 10                   |                   |

Favours treatment Favours control

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Sibutramine UPDATE adults only Review:

03 Sibutramine and diet vs placebo and diet (type 2 diabetes) Comparison:

Outcome: 04 Failure to complete at 12 months

| Study or sub-category                      | Treatment n/N                            | Control<br>n/N |     |     |     | fixed)<br>% CI |   | Weight<br>% | RR (fixed)<br>95% CI |
|--|--|----------------|-----|-----|-----|----------------|---|-------------|----------------------|
| 01 Weight loss                             |  |                |     |     |     |                |   |             |                      |
| NEW Kaukua 2004                            | 8/100                                    | 11/100         |     | -   | _   | _              |   | 16.42       | 0.73 [0.31, 1.73]    |
| NEW McNulty 2003a                          | 28/100                                   | 28/100         |     |     | _   | <u> </u>       |   | 41.79       | 1.00 [0.64, 1.56]    |
| NEW McNulty 2003b                          | 21/100                                   | 28/100         |     |     | _   | -              |   | 41.79       | 0.75 [0.46, 1.23]    |
| Subtotal (95% CI)                          | 300                                      | 300            |     |     | •   | <b>•</b>       |   | 100.00      | 0.85 [0.62, 1.16]    |
| Total events: 57 (Treatment), (            | 67 (Control)                             |                |     |     | •   |                |   |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> = | $0.88$ , df = 2 (P = $0.64$ ), $I^2 = 0$ | 0%             |     |     |     |                |   |             |                      |
| Test for overall effect: Z = 1.03          | 3 (P = 0.30)                             |                |     |     |     |                |   |             |                      |
| -  |  |                | 0.1 | 0.2 | 0.5 | 1 2            | 5 | 10          |                      |

Review:

Sibutramine UPDATE adults only 03 Sibutramine and diet vs placebo and diet (type 2 diabetes) Comparison:

Outcome: 05 Change in total cholesterol in mmol/l at 12 months

| Study or sub-category              | N                | Treatment<br>Mean (SD)         | N  | Control<br>Mean (SD) |      | WMD (fixed)<br>95% CI |                 | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|------------------|--------------------------------|----|----------------------|------|-----------------------|-----------------|-------------|-----------------------|
| 01 Weight reduction                |                  |                                |    |                      |      |                       |                 |             |                       |
| NEW McNulty 2003a                  | 68               | -0.10(1.08)                    | 32 | -0.20(1.08)          |      | _                     | <del></del>     | 50.76       | 0.10 [-0.35, 0.55]    |
| NEW McNulty 2003b                  | 62               | 0.00(1.08)                     | 32 | -0.20(1.08)          |      | _                     | <del></del>     | 49.24       | 0.20 [-0.26, 0.66]    |
| Subtotal (95% CI)                  | 130              |                                | 64 |                      |      |                       |                 | 100.00      | 0.15 [-0.17, 0.47]    |
| Test for heterogeneity: Chi2 =     | = 0.09, df = 1 ( | P = 0.76), I <sup>2</sup> = 0% |    |                      |      |                       | 1               |             |                       |
| Test for overall effect: $Z = 0.9$ | 90 (P = 0.37)    |                                |    |                      |      |                       |                 |             |                       |
|                                    |                  |                                |    |                      | -1   | -0.5                  | 0 0.5           | 1           |                       |
|                                    |                  |                                |    |                      | Favo | ours treatme          | ent Favours con | trol        |                       |

Sibutramine UPDATE adults only

03 Sibutramine and diet vs placebo and diet (type 2 diabetes)
06 Change in LDL cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study or sub-category            | N                 | Treatment<br>Mean (SD)         | N  | Control<br>Mean (SD) |      |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|-------------------|--------------------------------|----|----------------------|------|-------------|----------------------|-------------|-----------------------|
| 01 Weight reduction              |                   |                                |    |                      |      |             |                      |             |                       |
| NEW McNulty 2003a                | 68                | -0.20(0.74)                    | 32 | -0.20(0.74)          |      | _           | _ <del>_</del>       | 50.76       | 0.00 [-0.31, 0.31]    |
| NEW McNulty 2003b                | 62                | -0.10(0.74)                    | 32 | -0.20(0.74)          |      | -           | <del></del>          | 49.24       | 0.10 [-0.22, 0.42]    |
| Subtotal (95% CI)                | 130               |                                | 64 |                      |      |             |                      | 100.00      | 0.05 [-0.17, 0.27]    |
| Test for heterogeneity: Chi2 =   | = 0.20, df = 1 (I | P = 0.66), I <sup>2</sup> = 0% |    |                      |      |             |                      |             |                       |
| Test for overall effect: Z = 0.4 | 44 (P = 0.66)     |                                |    |                      |      |             |                      |             |                       |
|                                  |                   |                                |    |                      | -1   | -0.5        | 0 0.5                | 1           |                       |
|                                  |                   |                                |    |                      | Favo | urs treatme | ent Favours cont     | rol         |                       |

Sibutramine UPDATE adults only

03 Sibutramine and diet vs placebo and diet (type 2 diabetes) Comparison: 07 Change in HDL cholesterol (mmol/l) at 12 months

WMD (fixed) Weight WMD (fixed) Study Treatment Control or sub-category Ν Mean (SD) Ν Mean (SD) 01 Weight reduction NEW McNulty 2003a 0.10 [-0.02, 0.22] 0.10 [-0.02, 0.22] 0.10 [0.01, 0.19] 68 0.10(0.29) 32 0.00(0.29) 50.76 49.24 NEW McNulty 2003a NEW McNulty 2003b Subtotal (95% CI) 32 62 0.10(0.29) 0.00(0.29) 130 64 100.00 Test for heterogeneity: Chi² = 9.81E-32, df = 1 (P = 1.00),  $I^2$  = 0% Test for overall effect: Z = 2.26 (P = 0.02) -0.5 0.5

Favours control Favours treatment

Favours treatment Favours control

Favours treatment Favours control

Review:

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Sibutramine UPDATE adults only 03 Sibutramine and diet vs placebo and diet (type 2 diabetes) Comparison:

Outcome: 08 Change in triglycerides mmol/l at 12 months

| Study or sub-category   | N   | Treatment<br>Mean (SD)              | N  | Control<br>Mean (SD) |               | WMD (fixed)<br>95% CI |     | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|-------------------------------------|----|----------------------|---------------|-----------------------|-----|-------------|-----------------------|
| 01 Weight reduction   |     |                                     |    |                      |               |                       |     |             |                       |
| NEW McNulty 2003a   | 68  | -0.20(0.96)                         | 32 | 0.10(0.96)           |               | <del></del>           |     | 50.76       | -0.30 [-0.70, 0.10]   |
| NEW McNulty 2003b   | 62  | -0.20(0.96)                         | 32 | 0.10(0.96)           |               | <del></del>           |     | 49.24       | -0.30 [-0.71, 0.11]   |
| Subtotal (95% CI)   | 130 |                                     | 64 |                      |               |                       |     | 100.00      | -0.30 [-0.59, -0.01]  |
| Test for heterogeneity: $Chi^2 = $ Test for overall effect: $Z = 2.0$ |     | = 1 (P = 1.00), I <sup>2</sup> = 0% |    |                      |               |                       |     |             |                       |
|   |     |                                     |    |                      | <del>-1</del> | -0.5 0                | 0.5 | 1           |                       |

Sibutramine UPDATE adults only Review:

Comparison: Outcome: 03 Sibutramine and diet vs placebo and diet (type 2 diabetes) 09 Change in HbA 1c % at 12 months

| Study or sub-category                    | N                 | Treatment<br>Mean (SD)         | N  | Control<br>Mean (SD) |             | WMD (fixed)<br>95% CI |               | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|--------------------------------|----|----------------------|-------------|-----------------------|---------------|-------------|-----------------------|
| 01 Weight reduction                      |                   |                                |    |                      |             |                       |               |             |                       |
| NEW McNulty 2003a                        | 68                | -0.56(2.20)                    | 32 | -0.22(1.92)          | ←           |                       |               | 47.33       | -0.34 [-1.19, 0.51]   |
| NEW McNulty 2003b                        | 62                | -0.32(1.80)                    | 32 | -0.22(1.92)          | · · · · · · |                       |               | 52.67       | -0.10 [-0.90, 0.70]   |
| Subtotal (95% CI)                        | 130               |                                | 64 |                      | -           |                       | _             | 100.00      | -0.21 [-0.80, 0.37]   |
| Test for heterogeneity: Chi <sup>2</sup> | = 0.16, df = 1 (l | P = 0.69), I <sup>2</sup> = 0% |    |                      |             |                       |               |             |                       |
| Test for overall effect: $Z = 0$ .       | 72 (P = 0.47)     | ,                              |    |                      |             |                       |               |             |                       |
|  |                   |                                |    |                      | <u>-</u> 1  | -0.5 0                | 0.5           | 1           |                       |
|  |                   |                                |    |                      | Favou       | irs treatment Fa      | vours control |             |                       |

Sibutramine UPDATE adults only Review: Comparison:

03 Sibutramine and diet vs placebo and diet (type 2 diabetes) Outcome: 10 Change in fasting plasma glucose (mmol/l) at 12 months

| Study or sub-category            | N                 | Treatment<br>Mean (SD)         | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|-------------------|--------------------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| 01 Weight reduction              |                   |                                |    |                      |    |                       |             |                       |
| NEW McNulty 2003a                | 68                | -0.30(1.35)                    | 32 | 0.20(1.35)           | ←  | <del></del>           | 50.76       | -0.50 [-1.07, 0.07]   |
| NEW McNulty 2003b                | 62                | -0.10(1.35)                    | 32 | 0.20(1.35)           |    | -                     | 49.24       | -0.30 [-0.88, 0.28]   |
| Subtotal (95% CI)                | 130               |                                | 64 |                      | -  |                       | 100.00      | -0.40 [-0.81, 0.00]   |
| Test for heterogeneity: Chi2 =   | = 0.24, df = 1 (l | P = 0.63), I <sup>2</sup> = 0% |    |                      |    |                       |             |                       |
| Test for overall effect: Z = 1.9 | 95 (P = 0.05)     |                                |    |                      |    |                       |             |                       |
|                                  | . ,               |                                |    |                      | -1 | -0.5 0 0.             | .5 1        |                       |

Sibutramine UPDATE adults only

Comparison: Outcome: 03 Sibutramine and diet vs placebo and diet (type 2 diabetes) 11 Change in SBP (mmHg) at 12 months

| Study<br>or sub-category           | N                 | Treatment<br>Mean (SD)    | N   | Control<br>Mean (SD) |      | V          | VMD (fixed<br>95% CI | )          | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|-------------------|---------------------------|-----|----------------------|------|------------|----------------------|------------|-------------|-----------------------|
| 01 Weight reduction                |                   |                           |     |                      |      |            |                      |            |             |                       |
| NEW Kaukua 2004                    | 102               | 4.10(12.70)               | 108 | 3.60(12.70)          |      | -          |                      | _          | 65.75       | 0.50 [-2.94, 3.94]    |
| NEW McNulty 2003a                  | 68                | 4.40(15.67)               | 32  | -0.20(16.00)         |      |            | -                    | _          | 17.41       | 4.60 [-2.08, 11.28]   |
| NEW McNulty 2003b                  | 62                | -1.50(15.75)              | 32  | -0.20(16.00)         | _    |            | -                    |            | 16.84       | -1.30 [-8.09, 5.49]   |
| Subtotal (95% CI)                  | 232               |                           | 172 |                      |      |            |                      | -          | 100.00      | 0.91 [-1.88, 3.70]    |
| Test for heterogeneity: Chi2 =     | = 1.63, df = 2 (l | $P = 0.44$ ), $I^2 = 0\%$ |     |                      |      |            | 1                    |            |             |                       |
| Test for overall effect: $Z = 0.6$ | 64 (P = 0.52)     |                           |     |                      |      |            |                      |            |             |                       |
|                                    |                   |                           |     |                      | -10  | -5         | 0                    | 5          | 10          |                       |
|                                    |                   |                           |     |                      | Eavo | ure treatm | ont Eav              | oure contr | ol          |                       |

Sibutramine UPDATE adults only

03 Sibutramine and diet vs placebo and diet (type 2 diabetes) Comparison:

Outcome: 12 Change in DBP (mmHg) at 12 months

| Study or sub-category   | N   | Treatment<br>Mean (SD)    | N   | Control<br>Mean (SD) |     |    | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|---------------------------|-----|----------------------|-----|----|-----------------|-------------|-----------------------|
| 01 Weight reduction   |     |                           |     |                      |     |    |                 |             |                       |
| NEW Kaukua 2004   | 102 | 1.70(8.30)                | 108 | -0.20(8.30)          |     | -  | <del></del>     | 57.28       | 1.90 [-0.35, 4.15]    |
| NEW McNulty 2003a   | 68  | 3.30(9.07)                | 32  | 0.50(8.80)           |     | _  | -               | 20.72       | 2.80 [-0.93, 6.53]    |
| NEW McNulty 2003b   | 62  | 0.40(7.87)                | 32  | 0.50(8.80)           |     |    | <del></del>     | 22.00       | -0.10 [-3.72, 3.52]   |
| Subtotal (95% CI)   | 232 |                           | 172 |                      |     |    |                 | 100.00      | 1.65 [-0.05, 3.35]    |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 1.9 |     | $P = 0.52$ ), $I^2 = 0\%$ |     |                      |     |    |                 |             |                       |
|   |     |                           |     |                      | -10 | -5 | 0 5             | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Sibutramine UPDATE adults only

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04 Sibutramine and diet vs placebo and diet (hypertension)
01 Weight change in kg at 12 months Comparison: Outcome:

| Study or sub-category   | N   | Sibutramine<br>Mean (SD) | N   | Placebo<br>Mean (SD) |     |    | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|--------------------------|-----|----------------------|-----|----|-----------------|---|-------------|-----------------------|
| 01 Weight reduction   |     |                          |     |                      |     |    |                 |   |             |                       |
| McMahon 2000  | 142 | -4.40(7.16)              | 69  | -0.50(6.06)          |     | _  |                 |   | 49.10       | -3.90 [-5.75, -2.05]  |
| NEW McMahon 2002  | 145 | -4.50(7.19)              | 72  | -0.40(6.03)          |     | -  |                 |   | 50.90       | -4.10 [-5.92, -2.28]  |
| Subtotal (95% CI)   | 287 |                          | 141 |                      |     |    |                 |   | 100.00      | -4.00 [-5.30, -2.70]  |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 6.0 |     |                          |     |                      |     |    |                 |   |             |                       |
|   |     |                          |     |                      | -10 | -5 | 0               | 5 | 10          |                       |

Sibutramine UPDATE adults only Review:

04 Sibutramine and diet vs placebo and diet (hypertension) Comparison:

Outcome: 02 Failure to achieve at least 5% loss of initial body weight at 12 months

| Study or sub-category                        | Treatment n/N                      | Control<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|------------------------------------|----------------|----------------------|-------------|----------------------|
| 01 Weight loss                               |                                    |                |                      |             |                      |
| McMahon 2000                                 | 60/100                             | 91/100         |                      | 49.73       | 0.66 [0.56, 0.78]    |
| NEW McMahon 2002                             | 57/100                             | 92/100         | -                    | 50.27       | 0.62 [0.52, 0.74]    |
| Subtotal (95% CI)                            | 200                                | 200            | •                    | 100.00      | 0.64 [0.56, 0.72]    |
| Total events: 117 (Treatment),               | 183 (Control)                      |                | · I                  |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> = 0 | 0.24, $df = 1 (P = 0.62), I^2 = 0$ | )%             |                      |             |                      |
| Test for overall effect: $Z = 7.06$          | S (P < 0.00001)                    |                |                      |             |                      |
|  | ·                                  |                | 1 02 05 1 2          | 5 10        |                      |

Favours treatment Favours control

Favours treatment Favours control

Review: Sibutramine UPDATE adults only

Comparison: 04 Sibutramine and diet vs placebo and diet (hypertension)

Outcome: 03 Failure to achieve at least 10% loss of initial body weight at 12 months

| Study or sub-category                      | Treatment n/N                      | Control<br>n/N |     |     |     | (fixed)<br>5% CI | ) |   | Weight<br>% | RR (fixed)<br>95% CI |
|--|------------------------------------|----------------|-----|-----|-----|------------------|---|---|-------------|----------------------|
| 01 Weight loss                             |                                    |                |     |     |     |                  |   |   |             |                      |
| McMahon 2000                               | 87/100                             | 96/100         |     |     |     |                  |   |   | 49.74       | 0.91 [0.83, 0.99]    |
| NEW McMahon 2002                           | 87/100                             | 97/100         |     |     |     |                  |   |   | 50.26       | 0.90 [0.83, 0.97]    |
| Subtotal (95% CI)                          | 200                                | 200            |     |     |     | <b>•</b>         |   |   | 100.00      | 0.90 [0.85, 0.96]    |
| Total events: 174 (Treatment),             | 193 (Control)                      |                |     |     |     | Ί                |   |   |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> = | 0.03, $df = 1 (P = 0.86), I^2 = 0$ | )%             |     |     |     |                  |   |   |             |                      |
| Test for overall effect: $Z = 3.40$        | (P = 0.0007)                       |                |     |     |     |                  |   |   |             |                      |
|  |                                    |                | 0.1 | 0.2 | 0.5 | 1                | 2 | 5 | 10          |                      |

Sibutramine UPDATE adults only Review:

Comparison: 04 Sibutramine and diet vs placebo and diet (hypertension)

Outcome: 04 Failure to complete at 12 months

| Study or sub-category                        | Treatment n/N                      | Control<br>n/N |         | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|--|------------------------------------|----------------|---------|----------------------|-------------|----------------------|
| 01 Weight loss                               |                                    |                |         |                      |             |                      |
| McMahon 2000                                 | 47/100                             | 45/100         |         | -                    | 46.88       | 1.04 [0.77, 1.41]    |
| NEW McMahon 2002                             | 43/100                             | 51/100         |         | <del></del>          | 53.13       | 0.84 [0.63, 1.13]    |
| Subtotal (95% CI)                            | 200                                | 200            |         | •                    | 100.00      | 0.94 [0.76, 1.16]    |
| Total events: 90 (Treatment), 9              | 96 (Control)                       |                |         | 1                    |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> = 0 | 0.99, df = 1 (P = 0.32), $I^2 = 0$ | 0%             |         |                      |             |                      |
| Test for overall effect: Z = 0.60            | ) (P = 0.55)                       |                |         |                      |             |                      |
|  |                                    |                | 0.1 0.2 | 0.5 1 2              | 5 10        |                      |
|  |                                    |                | Favours | treatment Favours    | control     |                      |

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Sibutramine UPDATE adults only

04 Sibutramine and diet vs placebo and diet (hypertension) Comparison: 05 Change in total cholesterol in mmol/l at 12 months Outcome:

| Study or sub-category            | N              | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) |    | WMD (fix<br>95% C |     | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|----------------|--------------------------------|-----|----------------------|----|-------------------|-----|-------------|-----------------------|
| 01 Weight reduction              |                |                                |     |                      |    |                   |     |             |                       |
| McMahon 2000                     | 133            | -0.03(1.08)                    | 59  | -0.07(1.08)          |    |                   |     | 49.12       | 0.04 [-0.29, 0.37]    |
| NEW McMahon 2002                 | 129            | -0.09(1.08)                    | 63  | -0.06(1.08)          |    | <del></del>       | _   | 50.88       | -0.03 [-0.36, 0.30]   |
| Subtotal (95% CI)                | 262            |                                | 122 |                      |    |                   | -   | 100.00      | 0.00 [-0.23, 0.24]    |
| Test for heterogeneity: Chi2 =   | 0.09, df = 1 ( | P = 0.77), I <sup>2</sup> = 0% |     |                      |    | Ī                 |     |             |                       |
| Test for overall effect: Z = 0.0 | 04 (P = 0.97)  |                                |     |                      |    |                   |     |             |                       |
|                                  |                |                                |     |                      | -1 | -0.5 0            | 0.5 | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

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Sibutramine UPDATE adults only Review:

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04 Sibutramine and diet vs placebo and diet (hypertension) 06 Change in LDL cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study or sub-category              | N              | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) |    |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|----------------|--------------------------------|-----|----------------------|----|------|-----------------|-------------|-----------------------|
| 01 Weight reduction                |                |                                |     |                      |    |      |                 |             |                       |
| McMahon 2000                       | 131            | -0.09(0.74)                    | 58  | -0.11(0.74)          |    |      | <u> </u>        | 49.99       | 0.02 [-0.21, 0.25]    |
| NEW McMahon 2002                   | 122            | -0.11(0.74)                    | 60  | -0.10(0.74)          |    | _    | <u> </u>        | 50.01       | -0.01 [-0.24, 0.22]   |
| Subtotal (95% CI)                  | 253            |                                | 118 |                      |    | •    |                 | 100.00      | 0.01 [-0.16, 0.17]    |
| Test for heterogeneity: Chi2 =     | 0.03, df = 1 ( | P = 0.86), I <sup>2</sup> = 0% |     |                      |    |      | Ī               |             |                       |
| Test for overall effect: $Z = 0.0$ | 06 (P = 0.95)  |                                |     |                      |    |      |                 |             |                       |
|                                    |                |                                |     |                      | -1 | -0.5 | 0 0.5           | 1           |                       |

Sibutramine UPDATE adults only Review:

04 Sibutramine and diet vs placebo and diet (hypertension) 07 Change in HDL cholesterol (mmol/l) at 12 months Comparison: Outcome:

| Study or sub-category            | N               | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) |                   | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|-----------------|--------------------------------|-----|----------------------|-------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction              |                 |                                |     |                      |                   |                       |             |                       |
| McMahon 2000                     | 133             | 0.14(0.29)                     | 59  | 0.06(0.29)           |                   | <del> </del> ■        | 49.12       | 0.08 [-0.01, 0.17]    |
| NEW McMahon 2002                 | 129             | 0.12(0.29)                     | 63  | 0.03(0.29)           |                   | -                     | 50.88       | 0.09 [0.00, 0.18]     |
| Subtotal (95% CI)                | 262             |                                | 122 |                      |                   | •                     | 100.00      | 0.09 [0.02, 0.15]     |
| Test for heterogeneity: Chi2 =   | 0.02, df = 1 (F | P = 0.88), I <sup>2</sup> = 0% |     |                      |                   | l*                    |             |                       |
| Test for overall effect: Z = 2.6 |                 | **                             |     |                      |                   |                       |             |                       |
|                                  | , ,             |                                |     |                      | <del>- 1, 2</del> |                       | <del></del> |                       |
|                                  |                 |                                |     |                      | -1 -0             | 5 0 0.5               | 1           |                       |

Sibutramine UPDATE adults only Review: Comparison:

04 Sibutramine and diet vs placebo and diet (hypertension) Outcome: 08 Change in triglycerides mmol/l at 12 months

| Study or sub-category            | N                 | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) |    |     | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|-------------------|--------------------------------|-----|----------------------|----|-----|-----------------|---|-------------|-----------------------|
| 01 Weight reduction              |                   |                                |     |                      |    |     |                 |   |             |                       |
| McMahon 2000                     | 133               | -0.19(0.96)                    | 59  | -0.01(0.96)          |    |     | L               |   | 49.12       | -0.18 [-0.47, 0.11]   |
| NEW McMahon 2002                 | 129               | -0.31(0.96)                    | 63  | -0.08(0.96)          |    |     | ┡               |   | 50.88       | -0.23 [-0.52, 0.06]   |
| Subtotal (95% CI)                | 262               |                                | 122 |                      |    |     | ļ               |   | 100.00      | -0.21 [-0.41, 0.00]   |
| Test for heterogeneity: Chi2 =   | 0.06, $df = 1$ (I | P = 0.81), I <sup>2</sup> = 0% |     |                      |    | _   |                 |   |             |                       |
| Test for overall effect: Z = 1.9 | 5 (P = 0.05)      |                                |     |                      |    |     |                 |   |             |                       |
|                                  |                   |                                |     |                      | '1 | 0.5 |                 | - | 1           |                       |

Sibutramine UPDATE adults only

Comparison: Outcome: 04 Sibutramine and diet vs placebo and diet (hypertension) 09 Change in fasting plasma glucose (mmol/l) at 12 months

| Study or sub-category          | N               | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |                | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|-----------------|------------------------|----|----------------------|----------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction            |                 |                        |    |                      |                |                       |             |                       |
| McMahon 2000                   | 133             | 0.23(1.35)             | 59 | 0.31(1.35)           |                | <del></del>           | 100.00      | -0.08 [-0.49, 0.33]   |
| Subtotal (95% CI)              | 133             |                        | 59 |                      |                |                       | 100.00      | -0.08 [-0.49, 0.33]   |
| Test for heterogeneity: not a  | applicable      |                        |    |                      |                |                       |             |                       |
| Test for overall effect: Z = 0 | 0.38 (P = 0.70) |                        |    |                      |                |                       |             |                       |
|                                |                 |                        |    |                      | <del>-</del> 1 | -0.5 0 0              | ).5 1       |                       |

Sibutramine UPDATE adults only

04 Sibutramine and diet vs placebo and diet (hypertension) 10 Change in SBP (mmHg) at 12 months Comparison: Outcome:

| Study or sub-category                      | N                 | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) |      | ٧          | VMD (fixed)<br>95% CI | )          | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-------------------|--------------------------------|-----|----------------------|------|------------|-----------------------|------------|-------------|-----------------------|
| 01 Weight reduction                        |                   |                                |     |                      |      |            |                       |            |             |                       |
| McMahon 2000                               | 142               | 2.70(12.70)                    | 69  | 1.50(12.70)          |      |            |                       |            | 49.11       | 1.20 [-2.45, 4.85]    |
| NEW McMahon 2002                           | 145               | 3.80(12.70)                    | 72  | 1.10(12.70)          |      |            | +                     |            | 50.89       | 2.70 [-0.89, 6.29]    |
| Subtotal (95% CI)                          | 287               |                                | 141 |                      |      |            |                       | <b>-</b>   | 100.00      | 1.96 [-0.60, 4.52]    |
| Test for heterogeneity: Chi <sup>2</sup> = | = 0.33, df = 1 (F | P = 0.57), I <sup>2</sup> = 0% |     |                      |      |            | _                     |            |             |                       |
| Test for overall effect: $Z = 1.5$         |                   | ,,                             |     |                      |      |            |                       |            |             |                       |
|  |                   |                                |     |                      | -10  | -5         | 0                     | 5          | 10          |                       |
|  |                   |                                |     |                      | Favo | urs treatm | ent Favo              | ours contr | rol         |                       |

Sibutramine UPDATE adults only

04 Sibutramine and diet vs placebo and diet (hypertension) Comparison:

Outcome: 11 Change in DBP (mmHg) at 12 months

| Study or sub-category   | N   | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |     |    | 0 (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|-----|------------------------|-----|----------------------|-----|----|--------------------|-------------|-----------------------|
| 01 Weight reduction   |     |                        |     |                      |     |    |                    |             |                       |
| McMahon 2000  | 142 | 2.00(8.30)             | 69  | -1.30(8.30)          |     |    |                    | 49.11       | 3.30 [0.91, 5.69]     |
| NEW McMahon 2002  | 145 | 3.00(8.30)             | 72  | -0.10(8.30)          |     |    |                    | 50.89       | 3.10 [0.75, 5.45]     |
| Subtotal (95% CI)   | 287 |                        | 141 |                      |     |    |                    | 100.00      | 3.20 [1.53, 4.87]     |
| Test for heterogeneity: Chi <sup>2</sup> = Test for overall effect: Z = 3.7 |     |                        |     |                      |     |    |                    |             |                       |
|   |     |                        |     |                      | -10 | -5 | 0 5                | 10          |                       |

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Sibutramine UPDATE adults only Review:

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05 Sibutramine+D and PA, vs placebo+D and PA 01 Weight change in kg at 12 months Comparison:

Outcome:

| Study or sub-category  | N  | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |     |    | O (fixed)<br>5% CI | Weight % | WMD (fixed)<br>95% CI |
|--|----|------------------------|----|----------------------|-----|----|--------------------|----------|-----------------------|
| NEW Sanchez-Reyes 20   | 44 | -4.10(7.08)            | 42 | -1.40(6.31)          |     | -  | +                  | 100.00   | -2.70 [-5.53, 0.13]   |
| Total (95% CI) Test for heterogeneity: not app Test for overall effect: Z = 1.87 |    |                        | 42 |                      |     | •  |                    | 100.00   | -2.70 [-5.53, 0.13]   |
|  |    |                        |    |                      | -10 | -5 | 0 5                | 10       |                       |

Sibutramine UPDATE adults only Review:

Comparison:

05 Sibutramine+D and PA, vs placebo+D and PA 02 Failure to achieve at least 5% loss of initial body weight at 12 months Outcome:

| Study or sub-category   | Treatment n/N | Control<br>n/N |     |     |          | t (fixed<br>5% CI | , |   | Weight<br>% | RR (fixed)<br>95% CI                   |
|---|---------------|----------------|-----|-----|----------|-------------------|---|---|-------------|--|
| 01 Weight loss<br>NEW Sanchez-Reyes 20<br>Subtotal (95% CI)<br>Total events: 41 (Treatment), 83 |               | 83/100<br>100  |     |     | <b>‡</b> |                   |   |   | 100.00      | 0.49 [0.38, 0.64]<br>0.49 [0.38, 0.64] |
| Test for heterogeneity: not applicate Test for overall effect: Z = 5.50 (                       |               |                | 0.1 | 0.2 | 0.5      | 1                 | 2 | 5 | 10          |  |

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Review: Sibutramine UPDATE adults only

Comparison:

05 Sibutramine+D and PA, vs placebo+D and PA 03 Failure to achieve at least 10% loss of initial body weight at 12 months Outcome:

| Study or sub-category  | Treatment n/N | Control<br>n/N |     |     |     | (fixed)<br>% CI |   |   | Weight<br>% | RR (fixed)<br>95% CI                   |
|--|---------------|----------------|-----|-----|-----|-----------------|---|---|-------------|--|
| 01 Weight loss<br>NEW Sanchez-Reyes 20<br>Subtotal (95% CI)<br>Total events: 75 (Treatment), 95<br>Test for heterogeneity: not applic<br>Test for overall effect: Z = 3.80 ( | cable         | 95/100<br>100  |     | •   | •   |                 |   |   | 100.00      | 0.79 [0.70, 0.89]<br>0.79 [0.70, 0.89] |
|  |               |                | 0.1 | ).2 | 0.5 | 1               | 2 | 5 | 10          |  |

Sibutramine UPDATE adults only Review:

Comparison: 05 Sibutramine+D and PA, vs placebo+D and PA

04 Failure to complete at 12 months

| Study<br>or sub-category              | Treatment n/N | Control<br>n/N | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|---------------------------------------|---------------|----------------|----------------------|-------------|----------------------|
| 01 Weight loss                        |               |                |                      |             |                      |
| NEW Sanchez-Reyes 20                  | 45/100        | 45/100         | -                    | 100.00      | 1.00 [0.74, 1.36]    |
| Subtotal (95% CI)                     | 100           | 100            | •                    | 100.00      | 1.00 [0.74, 1.36]    |
| Total events: 45 (Treatment), 45      | (Control)     |                | Ĭ                    |             |                      |
| est for heterogeneity: not applic     | cable         |                |                      |             |                      |
| Test for overall effect: $Z = 0.00$ ( | P = 1.00)     |                |                      |             |                      |

Sibutramine UPDATE adults only

05 Sibutramine+D and PA, vs placebo+D and PA Comparison:

05 Change in HbA 1c % at 6 months Outcome:

| Study<br>or sub-category          | N            | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|--------------|------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction               |              |                        |    |                      |                       |             |                       |
| NEW Sanchez-Reyes 20              | 44           | -0.60(0.76)            | 42 | 0.00(0.76)           | <del></del>           | 100.00      | -0.60 [-0.92, -0.28]  |
| Subtotal (95% CI)                 | 44           |                        | 42 |                      |                       | 100.00      | -0.60 [-0.92, -0.28]  |
| Test for heterogeneity: not app   | licable      |                        |    |                      |                       |             |                       |
| Test for overall effect: Z = 3.66 | (P = 0.0003) | )                      |    |                      |                       |             |                       |
| Total (95% CI)                    | 44           |                        | 42 |                      |                       | 100.00      | -0.60 [-0.92, -0.28]  |
| Test for heterogeneity: not app   | licable      |                        |    |                      | _                     |             |                       |
| Test for overall effect: Z = 3.66 | (P = 0.0003) | )                      |    |                      |                       |             |                       |
|                                   |              |                        |    |                      | -1 -0.5 0 0.5         | 1           |                       |

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Comparison: 05 Sibutramine+D and PA, vs placebo+D and PA

Outcome: 06 Change in total cholesterol in mmol/l at 12 months

| Study or sub-category             | N          | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fi<br>95% |        | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|------------------------|----|----------------------|----------------|--------|-----------------------|
| 01 Weight reduction               |            |                        |    |                      |                |        |                       |
| NEW Sanchez-Reyes 20              | 44         | -0.10(1.08)            | 42 | 0.30(1.08)           | <del></del>    | 100.00 | -0.40 [-0.86, 0.06]   |
| Subtotal (95% CI)                 | 44         |                        | 42 |                      |                | 100.00 | -0.40 [-0.86, 0.06]   |
| Test for heterogeneity: not appl  | licable    |                        |    |                      |                |        |                       |
| Test for overall effect: Z = 1.72 | (P = 0.09) |                        |    |                      |                |        |                       |
| Total (95% CI)                    | 44         |                        | 42 |                      |                | 100.00 | -0.40 [-0.86, 0.06]   |
| Test for heterogeneity: not appl  | licable    |                        |    |                      |                |        |                       |
| Test for overall effect: Z = 1.72 | (P = 0.09) |                        |    |                      |                |        |                       |
|                                   |            |                        |    |                      | -1 -0.5 0      | 0.5 1  |                       |

Review:

Sibutramine UPDATE adults only 05 Sibutramine+D and PA, vs placebo+D and PA 07 Change in LDL cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study or sub-category   | N  | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |    |                        |    |                      |                       |             |                       |
| NEW Sanchez-Reyes 20  | 44 | -0.07(0.74)            | 42 | 0.30(0.74)           | <del></del> -         | 100.00      | -0.37 [-0.68, -0.06]  |
| Subtotal (95% CI)   | 44 |                        | 42 |                      |                       | 100.00      | -0.37 [-0.68, -0.06]  |
| Test for heterogeneity: not appl<br>Test for overall effect: Z = 2.32             |    |                        |    |                      |                       |             |                       |
| Total (95% CI) Test for heterogeneity: not appl Test for overall effect: Z = 2.32 |    |                        | 42 |                      |                       | 100.00      | -0.37 [-0.68, -0.06]  |
| -   |    |                        |    |                      | -1 -0.5 0 0.5         | <del></del> |                       |

Sibutramine UPDATE adults only

05 Sibutramine+D and PA, vs placebo+D and PA Comparison:

Outcome: 08 Change in HDL cholesterol (mmol/l) at 12 months

| Study or sub-category   | N  | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |     |               | O (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------------|----|----------------------|-----|---------------|--------------------|-------------|-----------------------|
| 01 Weight reduction   |    |                        |    |                      |     |               |                    |             |                       |
| NEW Sanchez-Reyes 20  | 44 | 0.02(0.29)             | 42 | -0.03(0.29)          |     |               | -                  | 100.00      | 0.05 [-0.07, 0.17]    |
| Subtotal (95% CI)   | 44 |                        | 42 |                      |     |               | <u> </u>           | 100.00      | 0.05 [-0.07, 0.17]    |
| Test for heterogeneity: not applicate for overall effect: Z = 0.80 (                |    |                        |    |                      |     |               |                    |             |                       |
| Total (95% CI) Test for heterogeneity: not applicate for overall effect: Z = 0.80 ( |    |                        | 42 |                      |     |               | •                  | 100.00      | 0.05 [-0.07, 0.17]    |
|   |    |                        |    |                      | -1  | -0.5          | 0 0.5              | 1           |                       |
|   |    |                        |    |                      | Fav | vours control | Favours treat      | ment        |                       |

Sibutramine UPDATE adults only Review:

Comparison: Outcome: 05 Sibutramine+D and PA, vs placebo+D and PA 09 Change in triglycerides mmol/l at 12 months

Study Treatment Control WMD (fixed) Weight WMD (fixed) Mean (SD) 95% CI or sub-category Mean (SD) 95% CI 01 Weight reduction 0.01 [-0.40, 0.42] 0.01 [-0.40, 0.42] NEW Sanchez-Reyes 20 44 -0.19(0.96) 42 -0.20(0.96) 100.00 Subtotal (95% CI) 42 44 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.05 (P = 0.96) Total (95% CI) 42 100.00 0.01 [-0.40, 0.42] Test for heterogeneity: not applicable
Test for overall effect: Z = 0.05 (P = 0.96) -0.5 0.5

Sibutramine UPDATE adults only 05 Sibutramine+D and PA, vs placebo+D and PA 10 Change in fasting plasma glucose (mmol/l) at 12 months Comparison: Outcome:

| Study or sub-category             | N            | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|--------------|------------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| 01 Weight reduction               |              |                        |    |                      |    |                       |             |                       |
| NEW Sanchez-Reyes 20              | 44           | -1.46(1.98)            | 42 | -0.93(1.98)          | ←  |                       | 100.00      | -0.53 [-1.37, 0.31]   |
| Subtotal (95% CI)                 | 44           |                        | 42 |                      |    |                       | 100.00      | -0.53 [-1.37, 0.31]   |
| Test for heterogeneity: not app   | olicable     |                        |    |                      |    |                       |             |                       |
| Test for overall effect: Z = 1.24 | l (P = 0.21) |                        |    |                      |    |                       |             |                       |
| Total (95% CI)                    | 44           |                        | 42 |                      |    |                       | 100.00      | -0.53 [-1.37, 0.31]   |
| Test for heterogeneity: not app   | olicable     |                        |    |                      |    |                       |             |                       |
| Test for overall effect: Z = 1.24 | l (P = 0.21) |                        |    |                      |    |                       |             |                       |
|                                   |              |                        |    |                      | -1 | -0.5 0 0.5            | 1           |                       |

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Comparison: Outcome: 05 Sibutramine+D and PA, vs placebo+D and PA 11 Change in HbA 1c % at 12 months

| Study or sub-category             | N            | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |          | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|--------------|------------------------|----|----------------------|----------|-----------------------|-------------|-----------------------|
| 01 Weight reduction               |              |                        |    |                      |          |                       |             |                       |
| NEW Sanchez-Reyes 20              | 44           | -0.60(0.76)            | 42 | 0.10(0.76)           | <b>←</b> | _                     | 100.00      | -0.70 [-1.02, -0.38]  |
| Subtotal (95% CI)                 | 44           |                        | 42 |                      |          | -                     | 100.00      | -0.70 [-1.02, -0.38]  |
| Test for heterogeneity: not appli | cable        |                        |    |                      | _        |                       |             |                       |
| Test for overall effect: Z = 4.27 | (P < 0.0001) |                        |    |                      |          |                       |             |                       |
| Total (95% CI)                    | 44           |                        | 42 |                      |          | -                     | 100.00      | -0.70 [-1.02, -0.38]  |
| Test for heterogeneity: not appli | cable        |                        |    |                      | _        |                       |             |                       |
| Test for overall effect: Z = 4.27 | (P < 0.0001) |                        |    |                      |          |                       |             |                       |
|                                   |              |                        |    |                      | -1 -0.   | 5 0 0.5               | 1           |                       |

Review:

Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT 01 Weight change in kg at 6 months Comparison:

Outcome:

| Study or sub-category  | N | Treatment<br>Mean (SD) | N          | Control<br>Mean (SD) |     |          | MD (fixed)<br>95% CI |   | Weight<br>% | WMD (fixed)<br>95% CI                        |
|--|---|------------------------|------------|----------------------|-----|----------|----------------------|---|-------------|--|
| 01 Weight reduction<br>NEW Porter 2004<br>Subtotal (95% CI)<br>Test for heterogeneity: not a<br>Test for overall effect: Z = 7 |   | -6.80(5.50)            | 220<br>220 | -3.10(5.40)          |     | <b>‡</b> |                      |   | 100.00      | -3.70 [-4.66, -2.74]<br>-3.70 [-4.66, -2.74] |
|  |   |                        |            |                      | -10 | -5       | Ö                    | 5 | 10          |  |

Review:

Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT 02 Weight change in kg at 12 months Comparison:

Outcome:

| Study or sub-category  | N                 | Treatment<br>Mean (SD)         | N   | Control<br>Mean (SD) |     | WMD (fixed)<br>95% CI | Weight % | WMD (fixed)<br>95% CI |
|--|-------------------|--------------------------------|-----|----------------------|-----|-----------------------|----------|-----------------------|
| 01 Weight reduction  |                   |                                |     |                      |     |                       |          |                       |
| NEW Hauner 2004  | 174               | -8.10(7.74)                    | 174 | -5.10(6.73)          |     | <del></del>           | 40.42    | -3.00 [-4.52, -1.48]  |
| NEW Porter 2004  | 281               | -6.30(7.70)                    | 220 | -2.50(6.62)          |     | <del>-</del>          | 59.58    | -3.80 [-5.06, -2.54]  |
| Subtotal (95% CI)  | 455               |                                | 394 |                      |     |                       | 100.00   | -3.48 [-4.45, -2.51]  |
| Test for heterogeneity: Chi <sup>2</sup>   | = 0.63, df = 1 (I | P = 0.43), I <sup>2</sup> = 0% |     |                      |     | •                     |          |                       |
| Test for overall effect: Z = 7   | 03 (P < 0.0000    | 1)                             |     |                      |     |                       |          |                       |
| Total (95% CI) Test for heterogeneity: Chi <sup>2</sup> Test for overall effect: Z = 7 |                   | ,.                             | 394 |                      |     | •                     | 100.00   | -3.48 [-4.45, -2.51]  |
|  |                   |                                |     |                      | -10 | -5 0 5                | 10       |                       |

Sibutramine UPDATE adults only Review:

06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT Comparison:

Outcome: 03 Failure to achieve at least 5% loss of initial body weight at 12 months

| Study or sub-category                      | Treatment Control RR (fixed) gory n/N n/N 95% CI |        |     |          |         |      |        | Weight<br>% | RR (fixed)<br>95% CI |                   |
|--|--|--------|-----|----------|---------|------|--------|-------------|----------------------|-------------------|
| 01 Weight loss                             |  |        |     |          |         |      |        |             |                      |                   |
| NEW Hauner 2004                            | 37/100   | 59/100 |     |          | -       | -    |        |             | 42.14                | 0.63 [0.46, 0.85] |
| NEW Porter 2004                            | 53/100   | 81/100 |     |          | -       |      |        |             | 57.86                | 0.65 [0.53, 0.81] |
| Subtotal (95% CI)                          | 200  | 200    |     |          | •       |      |        |             | 100.00               | 0.64 [0.54, 0.77] |
| Total events: 90 (Treatment)               | , 140 (Control)                                  |        |     |          | •       |      |        |             |                      |                   |
| Test for heterogeneity: Chi <sup>2</sup> = | $= 0.05$ , df = 1 (P = 0.82), $I^2 = 0.05$       | )%     |     |          |         |      |        |             |                      |                   |
| Test for overall effect: $Z = 4.9$         | 95 (P < 0.00001)                                 |        |     |          |         |      |        |             |                      |                   |
|  |  |        | 0.1 | 0.2      | 0.5     | 1    | 2      | 5           | 10                   |                   |
|  |  |        | Fa  | vours ti | reatmen | · F: | avours | control     |                      |                   |

Review: Sibutramine UPDATE adults only

Comparison: 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT

Outcome: 04 Failure to achieve at least 10% loss of initial body weight at 12 months

| Study or sub-category              | Treatment n/N  | Control<br>n/N |         |     | (fixed)<br>5% CI |   | Weight<br>% | RR (fixed)<br>95% CI |
|------------------------------------|----------------|----------------|---------|-----|------------------|---|-------------|----------------------|
| 01 Weight loss                     |                |                |         |     |                  |   |             |                      |
| NEW Hauner 2004                    | 60/100         | 81/100         |         | -   | ļ                |   | 100.00      | 0.74 [0.61, 0.89]    |
| Subtotal (95% CI)                  | 100            | 100            |         | •   |                  |   | 100.00      | 0.74 [0.61, 0.89]    |
| Total events: 60 (Treatment)       | , 81 (Control) |                |         | •   |                  |   |             |                      |
| Test for heterogeneity: not a      | oplicable      |                |         |     |                  |   |             |                      |
| Test for overall effect: $Z = 3$ . | 16 (P = 0.002) |                |         |     |                  |   |             |                      |
|                                    |                |                | 0.1 0.2 | 0.5 | 1 2              | 5 | 10          |                      |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours control Favours treatment

Review: Sibutramine UPDATE adults only

Comparison: 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT

Outcome: 05 Failure to complete at 12 months

| Study or sub-category                      | Treatment n/N                       | Control<br>n/N |     |     |     | R (fixed<br>5% CI | , |   | Weight<br>% | RR (fixed)<br>95% CI |
|--|-------------------------------------|----------------|-----|-----|-----|-------------------|---|---|-------------|----------------------|
| 01 Weight loss                             |                                     |                |     |     |     |                   |   |   |             |                      |
| NEW Hauner 2004                            | 37/100                              | 44/100         |     |     | _   | -                 |   |   | 63.77       | 0.84 [0.60, 1.18]    |
| NEW Porter 2004                            | 5/100                               | 25/100         | ←   | -   |     |                   |   |   | 36.23       | 0.20 [0.08, 0.50]    |
| Subtotal (95% CI)                          | 200                                 | 200            |     |     |     | •                 |   |   | 100.00      | 0.61 [0.44, 0.84]    |
| Total events: 42 (Treatment),              | 69 (Control)                        |                |     |     | •   |                   |   |   |             |                      |
| Test for heterogeneity: Chi <sup>2</sup> = | 9.14, $df = 1$ (P = 0.003), $I^2 =$ | 89.1%          |     |     |     |                   |   |   |             |                      |
| Test for overall effect: Z = 3.0           | 7 (P = 0.002)                       |                |     |     |     |                   |   |   |             |                      |
|  |                                     |                | 0.1 | 0.2 | 0.5 | 1                 | 2 | 5 | 10          |                      |

2

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Review: Sibutramine UPDATE adults only

Comparison: 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT Outcome: 06 Change in total cholesterol in mmol/l at 6 months

| Study or sub-category  | N                       | Treatment<br>Mean (SD) | N          | Control<br>Mean (SD) |   |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI                      |
|--|-------------------------|------------------------|------------|----------------------|---|------|-----------------|-------------|--|
| 01 Weight reduction<br>NEW Porter 2004<br>Subtotal (95% CI)<br>Test for heterogeneity: not a | 281<br>281<br>oplicable | 0.01(1.08)             | 220<br>220 | 0.05(1.08)           |   | 4    | <b>-</b>        | 100.00      | -0.04 [-0.23, 0.15]<br>-0.04 [-0.23, 0.15] |
| Test for overall effect: Z = 0.4   | 41 (P = 0.68)           |                        |            |                      | + | -0.5 | 0 05            |             |  |

3

Review: Sibutramine UPDATE adults only

Comparison: 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT

Outcome: 07 Change in LDL cholesterol in mmol/l at 6 months

| Study or sub-category  | N          | Treatment<br>Mean (SD) | N          | Control<br>Mean (SD) |             |                     | MD (fixed)<br>95% CI | W     | eight<br>% | WMD (fixed)<br>95% CI                      |
|--|------------|------------------------|------------|----------------------|-------------|---------------------|----------------------|-------|------------|--|
| 01 Weight reduction<br>NEW Porter 2004<br>Subtotal (95% CI)          | 281<br>281 | 0.02(0.74)             | 220<br>220 | 0.07(0.74)           |             |                     | •                    |       | 0.00       | -0.05 [-0.18, 0.08]<br>-0.05 [-0.18, 0.08] |
| Test for heterogeneity: not app<br>Test for overall effect: Z = 0.75 |            |                        |            |                      |             |                     |                      |       |            |  |
|  |            |                        |            |                      | -1<br>Favou | -0.5<br>urs treatme |                      | 0.5 1 |            |  |

4

Review: Sibutramine UPDATE adults only

Comparison: 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT Outcome: 08 Change in HDL cholesterol (mmol/l) at 6 months

Study or sub-category WMD (fixed) WMD (fixed) 95% CI Treatment Control Weight Mean (SD) Mean (SD) 95% CI 01 Weight reduction NEW Porter 2004 0.01(0.29) 220 0.01(0.29) 100.00 0.00 [-0.05, 0.05] 0.00 [-0.05, 0.05] Subtotal (95% CI) 281 220 100.00 Test for heterogeneity: not applicable Test for overall effect: Z = 0.00 (P = 1.00) Total (95% CI) 220 100.00 0.00 [-0.05, 0.05] Test for heterogeneity: not applicable
Test for overall effect: Z = 0.00 (P = 1.00) -0.5 0.5 Ô

Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT Comparison:

Outcome: 09 Change in triglycerides mmol/l at 6 months

| Study or sub-category              | N             | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|---------------|------------------------|-----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction                |               |                        |     |                      |                       |             |                       |
| NEW Porter 2004                    | 281           | -0.15(0.96)            | 220 | -0.09(0.96)          | _ <del>_</del> _      | 100.00      | -0.06 [-0.23, 0.11]   |
| Subtotal (95% CI)                  | 281           |                        | 220 |                      | •                     | 100.00      | -0.06 [-0.23, 0.11]   |
| Test for heterogeneity: not a      | pplicable     |                        |     |                      | 7                     |             |                       |
| Test for overall effect: $Z = 0.6$ | 69 (P = 0.49) |                        |     |                      |                       |             |                       |
| Total (95% CI)                     | 281           |                        | 220 |                      | •                     | 100.00      | -0.06 [-0.23, 0.11]   |
| Test for heterogeneity: not a      | pplicable     |                        |     |                      | -1                    |             |                       |
| Test for overall effect: $Z = 0.6$ | 69 (P = 0.49) |                        |     |                      |                       |             |                       |
|                                    |               |                        |     |                      | 1 -0.5 0 0.5          | 1           |                       |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: Sibutramine UPDATE adults only

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06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT 10 Change in fasting plasma glucose (mmol/l) at 6 months Comparison: Outcome:

| Study or sub-category            | N            | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |         | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|--------------|------------------------|-----|----------------------|---------|-----------------------|-------------|-----------------------|
| 01 Weight reduction              |              |                        |     |                      |         |                       |             |                       |
| NEW Porter 2004                  | 281          | -0.04(1.98)            | 220 | -0.10(1.98)          |         |                       | 100.00      | 0.06 [-0.29, 0.41]    |
| Subtotal (95% CI)                | 281          |                        | 220 |                      |         |                       | 100.00      | 0.06 [-0.29, 0.41]    |
| Test for heterogeneity: not ap   | plicable     |                        |     |                      |         |                       |             |                       |
| Test for overall effect: Z = 0.3 | 4 (P = 0.74) |                        |     |                      |         |                       |             |                       |
| Total (95% CI)                   | 281          |                        | 220 |                      |         |                       | 100.00      | 0.06 [-0.29, 0.41]    |
| Test for heterogeneity: not ap   | plicable     |                        |     |                      |         |                       |             |                       |
| Test for overall effect: Z = 0.3 | 4 (P = 0.74) |                        |     |                      |         |                       |             |                       |
|                                  |              |                        |     |                      | -1 -0.5 | 0 0.5                 | 1           |                       |

Review:

Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT 11 Change in SBP (mmHg) at 6 months Comparison:

Outcome:

| Study or sub-category  | N          | Treatment<br>Mean (SD) | N          | Control<br>Mean (SD) |     |    | O (fixed)<br>i% CI |   | Weight<br>% | WMD (fixed)<br>95% CI                    |
|--|------------|------------------------|------------|----------------------|-----|----|--------------------|---|-------------|--|
| 01 Weight reduction<br>NEW Porter 2004<br>Subtotal (95% CI)          | 281<br>281 | -1.40(12.70)           | 220<br>220 | -2.10(12.70)         |     | -  |                    |   | 100.00      | 0.70 [-1.54, 2.94]<br>0.70 [-1.54, 2.94] |
| Test for heterogeneity: not app<br>Test for overall effect: Z = 0.61 |            |                        |            |                      |     |    |                    |   |             |  |
|  |            |                        |            |                      | -10 | -5 | 0                  | 5 | 10          |  |

Review:

Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT 12 Change in DBP (mmHg) at 6 months Comparison:

Outcome:

| Study or sub-category          | N              | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |     |    | MD (fixed)<br>95% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--------------------------------|----------------|------------------------|-----|----------------------|-----|----|----------------------|---|-------------|-----------------------|
| 01 Weight reduction            |                |                        |     |                      |     |    |                      |   |             |                       |
| NEW Porter 2004                | 281            | -0.90(8.30)            | 220 | -1.70(8.30)          |     |    | <del></del>          |   | 100.00      | 0.80 [-0.66, 2.26]    |
| Subtotal (95% CI)              | 281            |                        | 220 |                      |     |    |                      |   | 100.00      | 0.80 [-0.66, 2.26]    |
| Test for heterogeneity: not a  | applicable     |                        |     |                      |     |    | l"                   |   |             |                       |
| Test for overall effect: Z = 1 | .07 (P = 0.28) |                        |     |                      |     |    |                      |   |             |                       |
|                                |                |                        |     |                      | -10 | -5 | 0                    | 5 | 10          |                       |

Review:

Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT Comparison:

13 Change in total cholesterol in mmol/l at 12 months Outcome:

| Study or sub-category              | N             | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |         | WMD (fixed<br>95% CI | l)           | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|---------------|------------------------|-----|----------------------|---------|----------------------|--------------|-------------|-----------------------|
| 01 Weight reduction                |               |                        |     |                      |         |                      |              |             |                       |
| NEW Hauner 2004                    | 174           | -0.06(0.88)            | 174 | -0.04(0.98)          |         | _                    |              | 100.00      | -0.02 [-0.22, 0.18]   |
| Subtotal (95% CI)                  | 174           |                        | 174 |                      |         |                      |              | 100.00      | -0.02 [-0.22, 0.18]   |
| Test for heterogeneity: not ap     | plicable      |                        |     |                      |         | Ī                    |              |             |                       |
| Test for overall effect: $Z = 0.2$ | 20 (P = 0.84) |                        |     |                      |         |                      |              |             |                       |
|                                    |               |                        |     |                      | -1 -(   | 0.5 0                | 0.5          | 1           |                       |
|                                    |               |                        |     |                      | Favours | treatment Fav        | ours control |             |                       |

Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT Comparison: Outcome: 14 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category            | N              | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |         | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|----------------|------------------------|-----|----------------------|---------|-----------------------|-------------|-----------------------|
| 01 Weight reduction              |                |                        |     |                      |         |                       |             |                       |
| NEW Hauner 2004                  | 174            | -0.16(0.79)            | 174 | -0.22(1.10)          |         |                       | 100.00      | 0.06 [-0.14, 0.26]    |
| Subtotal (95% CI)                | 174            |                        | 174 |                      |         | •                     | 100.00      | 0.06 [-0.14, 0.26]    |
| Test for heterogeneity: not a    | applicable     |                        |     |                      |         | <u> </u>              |             |                       |
| Test for overall effect: $Z = 0$ | .58 (P = 0.56) |                        |     |                      |         |                       |             |                       |
|                                  |                |                        |     |                      | -1 -0.5 | 0 0.5                 | 1           |                       |

Favours treatment Favours control

Favours control Favours treatment

Favours treatment Favours control

Favours treatment Favours control

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Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT 15 Change in HDL cholesterol (mmol/l) at 12 months Comparison: Outcome:

| Study or sub-category            | N             | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |         | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|---------------|------------------------|-----|----------------------|---------|----------------------|-------------|-----------------------|
| 01 Weight reduction              |               |                        |     |                      |         |                      |             |                       |
| NEW Hauner 2004                  | 174           | 0.14(0.26)             | 174 | 0.10(0.29)           |         |                      | 100.00      | 0.04 [-0.02, 0.10]    |
| Subtotal (95% CI)                | 174           |                        | 174 |                      |         | <b>₩</b>             | 100.00      | 0.04 [-0.02, 0.10]    |
| Test for heterogeneity: not a    | pplicable     |                        |     |                      |         | ľ                    |             |                       |
| Test for overall effect: Z = 1.3 | 35 (P = 0.18) |                        |     |                      |         |                      |             |                       |
| Total (95% CI)                   | 174           |                        | 174 |                      |         | •                    | 100.00      | 0.04 [-0.02, 0.10]    |
| Test for heterogeneity: not a    | pplicable     |                        |     |                      |         |                      |             |                       |
| Test for overall effect: Z = 1.3 | 35 (P = 0.18) |                        |     |                      |         |                      |             |                       |
|                                  |               |                        |     |                      | -1 -0.5 | 0 0.5                | 1           |                       |

Sibutramine UPDATE adults only

06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT 16 Change in triglycerides mmol/l at 12 months Comparison: Outcome:

| Study or sub-category             | N          | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) | ١           | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|------------------------|-----|----------------------|-------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction               |            |                        |     |                      |             |                       |             |                       |
| NEW Hauner 2004                   | 174        | -0.11(0.79)            | 174 | 0.19(2.51)           | <del></del> | <del></del>           | 100.00      | -0.30 [-0.69, 0.09]   |
| Subtotal (95% CI)                 | 174        |                        | 174 |                      |             |                       | 100.00      | -0.30 [-0.69, 0.09]   |
| Test for heterogeneity: not app   | olicable   |                        |     |                      | _           |                       |             |                       |
| Test for overall effect: Z = 1.50 | (P = 0.13) |                        |     |                      |             |                       |             |                       |
| Total (95% CI)                    | 174        |                        | 174 |                      |             |                       | 100.00      | -0.30 [-0.69, 0.09]   |
| Test for heterogeneity: not app   | olicable   |                        |     |                      |             |                       |             |                       |
| Test for overall effect: Z = 1.50 | (P = 0.13) |                        |     |                      |             |                       |             |                       |
| -                                 |            |                        |     |                      | -1 -0.5     | 0 0.5                 | 1           |                       |

Review:

Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT 17 Change in SBP (mmHg) at 12 months Comparison:

Outcome:

| Study or sub-category             | N            | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |     | WMD (f<br>95% | , | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|--------------|------------------------|-----|----------------------|-----|---------------|---|-------------|-----------------------|
| 01 Weight reduction               |              |                        |     |                      |     |               |   |             |                       |
| NEW Hauner 2004                   | 174          | -2.90(14.70)           | 174 | -1.50(16.40)         |     | _             | _ | 100.00      | -1.40 [-4.67, 1.87]   |
| Subtotal (95% CI)                 | 174          |                        | 174 |                      |     |               | - | 100.00      | -1.40 [-4.67, 1.87]   |
| Test for heterogeneity: not app   | olicable     |                        |     |                      |     |               |   |             |                       |
| Test for overall effect: Z = 0.84 | 1 (P = 0.40) |                        |     |                      |     |               |   |             |                       |
| Total (95% CI)                    | 174          |                        | 174 |                      |     |               | - | 100.00      | -1.40 [-4.67, 1.87]   |
| Test for heterogeneity: not app   |              |                        |     |                      |     |               |   |             |                       |
| Test for overall effect: Z = 0.84 | P = 0.40     |                        |     |                      |     |               |   |             |                       |
|                                   |              |                        |     |                      | -10 | -5 0          | 5 | 10          |                       |

Review: Comparison:

Sibutramine UPDATE adults only 06 Sibutramine+D, PA, and BT vs placebo+D, PA, and BT 18 Change in DBP (mmHg) at 12 months

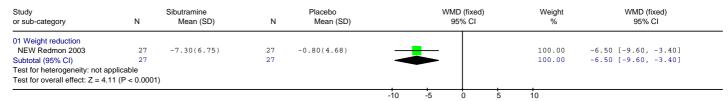
Outcome:

| Study<br>or sub-category   | N   | Treatment<br>Mean (SD) | N   | Control<br>Mean (SD) |       |             | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|-----|------------------------|-----|----------------------|-------|-------------|----------------------|-------------|-----------------------|
| 01 Weight reduction  |     |                        |     |                      |       |             |                      |             |                       |
| NEW Hauner 2004  | 174 | -0.30(10.50)           | 174 | -1.30(9.90)          |       |             | <del></del>          | 100.00      | 1.00 [-1.14, 3.14]    |
| Subtotal (95% CI)  | 174 |                        | 174 |                      |       |             |                      | 100.00      | 1.00 [-1.14, 3.14]    |
| Test for heterogeneity: not a<br>Test for overall effect: Z = 0.             |     |                        |     |                      |       |             |                      |             |                       |
| Total (95% CI) Fest for heterogeneity: not a Fest for overall effect: Z = 0. |     |                        | 174 |                      |       |             | •                    | 100.00      | 1.00 [-1.14, 3.14]    |
|  |     |                        |     |                      | -10   | -5          | 0 5                  | 10          |                       |
|  |     |                        |     |                      | Favou | rs treatmei | nt Favours cor       | ntrol       |                       |

Sibutramine UPDATE adults only

07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants Comparison:

01 Weight change in kg at 12 months



Favours treatment Favours control

Sibutramine UPDATE adults only

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Comparison: Outcome: 07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants

02 Weight change in kg at 24 months

| Study or sub-category  | N | Sibutramine<br>Mean (SD) | N        | Placebo<br>Mean (SD) | WMD (fixed)<br>95% CI |    |     | W    | /eight<br>% | WMD (fixed)<br>95% CI                    |
|--|---|--------------------------|----------|----------------------|-----------------------|----|-----|------|-------------|--|
| 01 Weight reduction NEW Redmon 2003 Subtotal (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 1.7: |   | -4.60(5.75)              | 25<br>25 | -8.10(8.00)          |                       |    | -   |      | 00.00       | 3.50 [-0.42, 7.42]<br>3.50 [-0.42, 7.42] |
|  |   |                          |          |                      | -10<br>Favor          | -5 | 0 5 | 5 10 |             |  |

Sibutramine UPDATE adults only

Comparison: 07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants

Outcome: 03 Failure to complete at 12 months

| Study or sub-category              | Treatment n/N | Control<br>n/N |         | RR (fixed)<br>95% CI | Weight<br>% | RR (fixed)<br>95% CI |
|------------------------------------|---------------|----------------|---------|----------------------|-------------|----------------------|
| 01 Weight loss                     |               |                |         |                      |             |                      |
| NEW Redmon 2003                    | 10/100        | 13/100         |         |                      | 100.00      | 0.77 [0.35, 1.67]    |
| Subtotal (95% CI)                  | 100           | 100            |         |                      | 100.00      | 0.77 [0.35, 1.67]    |
| Total events: 10 (Treatment),      | 13 (Control)  |                |         |                      |             |                      |
| Test for heterogeneity: not ap     | plicable      |                |         |                      |             |                      |
| Test for overall effect: $Z = 0.6$ | 66 (P = 0.51) |                |         |                      |             |                      |
|                                    |               |                | 0.1 0.2 | 0.5 1 2              | 5 10        |                      |

Favours treatment Favours control

Favours treatment Favours control

Favours treatment Favours control

Of Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants 04 Change in total cholesterol in mmol/l at 12 months Comparison: Outcome:

| Study or sub-category              | N             | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |    |      | (fixed)<br>% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|---------------|------------------------|----|----------------------|----|------|-----------------|-------------|-----------------------|
| 01 Weight reduction                |               |                        |    |                      |    |      |                 |             |                       |
| NEW Redmon 2003                    | 27            | -0.41(1.08)            | 27 | -0.44(1.08)          |    |      |                 | 100.00      | 0.03 [-0.55, 0.61]    |
| Subtotal (95% CI)                  | 27            |                        | 27 |                      |    |      |                 | 100.00      | 0.03 [-0.55, 0.61]    |
| Test for heterogeneity: not a      | pplicable     |                        |    |                      |    |      |                 |             |                       |
| Test for overall effect: $Z = 0$ . | 10 (P = 0.92) |                        |    |                      |    |      |                 |             |                       |
| -                                  |               |                        |    |                      | -1 | -0.5 | 0 0.5           | 1           |                       |

Sibutramine UPDATE adults only

07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants Comparison:

Outcome: 05 Change in LDL cholesterol in mmol/l at 12 months

| Study or sub-category              | N              | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|----------------|------------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| 01 Weight reduction                |                |                        |    |                      |    | L                     |             |                       |
| NEW Redmon 2003                    | 27             | -0.31(0.67)            | 27 | -0.33(0.78)          |    |                       | - 100.00    | 0.02 [-0.37, 0.41]    |
| Subtotal (95% CI)                  | 27             |                        | 27 |                      |    |                       | 100.00      | 0.02 [-0.37, 0.41]    |
| Test for heterogeneity: not a      | pplicable      |                        |    |                      |    |                       |             |                       |
| Test for overall effect: $Z = 0$ . | .10 (P = 0.92) |                        |    |                      |    |                       |             |                       |
|                                    |                |                        |    |                      | -1 | -0.5 0                | 0.5 1       |                       |

Sibutramine UPDATE adults only

Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants 06 Change in HDL cholesterol (mmol/l) at 12 months Comparison:

Outcome:

| Study or sub-category              | N             | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |        | O (fixed)<br>5% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|------------------------------------|---------------|------------------------|----|----------------------|--------|--------------------|-------------|-----------------------|
| 01 Weight reduction                |               |                        |    |                      |        |                    |             |                       |
| NEW Redmon 2003                    | 27            | 0.05(0.16)             | 27 | 0.02(0.16)           |        | <del>=</del>       | 100.00      | 0.03 [-0.06, 0.12]    |
| Subtotal (95% CI)                  | 27            |                        | 27 |                      |        | <b>◆</b>           | 100.00      | 0.03 [-0.06, 0.12]    |
| Test for heterogeneity: not a      | pplicable     |                        |    |                      |        |                    |             |                       |
| Test for overall effect: $Z = 0$ . | 69 (P = 0.49) |                        |    |                      |        |                    |             |                       |
| Total (95% CI)                     | 27            |                        | 27 |                      |        | •                  | 100.00      | 0.03 [-0.06, 0.12]    |
| Test for heterogeneity: not a      | pplicable     |                        |    |                      |        | ſ                  |             |                       |
| Test for overall effect: $Z = 0$ . | 69 (P = 0.49) |                        |    |                      |        |                    |             |                       |
|                                    |               |                        |    | -                    | 1 -0.5 | 0 0.5              | 1           |                       |

Favours control Favours treatment

Favours treatment Favours control

Review: Sibutramine UPDATE adults only

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Comparison: 07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants

Outcome: 07 Change in triglycerides mmol/l at 12 months

| Study or sub-category             | N            | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |          | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|--------------|------------------------|----|----------------------|----------|-----------------------|-------------|-----------------------|
| 01 Weight reduction               |              |                        |    |                      |          |                       |             |                       |
| NEW Redmon 2003                   | 27           | -0.52(1.40)            | 27 | 0.09(1.04)           | <b>←</b> |                       | 100.00      | -0.61 [-1.27, 0.05]   |
| Subtotal (95% CI)                 | 27           |                        | 27 |                      |          |                       | 100.00      | -0.61 [-1.27, 0.05]   |
| Test for heterogeneity: not app   | olicable     |                        |    |                      |          |                       |             |                       |
| Test for overall effect: Z = 1.82 | 2 (P = 0.07) |                        |    |                      |          |                       |             |                       |
| Total (95% CI)                    | 27           |                        | 27 |                      |          |                       | 100.00      | -0.61 [-1.27, 0.05]   |
| Test for heterogeneity: not app   | olicable     |                        |    |                      |          |                       |             |                       |
| Test for overall effect: Z = 1.82 |              |                        |    |                      |          |                       |             |                       |
| •                                 |              |                        |    |                      | -1 -     | 0.5 0 0.5             | 5 1         |                       |

Review:

Sibutramine UPDATE adults only 07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants Comparison:

Outcome: 08 Change in HbA 1c % at 12 months

| Study or sub-category             | N            | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|-----------------------------------|--------------|------------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| 01 Weight reduction               |              |                        |    |                      |    |                       |             |                       |
| NEW Redmon 2003                   | 27           | -0.60(1.55)            | 27 | 0.00(1.00)           | ←  | <del></del>           | 100.00      | -0.60 [-1.30, 0.10]   |
| Subtotal (95% CI)                 | 27           |                        | 27 |                      |    |                       | 100.00      | -0.60 [-1.30, 0.10]   |
| Test for heterogeneity: not app   | plicable     |                        |    |                      |    |                       |             |                       |
| Test for overall effect: Z = 1.69 | 9 (P = 0.09) |                        |    |                      |    |                       |             |                       |
| Total (95% CI)                    | 27           |                        | 27 |                      |    |                       | 100.00      | -0.60 [-1.30, 0.10]   |
| Test for heterogeneity: not app   | plicable     |                        |    |                      |    |                       |             |                       |
| Test for overall effect: Z = 1.69 | 9 (P = 0.09) |                        |    |                      |    |                       |             |                       |
|                                   |              |                        |    |                      | -1 | -0.5 0 0.5            | 1           |                       |

Sibutramine UPDATE adults only

07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants Comparison:

Outcome: 09 Change in fasting plasma glucose (mmol/l) at 12 months

| Study<br>or sub-category  | N  | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |    | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------------|----|----------------------|----|-----------------------|-------------|-----------------------|
| 01 Weight reduction   |    |                        |    |                      |    |                       |             |                       |
| NEW Redmon 2003   | 27 | -0.66(2.59)            | 27 | -0.61(2.59)          | ←  |                       | 100.00      | -0.05 [-1.43, 1.33]   |
| Subtotal (95% CI)   | 27 |                        | 27 |                      |    |                       | 100.00      | -0.05 [-1.43, 1.33]   |
| Γest for heterogeneity: not ap<br>Γest for overall effect: Z = 0.0            |    |                        |    |                      |    |                       |             |                       |
| otal (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 0.0 |    |                        | 27 |                      |    |                       | 100.00      | -0.05 [-1.43, 1.33]   |
|   |    |                        |    |                      | -1 | -0.5 0 0.5            | 1           |                       |

Sibutramine UPDATE adults only Review:

Comparison: Outcome: 07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants 10 Change in SBP (mmHg) at 12 months

| Study or sub-category             | N          | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |       |              | D (fixed)<br>5% CI |         | Weight % | WMD (fixed)<br>95% CI |
|-----------------------------------|------------|------------------------|----|----------------------|-------|--------------|--------------------|---------|----------|-----------------------|
| 01 Weight reduction               |            |                        |    |                      |       |              |                    |         |          |                       |
| NEW Redmon 2003                   | 27         | -6.00(15.59)           | 27 | -6.00(10.39)         | -     |              |                    |         | 100.00   | 0.00 [-7.07, 7.07]    |
| Subtotal (95% CI)                 | 27         |                        | 27 |                      | -     |              |                    |         | 100.00   | 0.00 [-7.07, 7.07]    |
| Test for heterogeneity: not app   | olicable   |                        |    |                      |       |              |                    |         |          |                       |
| Test for overall effect: Z = 0.00 | (P = 1.00) |                        |    |                      |       |              |                    |         |          |                       |
| Total (95% CI)                    | 27         |                        | 27 |                      | -     |              |                    |         | 100.00   | 0.00 [-7.07, 7.07]    |
| Test for heterogeneity: not app   | olicable   |                        |    |                      |       |              |                    |         |          |                       |
| Test for overall effect: Z = 0.00 |            |                        |    |                      |       |              |                    |         |          |                       |
|                                   |            |                        |    |                      | -10   | -5           | 0 5                | 5       | 10       |                       |
|                                   |            |                        |    |                      | Favou | rs treatment | Favours            | control |          |                       |

Review: Sibutramine UPDATE adults only

07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants Comparison:

Outcome: 11 Change in DBP (mmHg) at 12 months

| Study or sub-category  | N             | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |       | MD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|--|---------------|------------------------|----|----------------------|-------|----------------------|-------------|-----------------------|
| 01 Weight reduction  |               |                        |    |                      |       |                      |             |                       |
| NEW Redmon 2003  | 27            | -3.00(5.20)            | 27 | -6.00(10.39)         |       | <del></del>          | 100.00      | 3.00 [-1.38, 7.38]    |
| Subtotal (95% CI)  | 27            |                        | 27 |                      |       |                      | 100.00      | 3.00 [-1.38, 7.38]    |
| Test for heterogeneity: not a                                    | pplicable     |                        |    |                      |       |                      |             |                       |
| Test for overall effect: $Z = 1$ .                               | 34 (P = 0.18) |                        |    |                      |       |                      |             |                       |
| Total (95% CI)   | 27            |                        | 27 |                      |       |                      | 100.00      | 3.00 [-1.38, 7.38]    |
| Test for heterogeneity: not a Test for overall effect: $Z = 1$ . |               |                        |    |                      |       |                      |             |                       |
|  |               |                        |    |                      | 10 -5 | 0 5                  | 10          |                       |

Favours treatment Favours control

Favours treatment Favours control

Review: Sibutramine UPDATE adults only

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07 Sibutramine and lifestyle vs lifestyle alone THEN sibutramine and lifestyle for all participants 12 Change in HbA 1c % at 24 months Comparison:

Outcome:

| Study or sub-category            | N             | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) | WMD (fixed)<br>95% CI | Weight<br>% | WMD (fixed)<br>95% CI |
|----------------------------------|---------------|------------------------|----|----------------------|-----------------------|-------------|-----------------------|
| 01 Weight reduction              |               |                        |    |                      |                       |             |                       |
| NEW Redmon 2003                  | 23            | -0.50(1.44)            | 25 | -0.30(1.00)          | <del></del>           | 100.00      | -0.20 [-0.91, 0.51]   |
| Subtotal (95% CI)                | 23            |                        | 25 |                      |                       | 100.00      | -0.20 [-0.91, 0.51]   |
| Test for heterogeneity: not ag   | oplicable     |                        |    |                      |                       |             |                       |
| Test for overall effect: Z = 0.5 | 55 (P = 0.58) |                        |    |                      |                       |             |                       |
| Total (95% CI)                   | 23            |                        | 25 |                      |                       | 100.00      | -0.20 [-0.91, 0.51]   |
| Test for heterogeneity: not an   | oplicable     |                        |    |                      |                       |             |                       |
| Test for overall effect: Z = 0.5 | 55 (P = 0.58) |                        |    |                      |                       |             |                       |
|                                  |               |                        |    |                      | -1 -0.5 0 0.5         | 1           |                       |

Review:

Sibutramine UPDATE adults only 08 Sibutramine + LCD + exercise + behaviour therapy vs sibutramine + LCD + exercise Comparison:

Outcome: 01 Weight change in kg at 6 months

| Study or sub-category  | N        | Treatment<br>Mean (SD)       | N       | Control<br>Mean (SD)       |             | WMD (fix<br>95% C | , | Weight<br>%    | WMD (fixed)<br>95% CI                           |
|--|----------|------------------------------|---------|----------------------------|-------------|-------------------|---|----------------|---|
| Wadden 2001a<br>Wadden 2001b   | 17<br>17 | -11.40(7.10)<br>-17.90(5.80) | 9<br>10 | -5.60(5.00)<br>-5.60(5.00) | <b>—</b>    | -                 |   | 43.82<br>56.18 | -5.80 [-10.50, -1.10]<br>-12.30 [-16.45, -8.15] |
| Total (95% CI) Test for heterogeneity: Ch Test for overall effect: Z = |          |                              | 19      |                            | <b>&gt;</b> |                   |   | 100.00         | -9.45 [-12.56, -6.34]                           |
|  |          |                              |         |                            | -10         | -5 0              | 5 | 10             |   |

Sibutramine UPDATE adults only

OB Sibutramine + LCD + exercise + behaviour therapy vs sibutramine + LCD + exercise 02 Weight change in kg at 12 months Comparison:

Outcome:

| Study<br>or sub-category  | N        | Treatment<br>Mean (SD)        | N       | Control<br>Mean (SD)       |          | WMD (fix<br>95% ( |   | Weight<br>%    | WMD (fixed)<br>95% CI                           |
|---|----------|-------------------------------|---------|----------------------------|----------|-------------------|---|----------------|---|
| Wadden 2001a<br>Wadden 2001b  | 17<br>17 | -11.10(10.50)<br>-16.60(7.50) | 9<br>10 | -3.80(6.10)<br>-3.80(6.10) | <b>—</b> |                   |   | 39.83<br>60.17 | -7.30 [-13.69, -0.91]<br>-12.80 [-18.00, -7.60] |
| Total (95% CI) Test for heterogeneity: Chi Test for overall effect: Z = 5 |          |                               | 19      |                            |          |                   |   | 100.00         | -10.61 [-14.64, -6.58]                          |
|   |          |                               |         |                            | -10      | -5 0              | 5 | 10             |   |

Sibutramine UPDATE adults only

Comparison: 08 Sibutramine + LCD + exercise + behaviour therapy vs sibutramine + LCD + exercise

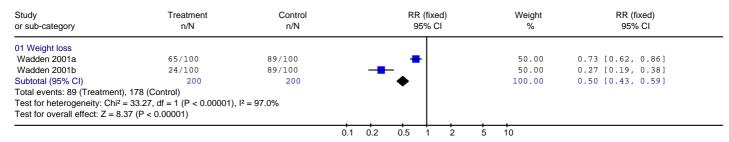
Outcome: 03 Failure to achieve at least 5% loss of initial body weight at 12 months

| Study or sub-category                    | Treatment n/N                       | Control<br>n/N | ( / |          |         |      | ,      | Weight<br>% | RR (fixed)<br>95% CI |                   |
|--|-------------------------------------|----------------|-----|----------|---------|------|--------|-------------|----------------------|-------------------|
| 01 Weight loss                           |                                     |                |     |          |         |      |        |             |                      |                   |
| Wadden 2001a                             | 47/100                              | 68/100         |     |          | -       | -    |        |             | 50.00                | 0.69 [0.54, 0.89] |
| Wadden 2001b                             | 12/100                              | 68/100         | _   | -        |         |      |        |             | 50.00                | 0.18 [0.10, 0.31] |
| Subtotal (95% CI)                        | 200                                 | 200            |     |          |         |      |        |             | 100.00               | 0.43 [0.34, 0.55] |
| Total events: 59 (Treatment              | t), 136 (Control)                   |                |     |          | •       |      |        |             |                      |                   |
| Test for heterogeneity: Chi <sup>2</sup> | = 23.94, df $= 1$ (P $< 0.00001$ ), | $I^2 = 95.8\%$ |     |          |         |      |        |             |                      |                   |
| Test for overall effect: $Z = 6$         | i.98 (P < 0.00001)                  |                |     |          |         |      |        |             |                      |                   |
|  |                                     |                | 0.1 | 0.2      | 0.5     | 1    | 2      | 5           | 10                   |                   |
|  |                                     |                | Fa  | avours t | reatmen | t Fa | avours | control     |                      |                   |

Review: Sibutramine UPDATE adults only

Comparison: 08 Sibutramine + LCD + exercise + behaviour therapy vs sibutramine + LCD + exercise

Outcome: 04 Failure to achieve at least 10% loss of initial body weight at 12 months



Favours treatment

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Favours control

Favours treatment Favours control

Favours treatment Favours control

Review: Sibutramine UPDATE adults only

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Comparison: 08 Sibutramine + LCD + exercise + behaviour therapy vs sibutramine + LCD + exercise

Outcome: 05 Failure to complete at 12 months

RR (fixed) RR (fixed) Study Treatment Control Weight or sub-category n/N n/N 95% CI 01 Weight loss Wadden 2001a 24/100 32/100 49.61 0.75 [0.48, 1.18] Wadden 2001b 0/100 32/100 50.39 0.02 [0.00, 0.25] Subtotal (95% CI) 200 200 100.00 0.38 [0.25, 0.58] Total events: 24 (Treatment), 64 (Control) Test for heterogeneity:  $Chi^2 = 13.86$ , df = 1 (P = 0.0002),  $I^2 = 92.8\%$ Test for overall effect: Z = 4.49 (P < 0.00001)10 0.1 0.2 0.5 5

Favours treatment

Review: Sibutramine UPDATE adults only

Comparison: 09 Sibutramine and diet vs placebo and diet (4 months) then open label sibutramine for all participants

Outcome: 01 Weight change in kg at 4 months

| Study or sub-category   | N  | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |     |          | D (fixed)<br>5% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|---|----|------------------------|----|----------------------|-----|----------|--------------------|---|-------------|-----------------------|
| NEW Hainer 2005   | 38 | -9.00(8.46)            | 42 | -4.90(7.30)          | _   | -        | -                  |   | 100.00      | -4.10 [-7.58, -0.62]  |
| Total (95% CI) Test for heterogeneity: not a Test for overall effect: Z = 2 |    |                        | 42 |                      |     | <u> </u> | -                  |   | 100.00      | -4.10 [-7.58, -0.62]  |
|   |    |                        |    |                      | -10 | -5       | 0                  | 5 | 10          |                       |

Review: Sibutramine UPDATE adults only

Comparison: 09 Sibutramine and diet vs placebo and diet (4 months) then open label sibutramine for all participants

Outcome: 02 Weight change in kg at 12 months

| Study or sub-category  | N  | Treatment<br>Mean (SD) | N  | Control<br>Mean (SD) |     | WMD<br>95% | (fixed)<br>% CI |   | Weight<br>% | WMD (fixed)<br>95% CI |
|--|----|------------------------|----|----------------------|-----|------------|-----------------|---|-------------|-----------------------|
| NEW Hainer 2005  | 38 | -12.90(9.57)           | 42 | -11.90(9.28)         |     |            |                 |   | 100.00      | -1.00 [-5.14, 3.14]   |
| Total (95% CI) Test for heterogeneity: not ap Test for overall effect: Z = 0.4 |    |                        | 42 |                      |     |            |                 |   | 100.00      | -1.00 [-5.14, 3.14]   |
|  |    |                        |    |                      | -10 | -5 (       | 0               | 5 | 10          |                       |

Review: Sibutramine UPDATE adults only

Comparison: 09 Sibutramine and diet vs placebo and diet (4 months) then open label sibutramine for all participants

Outcome: 03 Failure to complete at 12 months

| Study or sub-category              | Treatment n/N  | Control<br>n/N |         | RR (fixe    | ,         | Weight<br>% | RR (fixed)<br>95% CI |
|------------------------------------|----------------|----------------|---------|-------------|-----------|-------------|----------------------|
| 01 Weight loss                     |                |                |         |             |           |             |                      |
| NEW Hainer 2005                    | 23/100         | 23/100         |         | _           | _         | 100.00      | 1.00 [0.60, 1.66]    |
| Subtotal (95% CI)                  | 100            | 100            |         | •           | >         | 100.00      | 1.00 [0.60, 1.66]    |
| Total events: 23 (Treatment)       | , 23 (Control) |                |         | T           |           |             |                      |
| Test for heterogeneity: not a      | pplicable      |                |         |             |           |             |                      |
| Test for overall effect: $Z = 0$ . | 00 (P = 1.00)  |                |         |             |           |             |                      |
|                                    |                |                | 0.1 0.2 | 0.5 1       | 2         | 5 10        |                      |
|                                    |                |                | Favoure | treatment F | avoure co | ntrol       |                      |

**Appendix 18** 

# 2

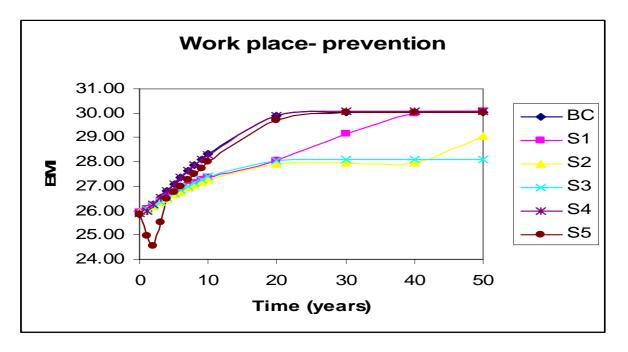
# **HEALTH ECONOMICS: PUBLIC HEALTH**

Table 1. Mortality by age and sex

| Age (years) | Male     | Female   | Age (years) | Male     | Female   |
|-------------|----------|----------|-------------|----------|----------|
| 0           | 0.005725 | 0.004715 | 51          | 0.004243 | 0.002774 |
| 1           | 0.000414 | 0.000364 | 52          | 0.004652 | 0.002925 |
| 2           | 0.000243 | 0.000204 | 53          | 0.004981 | 0.003281 |
| 3           | 0.000182 | 0.000139 | 54          | 0.005400 | 0.003502 |
| 4           | 0.000145 | 0.000143 | 55          | 0.005933 | 0.003839 |
| 5           | 0.000114 | 0.000114 | 56          | 0.006375 | 0.004209 |
| 6           | 0.000122 | 0.000113 | 57          | 0.007333 | 0.004551 |
| 7           | 0.000101 | 0.000090 | 58          | 0.007923 | 0.005022 |
| 8           | 0.000106 | 0.000080 | 59          | 0.008772 | 0.005568 |
| 9           | 0.000117 | 0.000075 | 60          | 0.010084 | 0.006298 |
| 10          | 0.000106 | 0.000100 | 61          | 0.011025 | 0.006754 |
| 11          | 0.000122 | 0.000080 | 62          | 0.012525 | 0.007445 |
| 12          | 0.000142 | 0.000122 | 63          | 0.013254 | 0.008134 |
| 13          | 0.000173 | 0.000107 | 64          | 0.014909 | 0.009035 |
| 14          | 0.000192 | 0.000132 | 65          | 0.016209 | 0.009820 |
| 15          | 0.000254 | 0.000137 | 66          | 0.017756 | 0.010953 |
| 16          | 0.000321 | 0.000210 | 67          | 0.019749 | 0.012030 |
| 17          | 0.000486 | 0.000229 | 68          | 0.022014 | 0.013572 |
| 18          | 0.000644 | 0.000250 | 69          | 0.024525 | 0.014919 |
| 19          | 0.000613 | 0.000303 | 70          | 0.026694 | 0.016276 |
| 20          | 0.000738 | 0.000253 | 71          | 0.030018 | 0.018466 |
| 21          | 0.000666 | 0.000270 | 72          | 0.033499 | 0.021096 |
| 22          | 0.000778 | 0.000274 | 73          | 0.037136 | 0.023658 |
| 23          | 0.000760 | 0.000297 | 74          | 0.041829 | 0.026625 |
| 24          | 0.000716 | 0.000279 | 75          | 0.046822 | 0.030265 |
| 25          | 0.000820 | 0.000318 | 76          | 0.052029 | 0.033726 |
| 26          | 0.000786 | 0.000348 | 77          | 0.057773 | 0.037443 |
| 27          | 0.000766 | 0.000331 | 78          | 0.063690 | 0.042188 |
| 28          | 0.000815 | 0.000352 | 79          | 0.071991 | 0.046527 |
| 29          | 0.000851 | 0.000397 | 80          | 0.078723 | 0.052626 |
| 30          | 0.000923 | 0.000438 | 81          | 0.087252 | 0.058660 |
| 31          | 0.000938 | 0.000461 | 82          | 0.095888 | 0.066367 |
| 32          | 0.001038 | 0.000476 | 83          | 0.102962 | 0.072231 |
| 33          | 0.001027 | 0.000510 | 84          | 0.112893 | 0.081454 |
| 34          | 0.001052 | 0.000596 | 85          | 0.125632 | 0.092885 |
| 35          | 0.001124 | 0.000590 | 86          | 0.145341 | 0.107513 |
| 36          | 0.001218 | 0.000658 | 87          | 0.160356 | 0.120096 |
| 37          | 0.001303 | 0.000695 | 88          | 0.176224 | 0.134309 |
| 38          | 0.001280 | 0.000843 | 89          | 0.192971 | 0.149487 |
| 39          | 0.001458 | 0.000882 | 90          | 0.204588 | 0.166094 |
| 40          | 0.001596 | 0.000939 | 91          | 0.222805 | 0.183601 |
| 41          | 0.001649 | 0.000997 | 92          | 0.247299 | 0.206840 |
| 42          | 0.001824 | 0.001144 | 93          | 0.272060 | 0.229441 |
| 43          | 0.002134 | 0.001301 | 94          | 0.287803 | 0.252408 |
| 44          | 0.002147 | 0.001458 | 95          | 0.326015 | 0.272554 |
| 45          | 0.002348 | 0.001549 | 96          | 0.342374 | 0.299233 |
| 46          | 0.002626 | 0.001794 | 97          | 0.368259 | 0.323896 |
| 47          | 0.002960 | 0.001992 | 98          | 0.396878 | 0.349627 |
| 48          | 0.003206 | 0.002159 | 99          | 0.417557 | 0.376015 |
| 49          | 0.003560 | 0.002275 | 100         | 0.443119 | 0.407128 |
| 50          | 0.003909 | 0.002578 |             |          |          |

1 2

Figure 1. Body mass index (BMI; kg/m²) vs. time for work place counselling





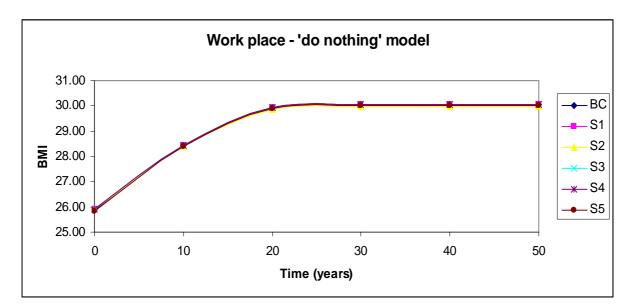
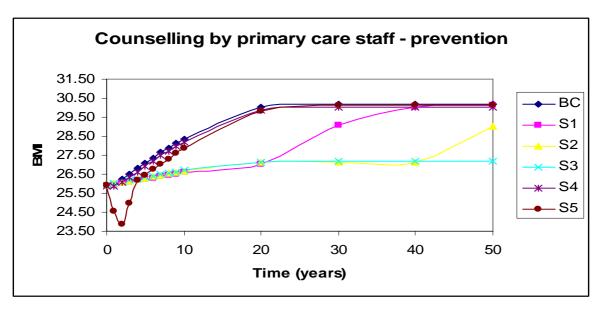
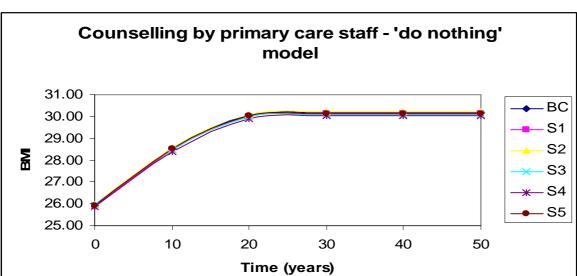
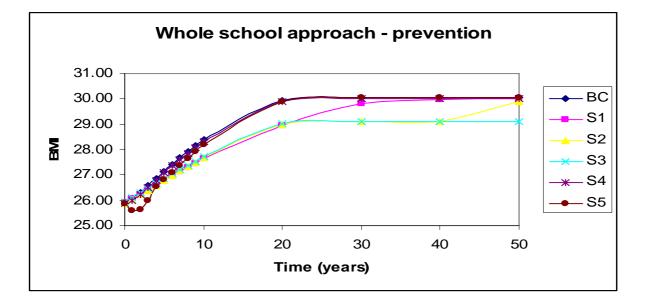


Figure 2. Body mass index (BMI;  $kg/m^2$ ) vs. time for counselling by primary care staff

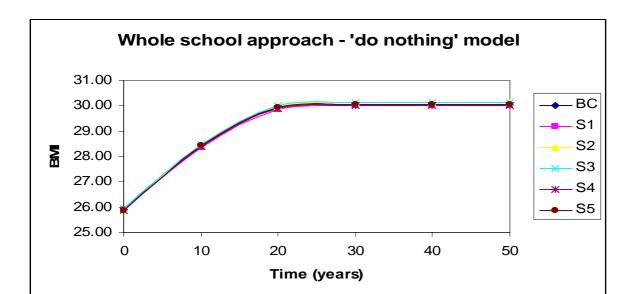




Body mass index (BMI; kg/m<sup>2</sup>) vs. time for the whole school approach Figure 3.



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# THE COST-EFFECTIVENESS OF INTERVENTIONS TO PREVENT OBESITY: EVIDENCE SUMMARY TABLES

|                       | desig                          | R e s e a r c h t y p e | R e s e a r c h q u a li t v | Study<br>population   | Research question<br>and design<br>(include power<br>calculation if<br>available)  | Length of follow-up  | Main results (include effect size(s)/confidence intervals for each outcome if available)  | Confounders<br>(potential<br>sources of<br>bias)/<br>Comments  |
|-----------------------|--------------------------------|-------------------------|------------------------------|---|--|--|---|--|
| Evidence of           | f efficac                      | ev (i                   | J                            | nal validity) for w   | veight maintenance/r   | eduction   |   |  |
| 2004 [1] o d c c o tt | contr<br>olled<br>rial<br>(RCT | 1                       | +                            | The study population included Perth couples who were cohabiting for the first time, had not been living together for more than 2 years, intended to stay in Perth for the 2 years and were not planning a pregnancy.  Average age 29.4 (SD 8.2) years.  Individuals were excluded | Aim: To investigate the effect that diet and PA programmes have on couples.  Couples were randomised to one of two interventions or a control.  The low-level intervention group received an initial introductory group workshop, followed by mail outs.  The high-level intervention group received mail outs alternated with | 16-week intervention 8-month follow-up (1 year after baseline) | Intervention is more effective than doing nothing.  The high intervention group showed substantial marginal improvement compared to the low intervention group. This was particularly the case for blood cholesterol, blood pressure, fat intake and fitness.  There was no significant difference in body mass index (BMI) at either 4 or 12 months. | Limitations: No allocation concealment.  Potential for bias caused by the over representation of higher socioeconomic status (SES).  Participants were chosen who responded to an advertisement , these were potentially more motivated to begin with. |

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|--|--|-------|---|--|--|---|--|
|  |  |       | if they suffered<br>from heart<br>disease,<br>diabetes or<br>severe asthma.   | interactive<br>sessions, with a<br>dietitian and the<br>exercise<br>physiologist.  |  |   | Intention to<br>treat (ITT)<br>analysis was<br>used.   |
|  |  |       | 137 couples<br>entered the<br>study, 111<br>completed the<br>testing at the<br>end of the<br>programme and<br>81 attended<br>follow-up after<br>1 year. | Control patients were invited for measurement (they were offered the programme at the end of the study).  Programme delivered by health promotion professionals. |  |   |  |
|  |  |       |   | Power calculation: $p = 0.05$ with a power of 80% as a minimum.  |  |   |  |
| Israel<br>1985<br>(includ<br>ed in<br>McLea<br>n 2003<br>system<br>atic<br>review)<br>{4282} | Rand<br>omise<br>d<br>contr<br>olled<br>trial<br>(RCT<br>) |       | Thirty-three families, children aged between 8–12 years and at least 20% over IBW; mean age 11 years and 4 months.                                      | To evaluate the effect of explicit and additional training in general child management skills in the context of a behavioural treatment programme for            | Behavioura I weight reduction only group and behavioural weight reduction plus parent training group | Changes in weight at 1-year behavioural weight reduction plus parent training vs. behavioural weight reduction only: 5.2 ( <i>n</i> = 11) vs. 4.8 kg ( <i>n</i> = 9).  Change in % overweight at 1 year | Thirty-three families, children aged between 8–12 years and at least 20% over IBW; mean age 11 years and 4 months. |
|  |  |       | Behavioural weight reduction only group, $n = 12$ (nine girls, three boys,  | overweight children.   | received identical treatment consisting of stimulus control  | behavioural weight reduction plus parent training vs. behavioural weight reduction only: -10.2 (n = 11) % vs1.3%  | Behavioural weight reduction only group, $n = 12$ (nine  |

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|-----------------|-------------------|---|----------------------|----------------|
|                 | range 9-          | cues,                                   | (n = 9).             | girls, three   |
|                 | 12 years).        | exercise,                               |                      | boys, range    |
|                 |                   | food intake                             | No significant       | 9–12 years).   |
|                 | Behavioural       | and                                     | difference between   | ,              |
|                 | weight            | rewards;                                | two active treatment | Behavioural    |
|                 | reduction plus    | responsibili                            | groups.              | weight         |
|                 | parent training   | ty for                                  | 9.0420.              | reduction      |
|                 | group, $n = 12$   | monitoring                              |                      | plus parent    |
|                 | (eight girls,     | was                                     |                      | training       |
|                 | four boys,        | divided                                 |                      | •              |
|                 |                   |   |                      | group,         |
|                 | range 8–          | between                                 |                      | n = 12 (eight  |
|                 | 13 years).        | parent and                              |                      | girls, four    |
|                 |                   | child, also                             |                      | boys, range    |
|                 | Wait list         | included                                |                      | 8-13 years).   |
|                 | control group,    | homework.                               |                      |                |
|                 | n = 9 (six girls, |   |                      | Wait list      |
|                 | three boys,       | Behavioura                              |                      | control        |
|                 | range 9-          | I weight                                |                      | group, $n = 9$ |
|                 | 12 years).        | reduction                               |                      | (six girls,    |
|                 |                   | plus parent                             |                      | three boys,    |
|                 |                   | training                                |                      | range 9-       |
|                 |                   | group also                              |                      | 12 years).     |
|                 |                   | received 2-                             |                      | , ,            |
|                 |                   | hour-long                               |                      |                |
|                 |                   | sessions of                             |                      |                |
|                 |                   | instruction                             |                      |                |
|                 |                   | in                                      |                      |                |
|                 |                   | behavioural                             |                      |                |
|                 |                   | child                                   |                      |                |
|                 |                   | manageme                                |                      |                |
|                 |                   | nt skills                               |                      |                |
|                 |                   | prior to                                |                      |                |
|                 |                   | start of                                |                      |                |
|                 |                   |   |                      |                |
|                 |                   | programme                               |                      |                |
|                 |                   | , |                      |                |
|                 |                   | understand                              |                      |                |
|                 |                   | ing was                                 |                      |                |
|                 |                   | tested in                               |                      |                |
|                 |                   | three                                   |                      |                |
|                 |                   | quizzes                                 |                      |                |
|                 |                   | and                                     |                      |                |

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|                |                | concepts were referred to in treatment programme   |
|                |                | Nine × 90 min sessions then brief problem- solving discussions at 1, 2, 4, 6, 9 and 12 months including telephone calls. |

Overall strength of evidence of efficacy for weight outcomes = 1+

| Evidence of efficacy (internal validity) for diet outcomes |       |   |        |                  |                  |                          |                            |                  |  |
|--|-------|---|--------|------------------|------------------|--------------------------|----------------------------|------------------|--|
| Aldana   | Befor | 2 | _      | The study        | Aim:             | 2 years                  | Of the eligible employees  | There was no     |  |
| et al.   | e and |   |        | population was   | To assess the    |                          | 1407 participated in       | control group to |  |
| 2005   | after |   |        | employees and    | effect the WCSD  |                          | either 2001 or 2002, and   | compare the      |  |
| [2]  | study |   |        | retirees of the  | Wellness         |                          | 1264 in both. The          | results with.    |  |
| [-]  |       |   | Washoe | Programme on     |                  | majority were >50 years, |                            |                  |  |
|  |       |   |        | County School    | employee         |                          | female, had a certified    |                  |  |
|  |       |   |        | District         | healthcare costs |                          | job classification, worked |                  |  |
|  |       |   |        | (WCSD) in        | and the rates of |                          | at least 6 years and had   |                  |  |
|  |       |   |        | 1997 to 2002.    | absenteeism.     |                          | not participated in any of |                  |  |
|  |       |   |        |                  |                  |                          | the wellness               |                  |  |
|  |       |   |        | Participants     | There were 11    |                          | programmes.                |                  |  |
|  |       |   |        | were eligible if | different        |                          |                            |                  |  |
|  |       |   |        | they had been    | programmes       |                          | The results for each of    |                  |  |
|  |       |   |        | employed full    | offered to all   |                          | the programmes are as      |                  |  |

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|         |             | time by the       | participants. The    | follows:                   |  |
|         |             | district for      | programmes were      |                            |  |
|         |             | $\geq 3$ years,   | promoted over the    | 1) 166 participants, there |  |
|         |             | including 2001    | internet and email.  | was a significant increase |  |
|         |             | and 2002.         |                      | in brushing and flossing;  |  |
|         |             | 6246 were         | The programmes       | 2) 1761 participants, 91%  |  |
|         |             | eligible; of this | were:                | reported no weight gain.   |  |
|         |             | 1441 were         | 1) Brighten your     | For those who lost         |  |
|         |             | retired.          | smile –              | weight, they lost 2.5 lb   |  |
|         |             |                   | participants were    | (1.13 kg) on average; 3),  |  |
|         |             | Participants      | encouraged to        | 4), 5), 7), 9) and 11) had |  |
|         |             | enrolled on       | brush and floss      | 2736 participants; 6) and  |  |
|         |             | line or at any    | their teeth twice    | 8) had 3288 participants,  |  |
|         |             | of the different  | per day;             | and reported a 90%         |  |
|         |             | district schools  | 2) Holiday weight    | compliance to dietary and  |  |
|         |             | or facilities.    | challenge – this     | exercise                   |  |
|         |             |                   | encouraged           | recommendations.           |  |
|         |             |                   | responsible energy   |                            |  |
|         |             |                   | intake and           | Programme completion       |  |
|         |             |                   | expenditure during   | rates ranged from 62 to    |  |
|         |             |                   | the holiday          | 82%                        |  |
|         |             |                   | season;              |                            |  |
|         |             |                   | 3) Water challenge   | The number of days         |  |
|         |             |                   | – promoted           | missed of work increased   |  |
|         |             |                   | dehydration          | with age and years         |  |
|         |             |                   | awareness;           | worked and was higher      |  |
|         |             |                   | 4) Tame the TV –     | among males and            |  |
|         |             |                   | encouraged the       | classified employees.      |  |
|         |             |                   | substituted of       | classifica chipioyees.     |  |
|         |             |                   | healthier activities | The days of work           |  |
|         |             |                   | for TV;              | significantly decreased    |  |
|         |             |                   | 5) March nutrition   | with the level of wellness |  |
|         |             |                   | mystery – by         | participation.             |  |
|         |             |                   | eating five          | participation.             |  |
|         |             |                   | portions of fruit    |                            |  |
|         |             |                   | and vegetables per   |                            |  |
|         |             |                   | day clues to a       |                            |  |
|         |             |                   | mystery became       |                            |  |
|         |             |                   | available;           |                            |  |
|         |             |                   | 6) Mount Everest     |                            |  |
|         |             |                   | fitness challenge –  |                            |  |
|         | L           |                   | nuiess challelige –  |                            |  |

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|          |        |     |   |                | teams moved up a    |           |                          |                   |
|          |        |     |   |                | web-based map of    |           |                          |                   |
|          |        |     |   |                | Mount Everest by    |           |                          |                   |
|          |        |     |   |                | exercising;         |           |                          |                   |
|          |        |     |   |                | 7) Test your rest – |           |                          |                   |
|          |        |     |   |                | 7–9 hours sleep     |           |                          |                   |
|          |        |     |   |                | per night was       |           |                          |                   |
|          |        |     |   |                | encouraged;         |           |                          |                   |
|          |        |     |   |                | 8) Iron man         |           |                          |                   |
|          |        |     |   |                | triathlon fitness   |           |                          |                   |
|          |        |     |   |                | challenge – the     |           |                          |                   |
|          |        |     |   |                | teams moved up a    |           |                          |                   |
|          |        |     |   |                | course by           |           |                          |                   |
|          |        |     |   |                | exercising,         |           |                          |                   |
|          |        |     |   |                | drinking water and  |           |                          |                   |
|          |        |     |   |                | eating fruits and   |           |                          |                   |
|          |        |     |   |                | vegetables;         |           |                          |                   |
|          |        |     |   |                | 9) Train your brain |           |                          |                   |
|          |        |     |   |                | - encouraged        |           |                          |                   |
|          |        |     |   |                | participants to     |           |                          |                   |
|          |        |     |   |                | read for a few      |           |                          |                   |
|          |        |     |   |                | minutes each day;   |           |                          |                   |
|          |        |     |   |                | 10) Exercise for    |           |                          |                   |
|          |        |     |   |                | life – participants |           |                          |                   |
|          |        |     |   |                | committed to 8      |           |                          |                   |
|          |        |     |   |                | weeks of exercise;  |           |                          |                   |
|          |        |     |   |                | 11) Buckle up       |           |                          |                   |
|          |        |     |   |                | America – the       |           |                          |                   |
|          |        |     |   |                | wearing of          |           |                          |                   |
|          |        |     |   |                | seatbelts was       |           |                          |                   |
|          |        |     |   |                |                     |           |                          |                   |
| Proper   | RCT    | 1   | + | The study      | encouraged. Aim:    | The       | The results of the study | The authors'      |
| 2004 [3] | indivi | 1   |   | population was | To investigate the  | intervent | show that 'a significant | note that several |
| 2004 [3] | dual   |     |   | recruited from | efficacy of         | ion       | positive intervention    | potential         |
|          | uuai   |     |   | three          | physical activity   | lasted 9  | effect was observed for  | benefits were     |
|          |        |     |   | municipal      | (PA) counselling    | months.   | energy expenditure'.     | not included in   |
|          |        |     |   | services of a  | at a worksite. Cost | Outcome   | Participants in the      | the study. These  |
|          |        |     |   | Dutch town.    | benefit and cost-   | s were    | intervention group       | included          |
|          |        |     |   | Dukii towii.   | effectiveness were  | investiga | expended more energy     | employee          |
|          |        |     |   | To be included | looked at. Costs of | ted       | per day. The controls    | turnover,         |
|          |        |     |   | participants   | the intervention    | during    | decreased their energy   | productivity,     |
|          | ]      |     |   | participants   | me miervemion       | uuring    | decreased their energy   | productivity,     |

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|        |             |      | had to be a     | were compared to    | the same  | expenditure. The mean     | commitment to    |
|        |             |      | civil servant;  | the monetary        | 9         | energy expenditure was    | the company      |
|        |             |      | perform office  | benefits from a     | months    | 64 kcal (268 kJ)/day, for | and improved     |
|        |             |      | work; work at   | reduction in sick   | 1 year    | the intervention group,   | corporate image. |
|        |             |      | least 24 hours  | leave.              | after the | and -129 kcal (-540       |                  |
|        |             |      | per week at the |                     | intervent | kJ)/day for the control   | Healthcare       |
|        |             |      | local           | Patients were       | ion.      | group.                    | costs, due to    |
|        |             |      | municipal       | randomised to       |           |                           | medical          |
|        |             |      | service of      | either the          |           | The fitness level of the  | consumption or   |
|        |             |      | Enschde; and    | intervention group  |           | intervention group        | therapy, were    |
|        |             |      | have a contract | or a control group. |           | improved, compared with   | not taken on to  |
|        |             |      | until at least  |                     |           | the controls.             | account.         |
|        |             |      | the end of the  | Participants in the |           |                           |                  |
|        |             |      | post-test.      | intervention group  |           | The effect on the         |                  |
|        |             |      |                 | were offered seven  |           | proportion of subjects    |                  |
|        |             |      | The mean age    | consultations,      |           | meeting public health     |                  |
|        |             |      | of the          | which took place    |           | recommendation for        |                  |
|        |             |      | intervention    | at the worksite.    |           | moderate-intensity PA     |                  |
|        |             |      | group was       | The counselling     |           | was not significant.      |                  |
|        |             |      | 43.8 years and  | promoted PA and     |           |                           |                  |
|        |             |      | for the control | healthy dietary     |           | The prevalence of upper   |                  |
|        |             |      | group was       | habits.             |           | extremity symptoms        |                  |
|        |             |      | 43.7 years.     | Standardised        |           | decreases more in the     |                  |
|        |             |      |                 | protocols and the   |           | intervention group; no    |                  |
|        |             |      |                 | individual's stage  |           | significant effect was    |                  |
|        |             |      |                 | of behaviour        |           | found.                    |                  |
|        |             |      |                 | change were used    |           |                           |                  |
|        |             |      |                 | as guides. Stage of |           |                           |                  |
|        |             |      |                 | development was     |           |                           |                  |
|        |             |      |                 | determined using    |           |                           |                  |
|        |             |      |                 | baseline            |           |                           |                  |
|        |             |      |                 | measurements.       |           |                           |                  |
|        |             |      |                 | Advice offered      |           |                           |                  |
|        |             |      |                 | was tailored to the |           |                           |                  |
|        |             |      |                 | individual. The     |           |                           |                  |
|        |             |      |                 | counsellor and the  |           |                           |                  |
|        |             |      |                 | employee devised    |           |                           |                  |
|        |             |      |                 | a plan to improve   |           |                           |                  |
|        |             |      |                 | PA and nutrition.   |           |                           |                  |
|        |             |      |                 |                     |           |                           |                  |
|        |             |      |                 | Both the            |           |                           |                  |
| -      |             |      | •               | ,                   |           |                           |                  |

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|---------|-------|-------|---|----------------|---------------------|--------|----------------------------|-------------------|
|         |       |       |   |                | intervention group  |        |                            |                   |
|         |       |       |   |                | and the control     |        |                            |                   |
|         |       |       |   |                | group received      |        |                            |                   |
|         |       |       |   |                | written             |        |                            |                   |
|         |       |       |   |                | information about   |        |                            |                   |
|         |       |       |   |                | lifestyle factors   |        |                            |                   |
|         |       |       |   |                | (PA, nutrition,     |        |                            |                   |
|         |       |       |   |                | alcohol, smoking,   |        |                            |                   |
|         |       |       |   |                | [work] stress, and  |        |                            |                   |
|         |       |       |   |                | musculoskeletal     |        |                            |                   |
|         |       |       |   |                | symptoms).          |        |                            |                   |
| Rajgopa | Befor | 2     | _ | The study      | Aim:                | 1 year | The perspective adopted    | This was a        |
| 1 2002  | e and | _     |   | population     | To evaluate the     | 1 year | was that of the            | general dietary   |
| [4]     | after |       |   | consisted of   | economic efficacy   |        | programme sponsors,        | initiative and    |
| [-1]    | study |       |   | 3100           | of the Virginia     |        | including the federal      | was not targeted  |
|         | study |       |   | homemakers,    | EFNEP. The          |        | leaders and legislators    | at obesity.       |
|         |       |       |   | who had        | monetised health    |        | who determine the          | at obesity.       |
|         |       |       |   | graduated      | benefits were       |        | funding and direction of   | The authors note  |
|         |       |       |   | from Virginia  | compared with the   |        | the programme.             | that data on      |
|         |       |       |   | Expanded       | programme           |        | the programme.             | disease           |
|         |       |       |   | Food and       | implementation      |        | The initial benefit/cost   | incidence rates   |
|         |       |       |   | Nutrition      | -                   |        | ratio was                  | for low-income    |
|         |       |       |   | Education      | costs.              |        |                            |                   |
|         |       |       |   |                | Tl4 1               |        | US\$10.64/US\$1.00,        | populations and   |
|         |       |       |   | Programme      | The study was       |        | indicating that for every  | treatment costs   |
|         |       |       |   | (EFNEP), i.e.  | split into three    |        | one dollar spent more      | for diet-related  |
|         |       |       |   | were included  | phases. The first   |        | than ten dollars may be    | diseases were     |
|         |       |       |   | in the 1996    | investigated        |        | saved in future healthcare | not available for |
|         |       |       |   | sample study.  | behaviours taught   |        | costs.                     | several diseases. |
|         |       |       |   | EFNEP          | in EFNEP that       |        |                            | Some available    |
|         |       |       |   | teaches        | might 'contribute   |        | Sensitivity analysis on    | treatment costs   |
|         |       |       |   | homemakers     | to delay or         |        | the initial assumptions    | did not reflect   |
|         |       |       |   | recommended    | avoidance of diet-  |        | and the lack of incidence  | total economic    |
|         |       |       |   | food-related   | related chronic     |        | data for some disease      | costs of the      |
|         |       |       |   | behaviours and | diseases and        |        | areas gives a benefit/cost | diseases. There   |
|         |       |       |   | food nutrient  | conditions that are |        | ratio ranging from         | was a lack of     |
|         |       |       |   | intakes.       | believed to be      |        | US\$2.66/US\$1.00 to       | data on the       |
|         |       |       |   |                | most prevalent      |        | US\$17.04/US\$1.00.        | portion of some   |
|         |       |       |   |                | among the low-      |        | Reducing in the number     | diseases and      |
|         |       |       |   |                | income              |        | of graduates to achieve    | conditions that   |
|         |       |       |   |                | population'. In the |        | the optimal behaviours     | could be          |
|         |       |       |   |                | second phase        |        | by 75%, the ratio is       | attributed to     |

|          | . •   | <del></del> |          | NOULIATION      |                                      |          |  |                 |
|----------|-------|-------------|----------|-----------------|--------------------------------------|----------|--|-----------------|
|          |       |             |          |                 | SPSS was used to select participants |          | US\$2.66/US\$1.00, and when it is reduced by | diet.           |
|          |       |             |          |                 | from the 3100                        |          | 50% the ratio is                             |                 |
|          |       |             |          |                 | graduated                            |          | US\$5.32/US\$1.00.                           |                 |
|          |       |             |          |                 | homemakers who                       |          | Assuming 50% is the                          |                 |
|          |       |             |          |                 | had met the                          |          | portion of osteoporosis                      |                 |
|          |       |             |          |                 | selected criteria                    |          | due to dietary factors, the                  |                 |
|          |       |             |          |                 | for optimal                          |          | ratio is                                     |                 |
|          |       |             |          |                 | nutritional                          |          | US\$5.91/US\$1.00. Using                     |                 |
|          |       |             |          |                 | behaviour (ONB).                     |          | only estimated disease                       |                 |
|          |       |             |          |                 | The final phase                      |          | incidence rates for low-                     |                 |
|          |       |             |          |                 | gleaned the data                     |          | income populations the                       |                 |
|          |       |             |          |                 | from the previous                    |          | ratio is                                     |                 |
|          |       |             |          |                 | phases in to a                       |          | US\$17.01/US\$1.00.                          |                 |
|          |       |             |          |                 | controlled before                    |          | 03\$17.01703\$1.00.                          |                 |
|          |       |             |          |                 | and after (CBA)                      |          |  |                 |
|          |       |             |          |                 | formula.                             |          |  |                 |
| Roux     | Mark  | 1           | +        | The study       | Aim:                                 | 10, 20,  | A societal perspective                       | The information |
| 2004 [5] | OV    | 1           | <u>'</u> | population      | To assess the cost-                  | 30 and   | was used.                                    | provided is     |
| 2004[3]  | model |             |          | included        | effectiveness of                     | 40 years | was used.                                    | taken from an   |
|          | model |             |          | adults; further | population wide                      | time     | PA access intervention                       | abstract        |
|          |       |             |          | details of the  | strategies to                        | horizons | was the most effective.                      | presentation at |
|          |       |             |          | study           | promote PA in                        | were     | was the most effective.                      | NAASO's 2004    |
|          |       |             |          | population      | adults.                              | used.    | Social support was the                       | annual meeting. |
|          |       |             |          | were not        | addits.                              | usea.    | most cost-effective                          | annual meeting. |
|          |       |             |          | provided.       | A Markov model                       |          | intervention at US\$9,000                    |                 |
|          |       |             |          | provided.       | was developed to                     |          | per quality-adjusted life-                   |                 |
|          |       |             |          |                 | estimate the costs,                  |          | year (QALY), assuming                        |                 |
|          |       |             |          |                 | health gains and                     |          | a 40-year time horizon.                      |                 |
|          |       |             |          |                 | cost-effectiveness.                  |          | a 40-year time norizon.                      |                 |
|          |       |             |          |                 | cost-criccuveness.                   |          | All physical activities                      |                 |
|          |       |             |          |                 | Four public health                   |          | were cost effective                          |                 |
|          |       |             |          |                 | strategies that had                  |          | (ranging from                                |                 |
|          |       |             |          |                 | been strongly                        |          | \$9,000/QALY to                              |                 |
|          |       |             |          |                 | recommended by                       |          | \$30,000/QALT to<br>\$30,000/QALY)           |                 |
|          |       |             |          |                 | the US Task Force                    |          | φ30,000/QAL1)                                |                 |
|          |       |             |          |                 | for Preventative                     |          | The results were sensitive                   |                 |
|          |       |             |          |                 | Services were                        |          | to intervention costs and                    |                 |
|          |       |             |          |                 | investigated.                        |          | efficacy and analytic time                   |                 |
|          |       |             |          |                 | Further details of                   |          | horizon.                                     |                 |
|          |       |             |          |                 | the interventions                    |          | HOHZOH.                                      |                 |
|          |       |             |          |                 | the interventions                    |          |  |                 |

| DIVALL   | 1 011 11 | <del></del> |   | NSULTATION    |                      | 1       | T                      | <del>,                                     </del> |
|----------|----------|-------------|---|---------------|----------------------|---------|------------------------|---|
|          |          |             |   |               | were not provided.   |         |                        |   |
|          |          |             |   |               |                      |         |                        |   |
|          |          |             |   |               | The efficacy         |         |                        |   |
|          |          |             |   |               | estimates were       |         |                        |   |
|          |          |             |   |               | obtained from        |         |                        |   |
|          |          |             |   |               | RCTs. A              |         |                        |   |
|          |          |             |   |               | systematic review    |         |                        |   |
|          |          |             |   |               | of disease burden    |         |                        |   |
|          |          |             |   |               | by exercise status   |         |                        |   |
|          |          |             |   |               |                      |         |                        |   |
|          |          |             |   |               | was used to obtain   |         |                        |   |
|          |          |             |   |               | the relative risk of |         |                        |   |
|          |          |             |   |               | five diseases        |         |                        |   |
|          |          |             |   |               | (coronary heart      |         |                        |   |
|          |          |             |   |               | disease, ischaemic   |         |                        |   |
|          |          |             |   |               | stroke, colorectal   |         |                        |   |
|          |          |             |   |               | cancer, breast       |         |                        |   |
|          |          |             |   |               | cancer and type 2    |         |                        |   |
|          |          |             |   |               | diabetes), for       |         |                        |   |
|          |          |             |   |               | inactive, regularly  |         |                        |   |
|          |          |             |   |               | active, and          |         |                        |   |
|          |          |             |   |               | sufficiency active   |         |                        |   |
|          |          |             |   |               | PA levels.           |         |                        |   |
|          |          |             |   |               | PA levels.           |         |                        |   |
|          |          |             |   |               | mi o iii o           |         |                        |   |
|          |          |             |   |               | The Quality of       |         |                        |   |
|          |          |             |   |               | Well Being Scale     |         |                        |   |
|          |          |             |   |               | was used for data    |         |                        |   |
|          |          |             |   |               | on quality of life.  |         |                        |   |
| Wang     | RCT      | 1           | + | 310 female    | Aim:                 | 2 years | Planet Health would    | No allocation                                     |
| 2003 [6] |          |             |   | middle school | To investigate the   | (fall   | prevent an estimated   | concealment.                                      |
|          | Indivi   |             |   | children in   | effect of Planet     | 1995 to | 1.9% of the female     |   |
|          | dual     |             |   | Boston, MA,   | Health, a school-    | spring  | students from becoming |   |
|          |          |             |   | USA,          | based intervention   | 1997)   | overweight adults.     |   |
|          |          |             |   | metropolitan  | was designed to      | ,       |                        |   |
|          |          |             |   | area. The     | reduce obesity in    |         | Obesity prevalence     |   |
|          |          |             |   | children      | the youth of         |         | declined from 23.6 to  |   |
|          |          |             |   | appear to be  | middle school        |         | 20.4% during the       |   |
|          |          |             |   | 14 years old. | children.            |         | intervention. This     |   |
|          |          |             |   | 14 years old. | cinidien.            |         |                        |   |
|          |          |             |   |               | C1. 11.1             |         | compares with an       |   |
|          |          |             |   |               | Children were        |         | increase from 21.5 to  |   |
|          |          |             |   |               | randomly assigned    |         | 23.7% in the control   |   |
|          |          |             |   |               | to the intervention  |         | group.                 |   |

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|                         |         |          |    |  | group or a control group.  |   | When baseline covariates were controlled the prevalence of obesity in girls from the intervention group was reduced significantly compared to the control girls (odds ratio [OR] $0.47, 95\%$ CI $0.24$ to $0.93, p = 0.03$ ). There were no significant differences found among boys.   |   |
| Wang et al. 2004<br>[7] | ССТ     | 2        | +  | The study population included third graders in Augusta, GA, USA, were included in the study. | The aim was to investigate the cost-effectiveness of an after school obesity prevention programme called MCG FitKid Project. Nine elementary schools were included in the study. | 3 years. Only the first year results are presente d here. | A societal perspective was adopted.  The cost of the programme was US\$546 per student (US\$174,070 per programme).  There was a 0.5% (p = 0.07) body fat reduction in the intervention students.  When comparing the intervention with the control, there was a saving of US\$451 per student in costs of usual after-school care.  The cost-effectiveness ratio was US\$190 per 1% body fat reduction.  For students who attended at least 40 and 80% of the sessions, the | The information provided is taken from an abstract presentation at NAASO's (The Obesity Society's) 2004 annual meeting. |

| DRAFT | FOR | FIRST | CONSI  | II TATION                               |
|-------|-----|-------|--|---|
| DNALL |     |       | $(\mathcal{A}, \mathcal{A}, A$ | ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |

| programme resulted in an average 0.8% (p < 0.01) and 1.2% (p < 0.01) body fat reduction respectively. This was achieved at a cost of US\$634 and US\$839 per student in after-school care costs. Resulting in a per capita net savings of US\$88 and US\$293 respectively. |
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|--|

Evidence of efficacy (internal validity) for physical activity outcomes

Overall strength of evidence of efficacy for physical activity outcomes = 1+

Overall strength of evidence of efficacy for diet outcomes = 1+

**Evidence of corroboration (external validity)** Evidence of salience – Is it appropriate for the UK? Study Research First Study R R Length of Main results Confounders/co design e e population question and follow-up autho mments  $\mathbf{S}$ design e e a r c h t q u al p it

|                         | Evidence                        | for                     | impl                        | lementation – Wil  | l it work in the UK  | ?                   |   |  |
|-------------------------|---------------------------------|-------------------------|-----------------------------|--|--|---------------------|---|--|
| First<br>autho<br>r     | Study<br>design                 | R e s e a r c h t y p e | R e s e a r c h q u al it v | Study<br>population  | Research<br>question and<br>design   | Length of follow-up | Main results  | Confounders/<br>comments   |
| Aldan a et al. 2005 [2] | Before<br>and<br>after<br>study | 2                       |                             | The study population was employees and retirees of the Washoe County School District (WCSD) for the 1997 to 2002.  Participants were eligible if they had been employed full time by the district for three or more years, including 2001 and 2002. 6246 were eligible, of this 1441 were retired. | Aim: To see the effect the WCSD Wellness Programme had on employee healthcare costs and the rates of absenteeism.  There were 11 different programmes offered to all participants. The programmes were promoted over the Internet and email.  The programmes were: 1) Brighten your smile – where participants | 2 years             | Of the eligible employees 1407 participated in either 2001 or 2002, and 1264 in both. The majority were ≥50 years, female, had a certified job classification, worked at least 6 years and had not participated in any of the wellness programmes.  The results for each of the programmes are as follows:  1) 166 participants, there was a significant increase in brushing and flossing; 2) 1761 participants, 91% reported no weight gain. For those who lost weight, they lost 2.5 lb on average; 3), 4), 5), 7), 9) and 11) had 2736 participants; 6) and 8) had 3288 | There was no control group to compare the results with.  This was carried out in the USA, there is not evidence to suggest that similar programmes would not work in the UK. |

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|-----------|--------------|------------------|-------------------|----------------------------|
|           |              | enrolled on line | were              | participants, reporting a  |
|           |              | or at any of the | encouraged to     | 90% compliance to          |
|           |              | different        | brush and floss   | dietary and exercise       |
|           |              | district schools | their teeth twice | recommendations.           |
|           |              | or facilities.   | a day;            |                            |
|           |              |                  | 2) Holiday        | Programme completion       |
|           |              |                  | weight            | rates ranged from 62 to    |
|           |              |                  | challenge – this  | 82%                        |
|           |              |                  | encouraged        |                            |
|           |              |                  | responsible       | The number of days         |
|           |              |                  | energy intake     | missed of work increased   |
|           |              |                  | and expenditure   | with age and years         |
|           |              |                  | during the        | worked and was higher      |
|           |              |                  | holiday season;   | among males and            |
|           |              |                  | 3) Water          | classified employees.      |
|           |              |                  | challenge –       | olussified employees.      |
|           |              |                  | promoted          | The days of work           |
|           |              |                  | dehydration       | significantly decreased    |
|           |              |                  | awareness;        | with the level of wellness |
|           |              |                  | 4) Tame the       | participation.             |
|           |              |                  | television –      | participation.             |
|           |              |                  | encouraged the    |                            |
|           |              |                  | substituted of    |                            |
|           |              |                  | healthier         |                            |
|           |              |                  | activities for    |                            |
|           |              |                  | television;       |                            |
|           |              |                  | 5) March          |                            |
|           |              |                  | nutrition         |                            |
|           |              |                  | mystery – by      |                            |
|           |              |                  | eating five       |                            |
|           |              |                  |                   |                            |
|           |              |                  | portions of fruit |                            |
|           |              |                  | and vegetables    |                            |
|           |              |                  | per day clues to  |                            |
|           |              |                  | a mystery         |                            |
|           |              |                  | became            |                            |
|           |              |                  | available;        |                            |
|           |              |                  | 6) Mount          |                            |
|           |              |                  | Everest fitness   |                            |
|           |              |                  | challenge –       |                            |
|           |              |                  | teams moved up    |                            |
|           |              |                  | a web-based       |                            |

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|--------|------------|------|----|-----------------|--------------------------------|------------|--------------------------|------------------|
|        |            |      |    |                 | map of Mount                   |            |                          |                  |
|        |            |      |    |                 | Everest by                     |            |                          |                  |
|        |            |      |    |                 | exercising;                    |            |                          |                  |
|        |            |      |    |                 | 7) Test your rest              |            |                          |                  |
|        |            |      |    |                 | - 7 to 9 hours                 |            |                          |                  |
|        |            |      |    |                 | sleep per night                |            |                          |                  |
|        |            |      |    |                 | was encouraged;                |            |                          |                  |
|        |            |      |    |                 | 8) Iron man                    |            |                          |                  |
|        |            |      |    |                 | triathlon fitness              |            |                          |                  |
|        |            |      |    |                 | challenge – the                |            |                          |                  |
|        |            |      |    |                 | teams moved up                 |            |                          |                  |
|        |            |      |    |                 | a course by                    |            |                          |                  |
|        |            |      |    |                 | exercising,                    |            |                          |                  |
|        |            |      |    |                 | drinking water                 |            |                          |                  |
|        |            |      |    |                 | and eating fruits              |            |                          |                  |
|        |            |      |    |                 | and vegetables;                |            |                          |                  |
|        |            |      |    |                 | 9) Train your                  |            |                          |                  |
|        |            |      |    |                 | brain –                        |            |                          |                  |
|        |            |      |    |                 | encouraged                     |            |                          |                  |
|        |            |      |    |                 | participants to                |            |                          |                  |
|        |            |      |    |                 | read for a few                 |            |                          |                  |
|        |            |      |    |                 | minutes each                   |            |                          |                  |
|        |            |      |    |                 | day;                           |            |                          |                  |
|        |            |      |    |                 | 10) Exercise for               |            |                          |                  |
|        |            |      |    |                 | life –                         |            |                          |                  |
|        |            |      |    |                 | participants                   |            |                          |                  |
|        |            |      |    |                 | committed to 8                 |            |                          |                  |
|        |            |      |    |                 | weeks of                       |            |                          |                  |
|        |            |      |    |                 | exercise;                      |            |                          |                  |
|        |            |      |    |                 |                                |            |                          |                  |
|        |            |      |    |                 | 11) Buckle up<br>America – the |            |                          |                  |
|        |            |      |    |                 |                                |            |                          |                  |
|        |            |      |    |                 | wearing of                     |            |                          |                  |
|        |            |      |    |                 | seatbelts was                  |            |                          |                  |
| D- 1   | D.C.T.     | 1    |    | TPI 4 1         | encouraged.                    | 16 1       | T                        | TEL 4 1          |
| Dzator | RCT        | 1    | +  | The study       | Aim:                           | 16-week    | Intervention is more     | The study was    |
| 2004   |            |      |    | population      | To investigate                 | interventi | effective than doing     | carried out in   |
| [1]    |            |      |    | included Perth  | the effect that                | on         | nothing.                 | Perth.           |
|        |            |      |    | couples who     | diet and PA                    | 0 4        | TO 1:1:                  | A 11 .           |
|        |            |      |    | were            | programmes                     | 8-month    | The high-intervention    | All topics       |
|        |            |      |    | cohabiting for  | have on couples.               | follow-up  | group showed substantial | presented in     |
|        |            |      |    | the first time, |                                | (1 year    | marginal improvement     | participants are |

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|       |             |      | had not been     | Couples were      | after     | compared with the low-     | generalisable to    |
|       |             |      | living together  | randomised to     | baseline) | intervention group. This   | all countries (i.e. |
|       |             |      | for more than    | one of two        |           | was particularly the case  | the benefits of     |
|       |             |      | 3 years,         | interventions or  |           | for blood cholesterol,     | good nutrition,     |
|       |             |      | intended to stay | a control.        |           | blood pressure, fat intake | how to start an     |
|       |             |      | in Perth for the |                   |           | and fitness.               | exercise            |
|       |             |      | 3 years and      | The low-level     |           |                            | programme,          |
|       |             |      | were not         | intervention      |           | There was no significant   | injury              |
|       |             |      | planning a       | group received    |           | difference in BMI at       | prevention,         |
|       |             |      | pregnancy.       | an initial        |           | either 4 or 12 months.     | recognising signs   |
|       |             |      |                  | introductory      |           |                            | of overexertion,    |
|       |             |      | Average age      | group             |           |                            | back care and       |
|       |             |      | 29.4 (SD         | workshop,         |           |                            | cultivating         |
|       |             |      | 8.2) years.      | followed by       |           |                            | exercise            |
|       |             |      |                  | mail outs.        |           |                            | partners).          |
|       |             |      | Individuals      |                   |           |                            |                     |
|       |             |      | were excluded    | The high-level    |           |                            | Limitations:        |
|       |             |      | if they suffered | intervention      |           |                            | There is a          |
|       |             |      | from heart       | group received    |           |                            | potential for bias  |
|       |             |      | disease,         | mail outs         |           |                            | caused by the       |
|       |             |      | diabetes or      | alternated with   |           |                            | over                |
|       |             |      | severe asthma.   | interactive       |           |                            | representation of   |
|       |             |      |                  | sessions, with a  |           |                            | higher              |
|       |             |      | 137 couples      | dietitian and the |           |                            | socioeconomic       |
|       |             |      | entered the      | exercise          |           |                            | status (SES).       |
|       |             |      | study, 111       | physiologist.     |           |                            | , , ,               |
|       |             |      | completed the    |                   |           |                            | Participants were   |
|       |             |      | testing at the   | Control patients  |           |                            | chosen who          |
|       |             |      | end of the       | were invited for  |           |                            | responded to an     |
|       |             |      | programme and    | measurement       |           |                            | advertisement,      |
|       |             |      | 81 attended      | (they were        |           |                            | these were          |
|       |             |      | follow-up after  | offered the       |           |                            | potentially more    |
|       |             |      | one year.        | programme at      |           |                            | motivated to        |
|       |             |      |                  | the end of the    |           |                            | begin with.         |
|       |             |      |                  | study).           |           |                            |                     |
|       |             |      |                  | 5 )               |           |                            |                     |
|       |             |      |                  | Programme         |           |                            |                     |
|       |             |      |                  | delivered by      |           |                            |                     |
|       |             |      |                  | health            |           |                            |                     |
|       |             |      |                  | promotion         |           |                            |                     |
|       |             |      |                  | professionals.    |           |                            |                     |
|       |             |      |                  | proressionais.    |           |                            |                     |

| be included participants had to be a civil servant; Perform office work; work at least 24 hours per week at the local municipal service of Enschde; and have a contract until at least the end of the post-test.  The mean age of the intervention group was 43.8 years and for the control group was 43.7 years.  The mean age of the control group was 43.7 years.  The offect on the proportion of subjects meeting public health recommendation group was 42.8 years and 42.8 years and 43.8 years and 44.8 ye |    |       |     |   |   |  |   |  |   |  |
|--|----|-------|-----|---|---|--|---|--|---|--|
| population was recruited from three municipal services, of a Dutch town. To be included participants had to be a civil servant; perform office work; work at least 24 hours per week at the local municipal service of Enschde; and have a contract until at least the end of the post-test.  The mean age of the intervention group was 43.8 years and for the control group was 43.7 years.  To investigate the efficacy of PA counselling and the efficacy of DAC consultations, which took  To investigate the efficacy of PA counselling show that 'a significant positive intervention on lasted of the efficacy of Outcomes were Outcomes were out at a worksite. Cost—benefit and cost—test controls were looked at. Costs of the intervention group was 43.7 years.  To investigate the efficacy of On PA counselling as two state of the efficacy of Outcomes were out at a worksite. Outcomes were on lasted of during the during were looked at. Cost so fthe intervention group expended more energy expenditure.  Were outcomes were offect was observed for energy expenditure'. Participants in the intervention group expended more energy ber day. The controls decreased their energy expenditure.  The fitness level of the intervention group improved, compared with the controls.  The effect on the proportion of subjects meeting public health recommendation for moderate-intensity PA was not significant.  The prevalence of upper extremity symptoms decreased more in the intervention group extremity symptoms decreased more in the intervention group or a control group were offered seven consultations, which took  | Pı | roper | RCT | 1 | + | The study  | calculation:<br>p = 0.05 with a<br>power of 80%<br>as a minimum.  | The  | The results of the study  | This study was   |
| worksite. The counselling promoted PA  |    |       |     |   |   | recruited from three municipal services, of a Dutch town. To be included participants had to be a civil servant; perform office work; work at least 24 hours per week at the local municipal service of Enschde; and have a contract until at least the end of the post-test.  The mean age of the intervention group was 43.8 years and for the control group was | the efficacy of PA counselling at a worksite. Cost—benefit and cost—effectiveness were looked at. Costs of the intervention were compared with the monetary benefits from a reduction in sick leave.  Patients were randomised to either the intervention group or a control group.  Participants in the intervention group were offered seven consultations, which took place at the worksite. The counselling | on lasted<br>9 months.<br>Outcomes<br>were<br>investigat<br>ed during<br>the same 9<br>months 1<br>year after<br>the<br>interventi | positive intervention effect was observed for energy expenditure'. Participants in the intervention group expended more energy per day. The controls decreased their energy expenditure.  The fitness level of the intervention group improved, compared with the controls.  The effect on the proportion of subjects meeting public health recommendation for moderate-intensity PA was not significant.  The prevalence of upper extremity symptoms decreased more in the intervention group; no significant effect was | Dutch town therefore may not be generalisable to the UK. The public health recommendation s may not be the same as those given in the UK.  The authors' note that several potential benefits were not included in the study. These included employee turnover, productivity, commitment to the company and improved corporate image.  Healthcare costs, due to medical consumption or therapy, were not taken into |

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|       |         |     |    |              | and healthy                 |        |                               |                 |
|       |         |     |    |              | dietary habits.             |        |                               |                 |
|       |         |     |    |              | Standardised                |        |                               |                 |
|       |         |     |    |              | protocols and               |        |                               |                 |
|       |         |     |    |              | the individual's            |        |                               |                 |
|       |         |     |    |              | stage of                    |        |                               |                 |
|       |         |     |    |              | behaviour                   |        |                               |                 |
|       |         |     |    |              | change were                 |        |                               |                 |
|       |         |     |    |              | used as guides.             |        |                               |                 |
|       |         |     |    |              | Stage of                    |        |                               |                 |
|       |         |     |    |              | development                 |        |                               |                 |
|       |         |     |    |              | was determined              |        |                               |                 |
|       |         |     |    |              | using baseline              |        |                               |                 |
|       |         |     |    |              | measurements.               |        |                               |                 |
|       |         |     |    |              | Advice offered              |        |                               |                 |
|       |         |     |    |              | was tailored to             |        |                               |                 |
|       |         |     |    |              | the individual.             |        |                               |                 |
|       |         |     |    |              | The counsellor              |        |                               |                 |
|       |         |     |    |              | and the                     |        |                               |                 |
|       |         |     |    |              | employee                    |        |                               |                 |
|       |         |     |    |              | devised a plan              |        |                               |                 |
|       |         |     |    |              | to improve PA               |        |                               |                 |
|       |         |     |    |              | and nutrition.              |        |                               |                 |
|       |         |     |    |              | and nutrition.              |        |                               |                 |
|       |         |     |    |              | Both the                    |        |                               |                 |
|       |         |     |    |              | intervention                |        |                               |                 |
|       |         |     |    |              | group and the               |        |                               |                 |
|       |         |     |    |              | control group               |        |                               |                 |
|       |         |     |    |              | received written            |        |                               |                 |
|       |         |     |    |              | information                 |        |                               |                 |
|       |         |     |    |              | about life style            |        |                               |                 |
|       |         |     |    |              | factors (PA,                |        |                               |                 |
|       |         |     |    |              | nutrition,                  |        |                               |                 |
|       |         |     |    |              |                             |        |                               |                 |
|       |         |     |    |              | alcohol,                    |        |                               |                 |
|       |         |     |    |              | smoking, [work]             |        |                               |                 |
|       |         |     |    |              | stress, and musculoskeletal |        |                               |                 |
|       |         |     |    |              |                             |        |                               |                 |
| Daire | Before  | 2   |    | The attended | symptoms).                  | 1      | The manage estimated to the 1 | This was -      |
| Rajgo |         | 2   | _  | The study    | The aim of the              | 1 year | The perspective adopted       | This was a      |
| pal   | and     |     |    | population   | study was to                |        | was that of the               | general dietary |
| 2002  | after   |     |    | consisted of | evaluate the                |        | programme sponsors,           | initiative and  |

|     |       | 31,00 | NSULTATION     |                   |                          |                    |
|-----|-------|-------|----------------|-------------------|--------------------------|--------------------|
| [4] | study |       | 3100           | economic          | including the federal    | was not targeted   |
|     |       |       | homemakers,    | efficacy of the   | leaders and legislators  | at obesity.        |
|     |       |       | who had        | Virginia          | who determine the        |                    |
|     |       |       | graduated from | EFNEP. The        | funding and direction of | This study         |
|     |       |       | the Virginia   | monetised         | the programme.           | investigates the   |
|     |       |       | Expanded Food  | health benefits   |                          | cost benefit of    |
|     |       |       | and Nutrition  | were compared     |                          | the EFNEP          |
|     |       |       | Education      | with the          |                          | programme in       |
|     |       |       | Programme      | programme         |                          | the USA, as such   |
|     |       |       | (EFNEP), i.e.  | implementation    |                          | it might not be    |
|     |       |       | were included  | costs.            |                          | generalisable to   |
|     |       |       | in the 1996    |                   |                          | the UK.            |
|     |       |       | sample study.  | The study was     |                          |                    |
|     |       |       | EFNEP teaches  | split into three  |                          | Limited resource   |
|     |       |       | limited        | phases. The first |                          | homemakers in      |
|     |       |       | resource       | investigated      |                          | the USA may not    |
|     |       |       | homemakers     | behaviours        |                          | have the same      |
|     |       |       | recommended    | taught in         |                          | characteristics as |
|     |       |       | food-related   | EFNEP that        |                          | limited resource   |
|     |       |       | behaviours and | might             |                          | homemakers in      |
|     |       |       | food nutrient  | 'contribute to    |                          | the UK.            |
|     |       |       | intakes.       | delay or          |                          | une 012.           |
|     |       |       | munco.         | avoidance of      |                          |                    |
|     |       |       |                | diet-related      |                          |                    |
|     |       |       |                | chronic diseases  |                          |                    |
|     |       |       |                | and conditions    |                          |                    |
|     |       |       |                | that are believed |                          |                    |
|     |       |       |                | to be most        |                          |                    |
|     |       |       |                | prevalent among   |                          |                    |
|     |       |       |                | the low-income    |                          |                    |
|     |       |       |                | population'. In   |                          |                    |
|     |       |       |                | the second        |                          |                    |
|     |       |       |                | phase SPSS was    |                          |                    |
|     |       |       |                | used to select    |                          |                    |
|     |       |       |                | participants      |                          |                    |
|     |       |       |                | from the 3100     |                          |                    |
|     |       |       |                | graduate          |                          |                    |
|     |       |       |                | homemakers        |                          |                    |
|     |       |       |                | who had met the   |                          |                    |
|     |       |       |                | selected criteria |                          |                    |
|     |       |       |                | for ONB. The      |                          |                    |
|     |       |       | 1              | TOLOTAD, THE      |                          |                    |

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|---------------|---|-----|---|---|---|---|---|---|
| Roux          | Discret   | 3   | X | Members of a  | final phase gleaned the data from the previous phases in to a CBA formula.  Aim:  | N/A   | Attributes with a positive  | This study  |
| 2004 [8]      | e choice experiment (non-random ised experimental design) |     | X | community weight loss programme in the spring of 2001, Calgary, Alberta, Canada.  Participants were ≥25 years, overweight or obese (BMI ≥25 kg/m²), had recently enrolled on the scheme, were not pregnant or nursing and were absence of clinical co- morbidities. | To investigate factors that impact on individual's decision to adhere to a community weight loss programme.                               |   | coefficient (participants were willing to give up something else to move up a level) were amount of doctor time, programme components emphasised, and the programme focus.  Attributes with a negative coefficient (i.e. become less preferable as the absolute magnitude of the coefficients rises) were the programme cost for 3 months and one-way travel time.  Service attributes do play a marked role in the decisions that users of a weight loss programme make. | investigated what influences Canadians' decisions to adhere to a community weight loss programme. These may not be generalisable to different settings.  Limitations: The sample was self-selecting and therefore may not be representative of the general weight loss population; the sample size was small. |
| Wang 2003 [6] | RCT   | 1   | + | 310 female<br>middle school<br>children in<br>Boston, MA,<br>USA,<br>metropolitan<br>area.  | Aim: To investigate the effect of Planet Health, a school-based intervention was designed to reduce obesity in the youth of middle school | 2 years<br>(fall 1995<br>to spring<br>1997) | Planet Health would prevent an estimated 1.9% of the female students from becoming overweight adults.  Obesity prevalence declined from 23.6 to 20.4% during the intervention. This   | The curricula and amount of physical education classes the control group received is likely to be different than the amount typically received by a   |

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|        |        |     |          |                 | children.        |             | compares with an increase                          | UK middle-        |
|        |        |     |          |                 | CI III           |             | of 21.5 to 23.7% in the                            | school child.     |
|        |        |     |          |                 | Children were    |             | control group.                                     |                   |
|        |        |     |          |                 | randomly         |             |  |                   |
|        |        |     |          |                 | assigned to the  |             | When baseline covariates                           |                   |
|        |        |     |          |                 | intervention     |             | were controlled the                                |                   |
|        |        |     |          |                 | group or a       |             | prevalence of obesity in                           |                   |
|        |        |     |          |                 | control group    |             | girls from the intervention                        |                   |
|        |        |     |          |                 |                  |             | group was reduced                                  |                   |
|        |        |     |          |                 |                  |             | significantly compared                             |                   |
|        |        |     |          |                 |                  |             | with the control girls (OR                         |                   |
|        |        |     |          |                 |                  |             | 0.47, 95% CI 0.24 to 0.93,                         |                   |
|        |        |     |          |                 |                  |             | p = 0.03). There were no                           |                   |
|        |        |     |          |                 |                  |             | significant differences                            |                   |
|        |        |     |          |                 |                  |             | found among boys.                                  |                   |
|        |        |     |          |                 |                  |             | A societal perspective                             |                   |
|        |        |     |          |                 |                  |             | was adopted.                                       |                   |
|        |        |     |          |                 |                  |             | The sector Cale                                    |                   |
|        |        |     |          |                 |                  |             | The cost of the                                    |                   |
|        |        |     |          |                 |                  |             | programme was US\$546<br>per student (US\$174,070  | The information   |
|        |        |     |          |                 | Aim:             |             |  | provided is taken |
|        |        |     |          |                 | To investigate   |             | per programme).                                    | from an abstract  |
|        |        |     |          |                 | the cost-        |             | There was a 0.5%                                   | presentation at   |
|        |        |     |          | The study       | effectiveness of |             | (p = 0.07) body-fat                                | NAASO's 2004      |
|        |        |     |          | population      | an after school  | 3 years.    | reduction in the                                   | annual meeting.   |
| Wang   |        |     |          | included third  | obesity          | Only the    | intervention students.                             |                   |
| et al. |        |     |          | graders in      | prevention       | first year  | intervention students.                             | This is a US      |
| 2004   | CCT    | 2   | +        | Augusta, GA,    | programme        | results are | When comparing the                                 | study and as      |
| [7]    |        |     |          | USA, were       | called MCG       | presented   | intervention to the                                | such details      |
| [/]    |        |     |          | included in the | FitKid Project.  | here.       | control, there was a                               | about the school  |
|        |        |     |          |                 | Nine elementary  | nere.       | saving of US\$451 per                              | day and after     |
|        |        |     |          | study.          | schools were     |             | saving of US\$451 per<br>student in costs of usual | care facility may |
|        |        |     |          |                 |                  |             |  | not be            |
|        |        |     |          |                 | included in the  |             | after-school care.                                 | generalisable to  |
|        |        |     |          |                 | study.           |             | The cost-effectiveness                             | the UK.           |
|        |        |     |          |                 |                  |             |  |                   |
|        |        |     |          |                 |                  |             | ratio was US\$190 per 1%                           |                   |
|        |        |     |          |                 |                  |             | body-fat reduction.                                |                   |
|        |        |     |          |                 |                  |             | For students who attended                          |                   |
|        |        |     |          |                 |                  |             | at least 40% and 80% of                            |                   |
|        |        |     |          | 1               |                  |             | at icast 40% and 80% of                            |                   |

|  |  |  | the sessions, the                |  |
|--|--|--|----------------------------------|--|
|  |  |  | programme resulted in an         |  |
|  |  |  | average $0.8\%$ ( $p < 0.01$ )   |  |
|  |  |  | and $1.2\%$ ( $p < 0.01$ ) body- |  |
|  |  |  | fat reduction respectively.      |  |
|  |  |  | This was achieved at a           |  |
|  |  |  | cost of US\$634 and              |  |
|  |  |  | US\$839 per student in           |  |
|  |  |  | after-school care costs.         |  |
|  |  |  | Resulting in a per capita        |  |
|  |  |  | net savings of US\$88 and        |  |
|  |  |  | US\$293 respectively.            |  |

Overall strength of evidence of corroboration = none of the studies were UK studies. All the studies investigated different interventions.

#### **Evidence of cost-effectiveness**

| First<br>autho<br>r | Stud<br>y<br>desig<br>n | Res<br>ear<br>ch<br>typ<br>e | R e s e a r c h q u al it | Study<br>population | Research question and design | Length<br>of<br>follow-<br>up | Main results             | Confounders/<br>comments |
|---------------------|-------------------------|------------------------------|---------------------------|---------------------|------------------------------|-------------------------------|--------------------------|--------------------------|
| Aldan               | Befor                   | 2                            | -                         | The study           | Aim:                         | 2 years                       | Of the eligible          | There was no             |
| a et al.            | e and                   |                              |                           | population was      | To see the effect the        |                               | employees 1407           | control group            |
| 2005                | after                   |                              |                           | employees and       | WCSD Wellness                |                               | participated in either   | to compare the           |
| [2]                 | study                   |                              |                           | retirees of the     | Programme had on             |                               | 2001 or 2002, and        | results with.            |
|                     |                         |                              |                           | Washoe              | employee healthcare          |                               | 1264 in both. The        |                          |
|                     |                         |                              |                           | County School       | costs and the rates of       |                               | majority were 50 years   |                          |
|                     |                         |                              |                           | District            | absenteeism.                 |                               | plus, female, had a      |                          |
|                     |                         |                              |                           | (WCSD) for          |                              |                               | certified job            |                          |
|                     |                         |                              |                           | 1997 to 2002.       | There were 11 different      |                               | classification, worked   |                          |
|                     |                         |                              |                           |                     | programmes offered to        |                               | at least 6 years and had |                          |
|                     |                         |                              |                           | Participants        | all participants. The        |                               | not participated in any  |                          |
|                     |                         |                              |                           | were eligible if    | programmes were              |                               | of the wellness          |                          |
|                     |                         |                              |                           | they had been       | promoted over the            |                               | programmes.              |                          |

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|      |           |      | employed full     | Internet and email.                 |                           |
|      |           |      | time by the       |                                     | The results for each of   |
|      |           |      | district for      | The programmes were:                | the programmes were       |
|      |           |      | ≥3 years,         | 1) Brighten your smile              | as follows:               |
|      |           |      | including 2001    | <ul><li>participants were</li></ul> |                           |
|      |           |      | and 2002.         | encouraged to brush                 | For every certified and   |
|      |           |      | 6246 were         | and floss their teeth               | classified employee       |
|      |           |      | eligible, of this | twice per day;                      | who was absent from       |
|      |           |      | 1441 were         | 2) Holiday weight                   | work, on average, the     |
|      |           |      | retired.          | challenge – this                    | WCSD paid                 |
|      |           |      |                   | encouraged responsible              | US\$231/day and           |
|      |           |      | Participants      | energy intake and                   | US\$103/day               |
|      |           |      | enrolled online   | expenditure during the              | respectively.             |
|      |           |      | or at any of the  | holiday season;                     |                           |
|      |           |      | different         | 3) Water challenge –                | The cost per day of a     |
|      |           |      | district schools  | promoted dehydration                | substitute was US\$75.    |
|      |           |      | or facilities.    | awareness;                          |                           |
|      |           |      |                   | 4) Tame the television              | Programme                 |
|      |           |      |                   | <ul><li>encouraged the</li></ul>    | participation was         |
|      |           |      |                   | substituted of healthier            | associated with a         |
|      |           |      |                   | activities for television;          | US\$3,041,290             |
|      |           |      |                   | 5) March nutrition                  | difference in             |
|      |           |      |                   | mystery – by eating                 | absenteeism cost          |
|      |           |      |                   | five portions of fruits             | during 2001 and 2002,     |
|      |           |      |                   | and vegetables per day              | compared with non-        |
|      |           |      |                   | clues to a mystery                  | participants. This '15.6  |
|      |           |      |                   | became available;                   | [?] times greater than    |
|      |           |      |                   | 6) Mount Everest                    | the total cost for all    |
|      |           |      |                   | fitness challenge –                 | wellness programmes       |
|      |           |      |                   | teams moved up a web-               | during the same time      |
|      |           |      |                   | based map of Mount                  | period'. The              |
|      |           |      |                   | Everest by exercising;              | programme costs           |
|      |           |      |                   | 7) Test your rest – 7 to            | included the costs of     |
|      |           |      |                   | 9 hours sleep per night             | wellness staff, benefits, |
|      |           |      |                   | was encouraged;                     | programme costs, and      |
|      |           |      |                   | 8) Iron man triathlon               | any other associated      |
|      |           |      |                   | fitness challenge – the             | costs.                    |
|      |           |      |                   | teams moved up a                    |                           |
|      |           |      |                   | course by exercising,               | 'These savings            |
|      |           |      |                   | drinking water and                  | translate into a cost     |
|      |           |      |                   | eating fruits and                   | saving of US\$15.6 for    |
|      |           |      |                   |                                     |                           |

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| B               | D.C.T. |        |    |   | vegetables; 9) Train your brain – encouraged participants to read for a few minutes each day; 10) Exercise for life – participants committed to 8 weeks of exercise; 11) Buckle up America – the wearing of seatbelts was encouraged.  |  | every dollar spent on programming.'  |   |
| Dzator 2004 [1] | RCT    | 1      | +  | The study population included Perth couples who were cohabiting for the first time, had not been living together for more than 2 years, intended to stay in Perth for the 2 years and were not planning a pregnancy.  Average age 29.4 (SD 8.2) years.  Individuals were excluded if they suffered from heart disease, diabetes or severe asthma. | Aim: To investigate the effect that diet and PA programmes have on couples.  Couples were randomised to one of two interventions or a control. The low-level intervention group received 'initial introductory group workshop, after which modules were mailed at intervals of 2 to 3 weeks'. The high-level intervention group received 'mail outs alternated with interactive sessions of about eight couples per group, at which the dietitian and the exercise physiologist explained nutritional and exercise techniques, answered questions and reviewed | 16-week interventi on  8-month follow-up (1 year after baseline) | Direct intervention costs were included.  Intervention is more effective than doing nothing.  The high-intervention group showed substantial marginal improvement compared with the low-intervention group. This was particularly the case for blood cholesterol, blood pressure, fat intake and fitness.  The total cost for the high-intervention group was US\$41,854.34 (US\$445.30 per participant, US\$111.33 per month).  The total cost for the low-intervention group | Limitations: There is a potential for bias caused by the over representation of higher SES.  Participants were chosen who responded to an advertisement, these were potentially more motivated to begin with. |

|  | CONSULTATION    |                       |                          |
|--|-----------------|-----------------------|--------------------------|
|  |                 | progress'. Control    | was US\$41,847.26        |
|  | 137 couples     | patients were invited | (US\$445.18 per          |
|  | entered the     | for measurement (they | participant, US\$111.30  |
|  | study, 111      | were offered the      | per month).              |
|  | completed the   | programme at the end  |                          |
|  | testing at the  | of the study).        | At 12-month follow-up    |
|  | end of the      |                       | the total and average    |
|  | programme       | Programme delivered   | incremental costs were   |
|  | and 81          | by health promotion   | US\$43,282.10            |
|  | attended        | professionals.        | (\$460.44 per            |
|  | follow-up after |                       | participant, \$38.37 per |
|  | 1 year.         | Power calculation:    | month) for the high-     |
|  |                 | p = 0.05 with a power | intervention group and   |
|  |                 | of 80% as a minimum.  | \$431,09.43 (\$458.61    |
|  |                 |                       | per participant, \$38.22 |
|  |                 |                       | per month) for the low-  |
|  |                 |                       | intervention group.      |
|  |                 |                       |                          |
|  |                 |                       | 'The results show that   |
|  |                 |                       | the high intervention    |
|  |                 |                       | group achieved greater   |
|  |                 |                       | marginal effectiveness   |
|  |                 |                       | and cost-effectiveness   |
|  |                 |                       | than the low level       |
|  |                 |                       | intervention.'           |
|  |                 |                       |                          |
|  |                 |                       | The average cost of      |
|  |                 |                       | having interactive       |
|  |                 |                       | workshops every two      |
|  |                 |                       | to three weeks post-     |
|  |                 |                       | intervention was         |
|  |                 |                       | US\$445.50 per unit      |
|  |                 |                       | change in the outcome    |
|  |                 |                       | variable; for the high-  |
|  |                 |                       | intervention group; this |
|  |                 |                       | is US\$445.18 for the    |
|  |                 |                       | low-intervention         |
|  |                 |                       | group. This shows that   |
|  |                 |                       | the high-intervention    |
|  |                 |                       | group costs US\$0.12     |
|  |                 |                       | per participant at the   |

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|        |          |       |     |                 |                                 |            | end of the programme    |                 |
|        |          |       |     |                 |                                 |            | and US\$1.84 at the 12- |                 |
|        |          |       |     |                 |                                 |            | months follow-up, to    |                 |
|        |          |       |     |                 |                                 |            | 'achieve an additional  |                 |
|        |          |       |     |                 |                                 |            | average unit of         |                 |
|        |          |       |     |                 |                                 |            | improvement (increase   |                 |
|        |          |       |     |                 |                                 |            | or decrease) in the     |                 |
|        |          |       |     |                 |                                 |            | outcomes additional to  |                 |
|        |          |       |     |                 |                                 |            | that achieved in the    |                 |
|        |          |       |     |                 |                                 |            | low intervention        |                 |
|        |          |       |     |                 |                                 |            | group.'                 |                 |
| Proper | RCT      | 1     | +   | The study       | The aim was to                  | The        | The company             | The authors'    |
| 2004   | indiv    |       |     | population      | investigate the efficacy        | interventi | perspective was used    | note that       |
| [3]    | idual    |       |     | were recruited  | of PA counselling at a          | on lasted  | for the economic        | several         |
|        |          |       |     | from three      | worksite. Cost-benefit          | 9          | evaluation.             | potential       |
|        |          |       |     | municipal       | and cost-effectiveness          | months.    |                         | benefits were   |
|        |          |       |     | services, of a  | were looked at. Costs           | Outcome    | The intervention costs  | not included in |
|        |          |       |     | Dutch town.     | of the intervention             | s were     | were €430 per           | the study.      |
|        |          |       |     | To be included  | were compared with              | investiga  | participant. There were | These included  |
|        |          |       |     | participants    | the monetary benefits           | ted        | no statistically        | employee        |
|        |          |       |     | had to be a     | from a reduction in             | during     | significant differences | turnover,       |
|        |          |       |     | civil servant;  | sick leave.                     | the same   | between the total costs | productivity,   |
|        |          |       |     | perform office  | Siek ieuve.                     | 9 months   | or the sick leave costs | commitment to   |
|        |          |       |     | work; work at   | Patients were                   | 1 year     | between the two         | the company     |
|        |          |       |     | least 24 hours  | randomised to either            | after the  | groups.                 | and improved    |
|        |          |       |     | per week at the | the intervention group          | interventi | groups.                 | corporate       |
|        |          |       |     | local           | or a control group.             | on.        | During the intervention | image.          |
|        |          |       |     | municipal       | of a control group.             | OII.       | the costs due to sick   | image.          |
|        |          |       |     | service of      | Participants in the             |            | leave were lower in the | Healthcare      |
|        |          |       |     | Enschde; and    | intervention group              |            | intervention group by   | costs, due to   |
|        |          |       |     | have a contract | were offered seven              |            | €125 (95% CI –1386 to   | medical         |
|        |          |       |     | until at least  | consultations, which            |            | -1062) (€1915           | consumption     |
|        |          |       |     | the end of the  |                                 |            |                         |                 |
|        |          |       |     |                 | took place at the worksite. The |            | compared with €2040).   | or therapy,     |
|        |          |       |     | post-test.      |                                 |            | Duning the internetion  | were not taken  |
|        |          |       |     | T1              | counselling promoted            |            | During the intervention | on to account.  |
|        |          |       |     | The mean age    | PA and healthy dietary          |            | the mean total cost     |                 |
|        |          |       |     | of the          | habits. Standardised            |            | were higher in the      |                 |
|        |          |       |     | intervention    | protocols and the               |            | intervention group by   |                 |
|        |          |       |     | group was       | individual's stage of           |            | €305 (95% CI –1029 to   |                 |
|        |          |       |     | 43.8 years and  | behaviour change were           |            | -1419) (€2345           |                 |
|        |          |       |     | for the control | used as guides. Stage           |            | compared with €2040).   |                 |

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|      |     |    | oup was   | of development was      |                         |  |
|      |     | 43 | .7 years. | determined using        | The year after the      |  |
|      |     |    |           | baseline measurements.  | intervention the costs  |  |
|      |     |    |           | Advice offered was      | due to sick leave were  |  |
|      |     |    |           | tailored to the         | lower in the            |  |
|      |     |    |           | individual. The         | intervention group by € |  |
|      |     |    |           | counsellor and the      | −635 (95% CI −1885      |  |
|      |     |    |           | employee devised a      | to –814) (€1830         |  |
|      |     |    |           | plan to improve PA      | compared with €2465).   |  |
|      |     |    |           | and nutrition.          |                         |  |
|      |     |    |           |                         | For public health       |  |
|      |     |    |           | Both the intervention   | recommendations met     |  |
|      |     |    |           | group and the control   | the cost-effectiveness  |  |
|      |     |    |           | group received written  | ratio was €–1030 (95%   |  |
|      |     |    |           | information about life  | CI –36,535 to –591)     |  |
|      |     |    |           | style factors (PA,      | per kcal per day per    |  |
|      |     |    |           | nutrition, alcohol,     | employee. Cost for the  |  |
|      |     |    |           | smoking, [work] stress, | intervention group was  |  |
|      |     |    |           | and musculoskeletal     | €2508, compared with    |  |
|      |     |    |           | symptoms).              | a cost of €1947 for the |  |
|      |     |    |           |                         | control. The effect for |  |
|      |     |    |           |                         | the intervention group  |  |
|      |     |    |           |                         | was -6.62, compared     |  |
|      |     |    |           |                         | with an effect of –6.0  |  |
|      |     |    |           |                         | for the control.        |  |
|      |     |    |           |                         |                         |  |
|      |     |    |           |                         | For energy expenditure  |  |
|      |     |    |           |                         | the cost-effectiveness  |  |
|      |     |    |           |                         | ratio was €5.2 (95% CI  |  |
|      |     |    |           |                         | -4.9 to 27.4)/kcal per  |  |
|      |     |    |           |                         | day per employee. Cost  |  |
|      |     |    |           |                         | for the intervention    |  |
|      |     |    |           |                         | group was €2583,        |  |
|      |     |    |           |                         | compared with a cost    |  |
|      |     |    |           |                         | of €1578 for the        |  |
|      |     |    |           |                         | control. The effect for |  |
|      |     |    |           |                         | the intervention group  |  |
|      |     |    |           |                         | was 64.2, compared      |  |
|      |     |    |           |                         | with an effect of -129  |  |
|      |     |    |           |                         | for the control.        |  |
|      |     |    |           |                         |                         |  |

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|-----------------------------|----------------------------------|-------|----|--|--|---------|--|---|
|                             |                                  |       |    |  |  |         | For cardio-respiratory fitness the cost- effectiveness ratio was €235 (95% CI –10.0 to –830) per beats/min decrease in sub- maximal heart rate. Cost for the intervention group was €2223, compared with a cost of €1118 for the control. The effect for the intervention group was –2.2, compared with an effect of 2.5 for the control.  For upper-extremity symptoms the cost- effectiveness ratio was €53.6 (95% CI –101 to –810). Cost for the intervention group was €2461, compared with a cost of €1829 for the control. The effect for the intervention group was –17.9, compared with an effect of –6.2 for the control. |   |
| Rajgo<br>pal<br>2002<br>[4] | Befor<br>e and<br>after<br>study | 2     | -  | The study<br>population<br>consisted of<br>3100<br>homemakers,<br>who had<br>graduated | The aim of the study was to evaluate the economic efficacy of the Virginia EFNEP. The monetised health benefits were compared to the | 1 year. | The perspective adopted was that of the programme sponsors, including the federal leaders and legislators who determine the funding and direction  | This is a general dietary initiative and is not targeted at obesity.  The authors |
|                             |                                  |       |    | from the Virginia Expanded   | programme implementation costs.  |         | of the programme.  The initial benefit/cost  | note that data<br>on disease<br>incidence rates                                   |

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|------|-----------|---|-----|----------------|---------------------------|-----|--------------------------|-----------------|
|      |           |   |     | Food and       | The study was split       |     | ratio was                | for low-        |
|      |           |   |     | Nutrition      | into three phases. The    |     | US\$10.64/US\$1.00,      | income          |
|      |           |   |     | Education      | first investigated        |     | indicating that for      | populations     |
|      |           |   |     | Programme      | behaviours taught in      |     | every one dollar spent   | and treatment   |
|      |           |   |     | (EFNEP), i.e.  | EFNEP that might          |     | more than ten dollars    | costs for diet  |
|      |           |   |     | were included  | 'contribute to delay or   |     | may be saved in future   | related         |
|      |           |   |     | in the 1996    | avoidance of diet-        |     | healthcare costs.        | diseases was    |
|      |           |   |     | sample study.  | related chronic diseases  |     |                          | not available   |
|      |           |   |     | EFNEP          | and conditions that are   |     | Sensitivity analysis on  | for several     |
|      |           |   |     | teaches        | believed to be most       |     | the initial assumptions  | diseases. Some  |
|      |           |   |     | homemakers     | prevalent among the       |     | and the lack of          | available       |
|      |           |   |     | recommended    | low-income                |     | incidence data for       | treatment costs |
|      |           |   |     | food-related   | population'. In the       |     | some disease areas       | did not reflect |
|      |           |   |     | behaviours and | second phase SPSS         |     | gave a benefit/cost      | total economic  |
|      |           |   |     | food nutrient  | was used to select        |     | ratio ranging from       | costs of the    |
|      |           |   |     | intakes.       | participants from the     |     | US\$2.66/\$1.00 to       | diseases. There |
|      |           |   |     |                | 3100 graduated            |     | US\$17.04/\$1.00.        | was a lack of   |
|      |           |   |     |                | homemakers who had        |     | Reducing in the          | data on the     |
|      |           |   |     |                | met the selected criteria |     | number of graduates to   | portion of      |
|      |           |   |     |                | for ONB. The final        |     | achieve the optimal      | some diseases   |
|      |           |   |     |                | phase gleaned the data    |     | behaviours by 75%, the   | and conditions  |
|      |           |   |     |                | from the previous         |     | ratio was                | that could be   |
|      |           |   |     |                | phases in to a CBA        |     | US\$2.66/\$1.00, and     | attributed to   |
|      |           |   |     |                | formula.                  |     | when it was reduced by   | diet.           |
|      |           |   |     |                | Torrida.                  |     | 50% the ratio was        | arct.           |
|      |           |   |     |                |                           |     | \$5.32/\$1.00. Assuming  |                 |
|      |           |   |     |                |                           |     | 50% is the portion of    |                 |
|      |           |   |     |                |                           |     | osteoporosis due to      |                 |
|      |           |   |     |                |                           |     | dietary factors, the     |                 |
|      |           |   |     |                |                           |     | ratio is                 |                 |
|      |           |   |     |                |                           |     | US\$5.91/US\$1.00.       |                 |
|      |           |   |     |                |                           |     | Using only estimated     |                 |
|      |           |   |     |                |                           |     | disease incidence rates  |                 |
|      |           |   |     |                |                           |     | for low-income           |                 |
|      |           |   |     |                |                           |     | populations the ratio is |                 |
|      |           |   |     |                |                           |     | US\$17.01/US\$1.00.      |                 |
| Roux | Discr     | 3 | X   | Members of a   | Aim:                      | N/A | Participants were        | Limitations:    |
| 2004 | ete       |   | X   | community      | To investigate factors    |     | willing to pay an extra  | The sample      |
| [8]  | choic     |   | X   | weight loss    | that impact on an         |     | US\$600 out-of-pocket    | was self-       |
|      | e         |   |     | programme in   | individual's decision to  |     | for a 3-month weight     | selecting and   |
|      | exper     |   |     | the spring of  | adhere to a community     |     | loss programme that      | therefore may   |

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|------|-------|------|----|-----------------------------|--------------------------|-----------|--------------------------|-----------------|
|      | iment |      |    | 2001, Calgary               | weight loss              |           | was more accessible,     | not be          |
|      | (non- |      |    | Alberta,                    | programme.               |           | comprehensive and        | representative  |
|      | rando |      |    | Canada.                     |                          |           | tailored when            | of the general  |
|      | mise  |      |    |                             |                          |           | compared to the          | weight loss     |
|      | d     |      |    | Participants                |                          |           | current available        | population; the |
|      | exper |      |    | were                        |                          |           | programme.               | sample size     |
|      | iment |      |    | ≥25 years,                  |                          |           |                          | was small.      |
|      | al    |      |    | overweight or               |                          |           | Service attributes do    |                 |
|      | desig |      |    | obese (BMI                  |                          |           | play a marked role in    |                 |
|      | n)    |      |    | $\geq 25 \text{ kg/m}^2$ ), |                          |           | the decisions, users of  |                 |
|      | ,     |      |    | had recently                |                          |           | a weight loss            |                 |
|      |       |      |    | enrolled on the             |                          |           | programme make.          |                 |
|      |       |      |    | scheme, were                |                          |           | F8                       |                 |
|      |       |      |    | not pregnant or             |                          |           |                          |                 |
|      |       |      |    | nursing and                 |                          |           |                          |                 |
|      |       |      |    | were absent of              |                          |           |                          |                 |
|      |       |      |    | clinical co-                |                          |           |                          |                 |
|      |       |      |    | morbidities.                |                          |           |                          |                 |
| Roux | Mark  | 1    | +  | The study                   | Aim:                     | 10-, 20-, | A societal perspective   | The             |
| 2004 | OV    | 1    |    | population                  | To assess the cost-      | 30- and   | was used.                | information     |
| [5]  | mode  |      |    | included                    | effectiveness of         | 40-year   | was asea.                | provided is     |
| [2]  | 1     |      |    | adults, further             | population wide          | time      | PA access intervention   | taken from an   |
|      | •     |      |    | details of the              | strategies to promote    | horizons  | was the most effective.  | abstract        |
|      |       |      |    | study                       | PA in adults.            | were      | was the most effective.  | presentation at |
|      |       |      |    | population                  | 171 in addits.           | used.     | Social support was the   | NAASO's         |
|      |       |      |    | were not                    | A Markov model was       | uscu.     | most cost-effective      | 2004 annual     |
|      |       |      |    | provided.                   | developed to estimate    |           | intervention at          | meeting.        |
|      |       |      |    | provided.                   | the costs, health gains  |           | US\$9,000 per QALY,      | meeting.        |
|      |       |      |    |                             | and cost-effectiveness.  |           | assuming a 40-year       |                 |
|      |       |      |    |                             | and cost-effectiveness.  |           | time horizon.            |                 |
|      |       |      |    |                             | Form mulation hoolth     |           | time norizon.            |                 |
|      |       |      |    |                             | Four public health       |           | A 11 D A s sees as a set |                 |
|      |       |      |    |                             | strategies that had been |           | All PAs were cost-       |                 |
|      |       |      |    |                             | strongly recommended     |           | effective (ranging from  |                 |
|      |       |      |    |                             | by the US Task Force     |           | US\$9,000 to             |                 |
|      |       |      |    |                             | for Preventative         |           | US\$30,000 per           |                 |
|      |       |      |    |                             | Services were            |           | QALY).                   |                 |
|      |       |      |    |                             | investigated. Further    |           | TOTAL TOTAL              |                 |
|      |       |      |    |                             | details of the           |           | The results were         |                 |
|      |       |      |    |                             | interventions were not   |           | sensitive to             |                 |
|      |       |      |    |                             | provided.                |           | intervention costs and   |                 |
|      |       |      |    |                             |                          |           | efficacy and analytic    |                 |

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|-------|---------|-------|---|---------------|--------------------------|---------|-------------------------|-----------------|
|       |         |       |   |               | The efficacy estimates   |         | time horizon.           |                 |
|       |         |       |   |               | were obtained from       |         |                         |                 |
|       |         |       |   |               | RCTs. A systematic       |         |                         |                 |
|       |         |       |   |               | review of disease        |         |                         |                 |
|       |         |       |   |               | burden by exercise       |         |                         |                 |
|       |         |       |   |               | status was used to       |         |                         |                 |
|       |         |       |   |               | obtain the relative risk |         |                         |                 |
|       |         |       |   |               | of five diseases         |         |                         |                 |
|       |         |       |   |               | (coronary heart disease, |         |                         |                 |
|       |         |       |   |               | ischaemic stroke,        |         |                         |                 |
|       |         |       |   |               | colorectal cancer,       |         |                         |                 |
|       |         |       |   |               | breast cancer and type   |         |                         |                 |
|       |         |       |   |               | 2 diabetes), for         |         |                         |                 |
|       |         |       |   |               | inactive, regularly      |         |                         |                 |
|       |         |       |   |               | active and sufficiency   |         |                         |                 |
|       |         |       |   |               | active PA levels.        |         |                         |                 |
|       |         |       |   |               |                          |         |                         |                 |
|       |         |       |   |               | The Quality of Well      |         |                         |                 |
|       |         |       |   |               | Being Scale was used     |         |                         |                 |
|       |         |       |   |               | for data on quality of   |         |                         |                 |
|       |         |       |   |               | life.                    |         |                         |                 |
| Wang  | RCT     | 1     | + | 310 female    | Aim:                     | 2 years | A societal perspective  | The authors     |
| 2003  |         |       |   | middle school | To investigate the       | (fall   | was used in the study.  | note that there |
| [6]   |         |       |   | children in   | effect of Planet Health, | 1995 to | was assum in one staay. | is concern      |
| [~]   |         |       |   | Boston, MA,   | a school-based           | spring  | Planet health would     | about possible  |
|       |         |       |   | USA,          | intervention was         | 1997)   | prevent an estimated    | bias in         |
|       |         |       |   | metropolitan  | designed to reduce       | 1551)   | 1.9% of the female      | estimates of    |
|       |         |       |   | area.         | obesity in middle-       |         | students from           | the probability |
|       |         |       |   | arca.         | school children.         |         | becoming overweight     | of an           |
|       |         |       |   |               | school children.         |         | adults.                 | overweight      |
|       |         |       |   |               | Children were            |         | aduits.                 | young woman     |
|       |         |       |   |               | randomly assigned to     |         | For the five schools in | 21 to 29 years  |
|       |         |       |   |               | the intervention group   |         | the study the total     | of age being    |
|       |         |       |   |               | - 1                      |         | intervention cost over  |                 |
|       |         |       |   |               | or a control group.      |         |                         | overweight by   |
|       |         |       |   |               |                          |         | the 2 years, was        | 40 years old    |
|       |         |       |   |               |                          |         | US\$33,677. This is     | and the         |
|       |         |       |   |               |                          |         | US\$14 per student.     | probability of  |
|       |         |       |   |               |                          |         | 4.1.OAT.W1.1.1          | a non-          |
|       |         |       |   |               |                          |         | 4.1 QALYs would be      | overweight      |
|       |         |       |   |               |                          |         | saved; society would    | young woman     |
|       |         |       |   |               |                          |         | save an estimated       | aged 21 to      |

| DRAF | T FOR F | FIRST | CO | NSULTATION |  |                         |                 |
|------|---------|-------|----|------------|--|-------------------------|-----------------|
|      |         |       |    |            |  | US\$15,887 in medical   | 29 years being  |
|      |         |       |    |            |  | costs and US\$25,104    | overweight by   |
|      |         |       |    |            |  | in productivity costs.  | 40 years old.   |
|      |         |       |    |            |  |                         | This is due to  |
|      |         |       |    |            |  | The gives US\$4,305     | the             |
|      |         |       |    |            |  | per QALY saved and a    | 'elimination of |
|      |         |       |    |            |  | net saving of US\$7,313 | women with      |
|      |         |       |    |            |  | to society.             | missing data'.  |
|      |         |       |    |            |  |                         |                 |
|      |         |       |    |            |  | Sensitivity analysis    | Limitation of   |
|      |         |       |    |            |  | showed that the cost-   | the model:      |
|      |         |       |    |            |  | effectiveness of the    | Intervention    |
|      |         |       |    |            |  | programme was           | costs were      |
|      |         |       |    |            |  | relatively unaffected   | estimated and   |
|      |         |       |    |            |  | by changes to most      | not             |
|      |         |       |    |            |  | parameters but was      | prospectively   |
|      |         |       |    |            |  | more sensitive to       | measured;       |
|      |         |       |    |            |  | changes in the discount | modelling was   |
|      |         |       |    |            |  | rate.                   | used for the    |
|      |         |       |    |            |  |                         | number of       |
|      |         |       |    |            |  |                         | adulthood       |
|      |         |       |    |            |  |                         | overweight      |
|      |         |       |    |            |  |                         | cases           |
|      |         |       |    |            |  |                         | prevented;      |
|      |         |       |    |            |  |                         | only a single   |
|      |         |       |    |            |  |                         | data source     |
|      |         |       |    |            |  |                         | was available   |
|      |         |       |    |            |  |                         | for most of the |
|      |         |       |    |            |  |                         | parameters;     |
|      |         |       |    |            |  |                         | overweight      |
|      |         |       |    |            |  |                         | relapses were   |
|      |         |       |    |            |  |                         | not             |
|      |         |       |    |            |  |                         | considered;     |
|      |         |       |    |            |  |                         | intervention    |
|      |         |       |    |            |  |                         | effectiveness   |
|      |         |       |    |            |  |                         | was based on    |
|      |         |       |    |            |  |                         | 310 female      |
|      |         |       |    |            |  |                         | students who    |
|      |         |       |    |            |  |                         | were included   |
|      |         |       |    |            |  |                         | in the baseline |
|      |         |       |    |            |  |                         | and follow-up   |

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|----------------------|------|-------|----|--|--|--|--|---|
|                      |      |       |    |  |  |  |  | analysis but costs were estimated on all 1203 students; not all direct and indirect costs were included, i.e. medical costs associated with obesity during adolescence were not included. |
| Wang et al. 2004 [7] | CCT  | 2     | +  | The study population included 3rd graders in Augusta, GA, USA, were included in the study. | Aim: To investigate the costeffectiveness of an after school obesity prevention programme called MCG FitKid Project. Nine elementary schools were included in the study. | 3 years. Only the first year results are presented here. | A societal perspective was adopted.  The cost of the programme was US\$546 per student (US\$174,070 per programme).  There was a 0.5% (p = 0.07) body fat reduction in the intervention students.  When comparing the intervention to the control, there was a saving of US\$451 per student in costs of usual after-school care.  The cost effectiveness ratio was US\$190 per 1% body-fat reduction. | The information provided is taken from an abstract presentation at NAASO's 2004 annual meeting.   |

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| DRAFTFORF        | TIKST CO   | For students who attended at least 40% and 80% of the sessions, the programme resulted in an average 0.8% (p < 0.01) and 1.2% (p < 0.01) body-fat reduction respectively. This was achieved at a cost of US\$634 and US\$839 per student in after-school care costs, resulting in per capita net savings of US\$88 and US\$293 respectively. |
| Cost-effectivene | ess summai |  |

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