

## Overweight and obesity management

December 2024

### Overview

This guideline covers the prevention and management of overweight, obesity and central adiposity in children, young people and adults. It brings together and updates all NICE's previous guidelines on overweight and obesity. For more details see <u>update information</u>. It does not cover pregnancy.

### Who is it for?

- Healthcare professionals
- Commissioners and providers
- People who work in, and are responsible for providing, services in the wider public, private, voluntary and community sectors
- Childcare settings, nurseries and schools
- Employers
- People using services, their families and carers, and the public
- Members of the public, particularly those living with overweight or obesity, their families and carers

## General principles of care

People have the right to be involved in discussions and make informed decisions about their care, as described in <a href="NICE's information on making decisions">NICE's information on making decisions about your care.</a>

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Health and social care professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity.
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- People's experience in adult social care services
- Service user experience in adult mental health
- Shared decision making
- · Transition from children's to adults' services.

### Read this guideline alongside:

- NICE guidelines on behaviour change: digital and mobile health interventions, behaviour change: individual approaches, eating disorders, and looked after children and young people
- the <u>National Obesity Audit</u>
- Public Health England's Whole systems approach to obesity and weight management interventions: standard evaluation framework
- the UK Chief Medical Officers' physical activity guidelines
- the NHS Eatwell guide.
- the <u>UK government's childhood obesity: a plan for action</u> and <u>Childhood</u> obesity: applying All Our Health guidance.

## 1.1 General principles for all ages

See the visual summary on the principles of care.

### Discussion, communication and follow up

1.1.1 Before or during any discussions, think about the wider determinants and the context of overweight and obesity. These include:

- general health and current comorbidities
- weight-related comorbidities, including family history of weightrelated comorbidities
- weight history and previous experiences of managing overweight or obesity
- · experiences of weight stigma
- impact of bullying and adverse childhood experiences
- practicality of addressing weight and readiness to engage with change
- developmental stage (for children and young people)
- ethnicity
- language
- socioeconomic status and financial constraints
- personal and family circumstances, including living arrangements and major life events
- recent pregnancy
- how any medicines the person is taking may affect their weight or appetite
- current or previous experiences of eating disorders or disordered eating
- psychosocial considerations (for example, depression, anxiety or sense of self-esteem or self-perception)
- physical disabilities
- neurodevelopmental conditions and special educational needs and disabilities (SEND). [2024]
- 1.1.2 Before discussing overweight, obesity or central adiposity, take into account:
  - the context of the discussion or appointment and whether it is appropriate or important to discuss weight or take measurements on this occasion
  - that the subject of weight may have been raised many times before

- your own feelings and sensitivities about weight
- that people can be affected by an eating disorder at any weight (see NICE's guideline on eating disorders)
- cultural factors that may be relevant.

For discussions with children and their families or carers, also:

- think about the vulnerability of young people to eating disorders,
   and the impact of measuring their weight
- tailor conversations with the child or young person to their age, maturity and level of understanding, so that they are able to engage with the discussion and be involved with the decisions about their healthcare. [2024]
- 1.1.3 Ask permission to discuss overweight, obesity or central adiposity. If they do not wish to discuss it further on this occasion, respect the person's choice (and that of their family or carer, if relevant) and either explore the reason sensitively or delay discussion until an appropriate time. [2024]
- 1.1.4 Record the outcome of the discussion to ensure that subsequent healthcare professionals are aware that the matter has been raised, and know about the person's views and any actions already taken to manage overweight or obesity. [2024]
- 1.1.5 Ensure that all discussions linked to overweight, obesity and central adiposity are conducted in a sensitive, non-judgemental and person-centred manner by:
  - using non-stigmatising language (for example, 'living with overweight')
  - identifying and exploring the person's own preferred terms (and those of their family or carers, if relevant)
  - focusing on improvements in health and wellbeing rather than simply talking about weight (for example, using terms like

- 'healthier weight' and 'improved health' may be more acceptable than 'preventing obesity' for some people)
- staying positive, supportive and solution-based
- taking into account the person's thoughts, views and cultural,
   religious or spiritual beliefs (and those of their family or carers, if
   relevant) about overweight and obesity management
- being mindful of the factors that prevent or restrict weight loss (for example, some medicines)
- taking into account the determinants and context of overweight and obesity (see recommendation 1.1.1)
- for children and young people, using accurate facts and figures, for example growth charts, to visually show their weight and BMI centile. [2024]
- 1.1.6 Ensure that all written, visual and verbal communications with people living with overweight and obesity use non-stigmatising language and images and is tailored to any particular needs, such as Easy Read literature. Resources and advice that could help conduct conversations in a sensitive and positive way include:
  - NHS England's healthier weight competency framework
  - Office for Health Improvement and Disparities' healthy weight coaching on how to have sensitive conversations about weight and health with adults
  - Public Health England's guide to brief interventions with adults:
     let's talk about weight (which provides practical advice and tools to support health and care professionals make brief interventions in weight management for adults)
  - Public Health England's guide to conversations about weight management with children and families: let's talk about weight (which highlights a focus for many children and young people on weight maintenance and growing into a healthier weight, rather than weight loss)

- National Child Measurement Programme conversation
   <u>framework</u> for talking to parents (which can also be used for discussions about weight outside the programme)
- obesity image banks [2024]

### **Equipment**

- 1.1.7 Equip specialist settings for treating people who are living with obesity with, for example, suitable seating and adequate weighing and monitoring equipment. [2006]
- 1.1.8 Ensure hospitals have access to suitable equipment such as larger scanners and beds when providing general care for people who are living with severe obesity. [2006]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on general principles of care for all ages</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review D: identifying overweight and obesity in children, young people and adults.

## 1.2 Additional principles for children and young people

See also the <u>sections on identification</u>, <u>assessment and referral in children</u> and <u>young people</u> and <u>behavioural overweight and obesity management</u> interventions for children and <u>young people</u>.

- 1.2.1 Aim to create a supportive environment at home and in other settings, such as schools, that helps a child or young person and their family or carers make behavioural changes. [2006, amended 2014]
- 1.2.2 Ensure that interventions for children and young people address behaviours within the family and in social settings that affect

- weight, including the wider determinants and context of overweight and obesity (see <u>recommendation 1.1.1</u>). [2006, amended 2014]
- 1.2.3 Encourage families or carers to take the main responsibility for behavioural changes in children and young people, especially children under 12. Take into account the age and maturity of the child or young person, and their preferences and those of their families or carers. [2024]
- 1.2.4 If there is concern that obesity or weight or weight-related comorbidities pose a significant threat to the child or young person's health and wellbeing (see the section in this guideline on classifying overweight, obesity and central adiposity in children and young people):
  - refer to emotional health and wellbeing support and services
  - refer to specialist management for any other comorbidities.

Use clinical judgement to decide when it is necessary to intervene as part of the duty of care to the child or young person. See the recommendations on advocacy and support in NICE's guideline on babies, children and young people's experience of healthcare and our information on making decisions using NICE guidelines for more information about safeguarding. [2024]

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Full details of the evidence and the committee's discussion are in <u>evidence</u> review E: increasing uptake of weight management services in children, young people and adults.

## Preventing overweight, obesity and central adiposity

# 1.3 Information and support to help people maintain a healthier weight

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Read this guideline alongside:

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- the <u>National Obesity Audit</u>
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### **Encouraging people to make changes**

See also the <u>sections on physical activity approaches</u>, <u>dietary approaches</u> and <u>raising public awareness</u>, <u>NICE's guidelines on walking and cycling</u> and <u>eating disorders</u>, and <u>NHS advice on meat in your diet</u>, <u>recommended levels of alcohol consumption</u> and <u>calories in alcohol</u>.

- 1.3.1 Advise people to avoid extreme physical activity or dietary behaviours (such as obsessively exercising or cutting out all carbohydrates in the long term) that are difficult to sustain and may not be accompanied by wider health benefits. [2015]
- 1.3.2 Encourage everyone to identify perceptions, behaviours or situations that may undermine their efforts to maintain a healthier weight or prevent excess weight gain in the long term. These may include:
  - drinking sugary or alcoholic drinks
  - underestimating how much food is consumed
  - overestimating how much physical activity is being done
  - overeating after being physically active
  - planning and taking part in social events that focus on food
  - using 'sweet treats' as a reward or emotional comfort or giving them regularly as gifts

- difficulties with consistently following physical activity and healthy eating plans during weekends and holidays, or after illness. [2015, amended 2024]
- 1.3.3 Encourage behaviours that may help people to keep an eye on their weight or associated behaviours, but be aware of risks for people who have or might develop disordered eating. For adults, behaviours may include:
  - Checking their measurements regularly, for example weighing themselves once a week and being aware of their waist circumference (see the <u>section on how to take measurements in</u> <u>adults</u>).
  - Checking their physical activity level (for example, by making a note of activities, or using an activity tracker or an app to track physical activity). (See <u>recommendation 7 on walking: individual</u> <u>support, in NICE's guideline on walking and cycling.)</u>
  - Checking their food and drink intake (for example, by making a note of meals and snacks, using an app to track intake, or checking food and drink labels). For apps that may be helpful, see NHS better health advice. [2015, amended 2024]
- 1.3.4 Give sources of accurate information (such as the <a href="NHS Better">NHS Better</a>
  <a href="Health">Health</a>) and details of local services to people who have any concerns about their or their family's diet, activity levels or weight. [2015, amended 2024]</a>

# Communicating the benefits of healthy behaviours and gradual improvements

- 1.3.5 Explain that the physical and mental health benefits of being more physically active and improving dietary behaviours are not limited to maintaining a healthier weight. They also include, for example:
  - improved mental wellbeing

- enjoyment from physical activities, including the social aspects of shared activities
- reduced risk of developing diseases associated with excess weight such as heart disease, hypertension, liver disease, osteoarthritis, stroke, type 2 diabetes, some cancers, and reduced risk of poor COVID-19 outcomes
- the health benefits of losing weight before pregnancy
- reduced breathlessness, improved fitness and other benefits
   from increased physical activity that are independent of weight
- lower blood cholesterol, improved oral health and other benefits from improved dietary behaviours that are independent of weight. [2015]
- 1.3.6 Explain that even small, gradual improvements to physical activity and dietary intake are likely to be helpful. Emphasise that:
  - Improving dietary intake and being physically active are as important for people who are currently a <u>healthy weight</u> as for people who are living with overweight.
  - Weight gain in adulthood is not inevitable. It is possible to avoid gaining weight with age by being physically active and eating a diet based on foods and drinks with a lower energy density.
  - No single physical activity, food or drink will maintain a healthy
     weight a combination of actions is needed. [2015]

## Advice for family and carers of children and young people

- 1.3.7 Encourage family, carers and others regularly caring for children and young people to:
  - Encourage and support them to be active at every opportunity (such as active play, travel, sport or leisure activities).
  - Eat meals with them and act as a positive role model.
  - Avoid using food as a reward or to manage behaviour.
  - Encourage repeated exposure to vegetables to increase consumption.

- Maintain good oral health, see <u>NHS information on taking care of</u> your teeth and gums.
- Help and encourage them to get enough sleep. Explain that lack
  of sleep may increase the risk of excess weight gain in children
  and young people. Give information on age-specific
  recommendations on sleep (see <a href="NHS">NHS</a> information on sleep and
  on <a href="sleep problems">sleep problems</a> in children).

(See also the <u>Department of Health and Social Care's physical</u> activity guidelines for disabled children and disabled young people, <u>NICE's guideline on physical activity for children and young people</u>, <u>NHS advice on fussy eaters</u> and the <u>Scientific Advisory Committee on Nutrition report on feeding young children aged 1 to 5 years.</u>) [2015, amended 2024]

### Tailoring messages for specific groups

1.3.8 Ensure information is clear, consistent, specific, non-judgemental to avoid weight stigma and tailored to the person's needs. See also the recommendations on discussion, communication and follow up in this guideline and the recommendation on conveying messages to the local population in NICE's guideline on type 2 diabetes prevention. [2015]

## 1.4 Healthcare professionals

### All settings

- 1.4.1 Focus interventions to increase physical activity on activities that:
  - fit easily into people's everyday life (such as walking)
  - are tailored to people's individual preferences and circumstances
  - aim to improve people's belief in their ability to change (for example, by motivational interviewing and discussing positive effects).

Give ongoing support (including appropriate written materials) in person or by phone, letter, email or online and social media resources. [2006]

- 1.4.2 Offer individually tailored, multicomponent interventions and ongoing support to improve diet (and reduce energy intake). For example, interventions that include dietary modification, targeted advice, family involvement and goal setting. [2006]
- 1.4.3 Ensure that interventions to prevent obesity, including promotional, awareness-raising activities, are part of a long-term, multicomponent intervention rather than one-off activities, and are accompanied by targeted follow up with different population groups. [2006]
- 1.4.4 At times when weight gain is more likely, such as after pregnancy, around menopause and when stopping smoking, ask permission to discuss weight, dietary intake and activity. If they agree, give them:
  - information on services that provide advice on prevention and management of overweight and obesity
  - general advice on long-term overweight and obesity management, in particular encouraging increased physical activity. [2006]
- 1.4.5 Actively involve family and carers in all actions aimed at preventing excess weight gain, optimising nutritional intake and increasing activity levels in children and young people. [2006]

### **Community settings**

1.4.6 Support and promote community schemes and facilities that improve access to physical activity, such as walking or cycling routes, combined with tailored information, based on an audit of local needs. [2006]

- 1.4.7 Support and promote behavioural change programmes along with tailored advice to help people become more active, for example by walking or cycling instead of driving or taking the bus. [2006]
- 1.4.8 Offer ongoing support from an appropriately trained healthcare professional to families of children and young people identified as being at high risk of obesity, such as children with at least 1 parent living with obesity. Think about individual as well as family-based interventions, depending on the age and maturity of the child.
  [2006]

### Preschool, childcare and family settings

- 1.4.9 Ensure that any programme offered to prevent obesity in preschool, childcare or family settings includes a range of components (rather than focusing on parental education alone) to promote healthy eating and physical activity. These could include:
  - interactive cookery demonstrations
  - videos and group discussions on practical issues such as meal planning and shopping for food and drink
  - interactive physical activity sessions
  - videos and group discussions on practical issues such as ideas for physical activities opportunities for active play, safety and local facilities. [2006]
- 1.4.10 Ensure that family programmes offered to prevent obesity, improve dietary intake or increase physical activity levels provide ongoing, tailored support, incorporate a range of behaviour-change techniques and use non-stigmatising language and images (see <a href="NICE's guidance on behaviour change: individual approaches">NICE's guidance on behaviour change: individual approaches</a>), and have a clear aim to improve health. [2006, amended 2024]

## 1.5 Local or regional strategic partnerships

# Managers and budget holders in local or regional strategic partnerships

- 1.5.1 Ensure a whole-systems approach to preventing and managing obesity is a priority at both strategic and delivery levels in all health and social care and community settings. Facilitate links between organisations to ensure that local public policies improve access to healthy foods and opportunities for physical activity and allocate dedicated resources for action to activities that:
  - address both physical activity and diet
  - use effective methods for encouraging and enabling behaviour change
  - be targeted and tailored, using local knowledge (such as the Joint Strategic Needs Assessment or local surveys) to meet the needs of the population, recognising that some groups may need more support than others. [2006 and 2015]
- 1.5.2 Set an example as employers by developing policies to prevent and manage obesity in line with existing guidance and (in England) the local overweight and obesity strategy. In particular:
  - promote healthy food and drink choices in on-site catering (for example by signs, posters, pricing and positioning of products)
  - establish policies, facilities and information to promote physical activity, for example, through travel plans, by providing showers and secure cycle parking and by using signposting and improved décor to encourage stair use. [2006]
- 1.5.3 Ensure that systems are in place in primary care to implement the local overweight and obesity strategy. Enable health professionals with specific training, including public health practitioners working on their own or as part of multidisciplinary teams, to provide interventions to prevent and manage obesity. [2006]

- 1.5.4 Address barriers to healthcare professionals providing support and advice (such as internalised and societal weight stigma), particularly their concerns about the effectiveness of interventions, people's receptiveness and ability to change, and the impact of advice on relationships with the person. [2006, amended 2024]
- 1.5.5 Engage with the local community to identify environmental barriers to physical activity and healthy eating. This includes planning, transport and leisure services and should involve:
  - an audit, with the full range of partners including local or regional strategic partnerships, residents, businesses and institutions
  - assessing (ideally by doing a health impact assessment):
    - how policies affect local people's opportunities to be physically active and eat a healthy diet
    - any barriers that may affect some groups of people differently, for example, because of their age, sex, socioeconomic status, ethnicity, religion, disability or weight stigma.

Address any barriers identified in this way. [2006, amended 2024]

- 1.5.6 Work with all parts of local or regional strategic partnerships to create and manage more safe spaces for incidental and planned physical activity. Address as a priority any concerns about safety, crime and inclusion, by:
  - providing facilities such as cycling and walking routes, cycle
     parking, area maps and safe play areas
  - making streets safer and reducing pollution, through measures such as traffic calming, congestion charging, pedestrian crossings, cycle routes, lighting and walking schemes
  - ensuring buildings and spaces are designed to encourage people to be more physically active (for example, through positioning and signing of stairs, entrances and walkways)

- considering in particular people who need tailored information and support, especially groups who are vulnerable, or less likely to be active (this could include people with <u>neurodevelopmental</u> <u>conditions</u> or learning disabilities). [2006]
- 1.5.7 Provide tailored advice from local and transport authorities, such as personalised travel plans, to increase active travel. [2006]
- 1.5.8 Encourage, through the whole-systems approach, all local shops, supermarkets and caterers to promote healthy food and drink choices, for example by signs, posters, pricing and positioning of products, in line with existing good practice guidance and (in England) with the local overweight and obesity strategy. [2006]
- 1.5.9 Ensure that all community programmes to prevent overweight and obesity, increase activity levels and improve diet (and reduce energy intake) address the concerns of participants from the outset. These might include the availability of services and the cost of changing behaviour, an expectation that healthier foods do not taste as good, dangers associated with walking and cycling and confusion over mixed messages in the media about weight, diet and activity. Tailor messages to any local concerns and involve those with lived experience of overweight or obesity in developing and updating programmes. [2006, amended 2024]
- 1.5.10 Include awareness-raising promotional activities in community-based interventions, but ensure they are part of a longer-term, multicomponent intervention rather than one-off activities. [2006]

### 1.6 Schools, nurseries and childcare facilities

# All early-years settings, nurseries, other childcare facilities and schools

1.6.1 Ensure that improving the nutrition and activity levels of children and young people is a priority for action in all early-years settings, nurseries, other childcare facilities and schools to help prevent

- excess weight gain. Use a whole-school approach to develop lifelong healthy eating, physical activity practices, emotional wellbeing, self-esteem and positive body image. [2024]
- 1.6.2 Involve families and carers in any action aimed at preventing excess weight gain, optimising nutritional intake or increasing activity levels in children in early-years settings, nurseries, other childcare facilities and schools. For example, through newsletters, and information about lunch menus and after-school activities.

  [2024]
- 1.6.3 Nurseries and other childcare facilities should:
  - minimise sedentary activities during play time and provide regular opportunities for enjoyable active play and structured physical activity sessions
  - adapt activities for children with <u>special educational needs and</u> <u>disabilities</u> (SEND)
  - implement the <u>Department for Education's Early years</u>
     <u>foundation stage statutory framework</u> and <u>Public Health</u>
     <u>England's guidance on early years: supporting healthy weight</u>
     and nutrition
  - follow government guidance on healthier food and drink provision
  - follow advice in the <u>Scientific Advisory Committee on Nutrition</u>
     report: feeding young children aged 1 to 5 years, including being
     aware that larger portion sizes of snacks and meals are
     associated with higher food and energy intakes
  - adapt catering choices to accommodate individual dietary needs, cultural preferences and beliefs (for examples, see the culturally adapted <u>African and Caribbean Eatwell guide</u> and <u>South Asian</u> <u>Eatwell guide</u>) while maintaining nutritional standards
  - encourage the use of non-food-based rewards. [2024]

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- 1.6.4 Ensure that children and young people in early-years settings, nurseries, other childcare facilities and schools eat regular, healthy meals (including packed lunches), drinks and snacks in a pleasant, sociable and inclusive environment free from other distractions (such as screens). Ensure that children and young people are given adequate time to finish their meals. [2024]
- 1.6.5 Supervise children at mealtimes and have staff eat with the children, if possible. For early-years settings, see the <u>Department for Education's early-years foundation stage statutory framework</u>.
  [2024]
- 1.6.6 Implement the <u>Department for Education's school food standards</u>

  <u>practical guide</u> and <u>Public Health England's example menus for</u>

  <u>early years settings in England.</u> [2024]
- 1.6.7 When planning school-based interventions to prevent overweight and obesity, take into account:
  - the evidence for the intervention
  - the views of children and young people
  - any differences in preferences because of sex, culture or belief
  - sensory needs
  - ways to overcome potential barriers (such as cost or possible preconceptions children may have about the taste of healthier foods)
  - the child or young person's school healthcare plan (if they have one). [2024]
- 1.6.8 Staff delivering physical education, sport and other physical activity in schools should:
  - promote a range of activities that children and young people enjoy and can take part in outside school and into adulthood

- give children and young people the motivation and confidence to take part in physical activities and understand their value (sometimes called physical literacy)
- follow the <u>UK Chief Medical Officers' physical activity guidelines</u>
   and the <u>Department of Health and Social Care's physical activity</u>
   guidelines for disabled children and disabled young people
- adapt activities for children and young people with SEND. [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on all early-years settings</u>, <u>nurseries</u>, <u>other childcare facilities</u> and schools.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review H: effectiveness of healthy living programmes in preventing overweight and obesity in children and young people.

### Headteachers and chairs of governors of schools

- 1.6.9 In collaboration with parents and pupils, assess the whole school environment and ensure that the ethos of all school policies helps children and young people to maintain a healthier weight, eat a healthy diet and be physically active, in line with existing standards and guidance. This includes policies relating to:
  - building layout and recreational spaces
  - catering (including vending machines) and the food and drink pupils bring into school for themselves or others
  - rewards or incentives (policies should cover avoiding ones based on food)
  - the taught curriculum (including PE)
  - school travel plans and provision for cycling
  - bullying (including addressing bullying related to weight). [2006]

- 1.6.10 Ensure that teaching, support and catering staff understand the importance of healthy-school policies and how to support their implementation. [2006]
- 1.6.11 Ensure interventions are sustained, multicomponent and address the whole school, including after-school clubs and other activities.
   Short-term interventions and one-off events are insufficient on their own and should be part of a long-term integrated programme.
   [2006]

## 1.7 Workplaces

- 1.7.1 Occupational health staff and public health practitioners in workplaces should establish partnerships with local businesses to support the implementation of workplace programmes to prevent and manage overweight and obesity. [2006]
- 1.7.2 All workplaces, particularly large organisations such as the NHS and local authorities, should address preventing and managing overweight and obesity, because of the considerable impact on the health of the workforce and associated costs to business.
  Collaborate with local or regional strategic partnerships and ensure that action is in line with the local overweight and obesity strategy (in England). [2006]
- 1.7.3 Provide opportunities for staff to eat a healthy diet and be more physically active, through:
  - active and continuous promotion of healthy choices in restaurants, hospitality, vending machines and shops for staff and clients, in line with <u>Public Health England guidance on</u> <u>healthier and more sustainable catering</u>; use tailored educational and promotional programmes to support this, which could include behavioural intervention or environmental changes (for example, food labelling or changes to availability)

- working practices and policies, such as active travel policies for staff and visitors
- a supportive physical environment, such as improvements to stairwells and providing showers and secure cycle parking
- recreational opportunities, such as supporting out-of-hours social activities, lunchtime walks and use of local leisure facilities.
   [2006]
- 1.7.4 Ensure incentive schemes (such as policies on travel expenses, the price of food and drinks sold in the workplace and contributions to gym membership) that are used in a workplace are sustained and part of a wider programme to support staff in managing weight, improving dietary intake and increasing activity levels. [2006]
- 1.7.5 Ensure that any health checks provided for staff offer an opportunity to discuss weight, dietary intake and activity, and provide appropriate ongoing support. [2006]

# Identifying and assessing overweight, obesity and central adiposity

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# 1.8 Specific advice for people from ethnic minority backgrounds

- 1.8.1 Ensure healthcare professionals are aware that people from some ethnic minority backgrounds are prone to central adiposity and so are at an increased risk of chronic weight-related health conditions at a lower BMI. [2024]
- 1.8.2 Ensure people from these ethnic minority backgrounds (and the families and carers of children and young people from these backgrounds) are aware that they are prone to central adiposity

and so are at an increased risk of chronic weight-related health conditions at a lower BMI. Explain these risks in an inclusive and non-stigmatising way. [2024]

1.8.3 Use existing community networks for people from ethnic minority backgrounds to share information on the increased risks these groups face at a lower BMI. See <a href="recommendation 1.9.11">recommendation 1.9.11</a> for information about these risks. See <a href="NICE's guideline on community engagement: improving health and wellbeing and reducing health inequalities">Improving health and wellbeing and reducing health inequalities</a>. [2024]

See also the <u>section on classifying overweight</u>, <u>obesity and central adiposity</u> in adults.

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on specific advice for people from ethnic minority</u> backgrounds.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review D: identifying overweight and obesity in children, young people and adults.

# 1.9 Identifying and assessing overweight and obesity in adults

#### When to take and record measurements in adults

- 1.9.1 Avoid attributing all symptoms to overweight or obesity (diagnostic overshadowing). If the person is presenting with another health problem or condition (such as hip pain), address this problem or condition first before deciding whether it is appropriate to ask permission to discuss weight. [2024]
- 1.9.2 Ask for permission each time before discussing overweight, obesity or central adiposity and before taking measurements. See the

section on discussion, communication and follow up for steps to think about before discussing overweight, obesity and central adiposity and how to ensure discussions are sensitive and non-judgemental. [2024]

- 1.9.3 If permission is given, use suitable opportunities to measure and record a person's:
  - height
  - weight
  - waist circumference in people with BMI below 35 kg/m<sup>2</sup> so that waist-to-height ratio can be calculated.

Opportunities could include registration with a GP, routine consultation for long-term conditions, and other routine health checks. [2024]

1.9.4 Ensure that records are kept up to date and shared between providers, if possible and with permission, for people who have self-referred to overweight and obesity management interventions.

[2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on when to take and record measurements in adults.</u>

Full details of the evidence and the committee's discussion are in <u>evidence</u> review D: identifying overweight and obesity in children, young people and adults.

### How to take measurements in adults

- 1.9.5 Encourage adults with a BMI below 35 kg/m<sup>2</sup> to:
  - measure their own waist-to-height ratio to assess central adiposity

 seek advice and further clinical assessments (such as a cardiometabolic risk factor assessment) from a healthcare professional if the measurement indicates an increased health risk.

Explain to people that to accurately measure their waist and calculate their own waist-to-height ratio, they should follow the advice in box 1. [2022]

1.9.6 Direct people to resources that give advice on how to measure waist circumference and waist-to-height ratio, such as the video guide on the <a href="NHS obesity page">NHS obesity page</a>. See recommendations 1.9.10 and 1.9.11 in the <a href="section on classifying overweight">section on classifying overweight</a>, obesity and central adiposity in adults for how to interpret waist-to-height ratio. [2022]

# Box 1 Method for people to measure their own waist and calculate their waist-to-height ratio

### Measure

Find the bottom of the ribs and the top of the hips.

Wrap a tape measure around the waist midway between these points (this will be just above the belly button) and breathe out naturally before taking the measurement.

### Calculate

Measure waist circumference and height in the same units (either both in centimetres, or both in inches). If you know your height in feet and inches, convert it to inches (for example, 5 feet 7 inches is 67 inches).

Divide waist measurement by height measurement. For example:

- 38 inches divided by 67 inches = waist-to-height ratio of 0.57 or
- 96.5 cm divided by 170 cm = waist-to-height ratio of 0.57.

See also the <u>NHS obesity webpage</u> for more information and a video showing how to do this.

### Measures of overweight, obesity and central adiposity in adults

- 1.9.7 Use BMI as a practical measure of overweight and obesity.
  Interpret it with caution because it is not a direct measure of central adiposity. [2022]
- 1.9.8 In adults with BMI below 35 kg/m², measure and use their waist-to-height ratio, as well as their BMI, as a practical estimate of central adiposity and use these measurements to help to assess and predict health risks (for example, type 2 diabetes, hypertension or cardiovascular disease). [2022]
- 1.9.9 Do not use bioimpedance as a substitute for BMI as a measure of general adiposity in adults. [2006, amended 2014]

For a short explanation of why the committee made the 2022 recommendations and how they might affect practice, see the <u>rationale and impact section on how to take measurements and measures of overweight, obesity and central adiposity in adults.</u>

Full details of the evidence and the committee's discussion are in <u>evidence</u> review A: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in adults.

## Classifying overweight, obesity and central adiposity in adults

- 1.9.10 Classify the degree of overweight or obesity in adults as follows, if they are not in the groups covered by recommendation 1.9.11:
  - healthy weight: BMI 18.5 kg/m² to 24.9 kg/m²
  - overweight: BMI 25 kg/m<sup>2</sup> to 29.9 kg/m<sup>2</sup>
  - obesity class 1: BMI 30 kg/m² to 34.9 kg/m²
  - obesity class 2: BMI 35 kg/m<sup>2</sup> to 39.9 kg/m<sup>2</sup>

• obesity class 3: BMI 40 kg/m<sup>2</sup> or more.

Use clinical judgement when interpreting the healthy weight category because a person in this category may nevertheless have central adiposity. See <a href="Public Health England's guidance on obesity and weight management for people with learning disabilities">Public Health England's guidance on obesity and weight management for people with learning disabilities</a> for information on reasonable adjustments that may need to be made. <a href="Public Health England's guidance on obesity and weight management for people with learning disabilities">Public Health England's guidance on obesity and weight management for people with learning disabilities</a>

- 1.9.11 People with a South Asian, Chinese, other Asian, Middle Eastern, Black African or African–Caribbean background are prone to central adiposity and their cardiometabolic risk occurs at lower BMI, so use lower BMI thresholds as a practical measure of overweight and obesity:
  - overweight: BMI 23 kg/m² to 27.4 kg/m²
  - obesity: BMI 27.5 kg/m<sup>2</sup> or above.

For people in these groups, obesity classes 2 and 3 are usually identified by reducing the thresholds highlighted in recommendation 1.9.10 by 2.5 kg/m<sup>2</sup>. **[2022]** 

- 1.9.12 Interpret BMI with caution in adults with high muscle mass because it may be a less accurate measure of central adiposity in this group.

  [2022]
- 1.9.13 Interpret BMI with caution in people aged 65 and over, taking into account comorbidities, conditions that may affect functional capacity and the possible protective effect of having a slightly higher BMI when older. [2022]
- 1.9.14 Classify the degree of central adiposity based on waist-to-height ratio as follows:
  - healthy central adiposity: waist-to-height ratio 0.4 to 0.49, indicating no increased health risks

- increased central adiposity: waist-to-height ratio 0.5 to 0.59,
   indicating increased health risks
- high central adiposity: waist-to-height ratio 0.6 or more, indicating further increased health risks.

These classifications can be used for people with a BMI under 35 kg/m<sup>2</sup> of both sexes and all ethnicities, including adults with high muscle mass.

The health risks associated with higher levels of central adiposity include type 2 diabetes, hypertension and cardiovascular disease. [2022]

1.9.15 When talking to a person about their waist-to-height ratio, explain that they should try and keep their waist to less than half their height (so a waist-to-height ratio of under 0.5). [2022]

For a short explanation of why the committee made the 2022 recommendations and how they might affect practice, see the <u>rationale and impact section on classifying overweight, obesity and central adiposity in adults.</u>

Full details of the evidence and the committee's discussion are in <u>evidence</u> review A: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in adults.

### Assessing and managing comorbidities in adults

- 1.9.16 After the initial assessment of overweight or obesity, identify any comorbidities and other factors that may affect or be affected by the person's weight. Take into account the timing of the assessment, the degree of overweight or obesity, and the results of previous assessments. [2006]
- 1.9.17 Start managing comorbidities as soon as they are identified; do not wait until the person has lost weight. [2006]

# 1.10 Identifying and assessing overweight and obesity in children and young people

# When to take and record measurements in children and young people

- 1.10.1 Ensure there are processes to identify children and young people with overweight and obesity in addition to the National Child Measurement Programme and the Healthy Child Programme, particularly for children and young people outside the age groups covered by these programmes, and children not in mainstream state education. [2024]
- 1.10.2 Avoid attributing all symptoms to overweight or obesity (diagnostic overshadowing). If the child or young person is presenting with another health problem or condition (such as asthma) address this problem or condition first before deciding whether it is appropriate to ask permission to discuss weight. [2024]
- 1.10.3 Ask the family or carer and the child or young person for permission before discussing overweight, obesity or central adiposity and before taking measurements. (Also see NICE's guideline on babies, children and young people's experiences of healthcare.) [2024]
- 1.10.4 If there is a suitable opportunity, ask permission to record an up-to-date measure of a child or young person's height and weight.

  Potentially suitable opportunities could include routine health checks and non-urgent appointments (such as immunisation appointments). See the section on general principles of care for steps to take before discussing overweight and obesity and on ensuring discussions are sensitive and non-judgemental. [2024]
- 1.10.5 Consider measuring a child or young person's waist circumference and calculating waist-to-height ratio to predict health risks associated with central adiposity. See recommendation 1.10.10 on

using waist-to height ratio in children and young people and defining the degree of central adiposity, and see <u>box 1</u> for how to measure waist-to-height ratio. [2024]

1.10.6 Ensure that records are kept up to date, if possible, for children and young people and their family and carers who have self-referred to overweight and obesity management interventions. [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on when to take and record measurements in children and young people.</u>

Full details of the evidence and the committee's discussion are in <u>evidence</u> review D: identifying overweight and obesity in children, young people and adults.

# Measures of overweight, obesity and central adiposity in children and young people

- 1.10.7 Use BMI as a practical estimate of overweight and obesity in children and young people, and ensure that charts used are:
  - appropriate for children and young people and
  - adjusted for age and sex.

Interpret BMI with caution because it is not a direct measure of central adiposity. Use the NHS BMI healthy weight calculator, Royal College of Paediatrics and Child Health UK-World Health Organization (WHO) growth charts and BMI charts to plot and classify BMI centile. The childhood and puberty close monitoring (CPCM) form can also be used for continued BMI monitoring in children aged 2 and over, especially if puberty is either premature or delayed. Refer to special BMI growth charts for children and young people with Down's syndrome, if needed.

[2022, amended 2024]

1.10.8 Do not use bioimpedance as a substitute for BMI as a measure of general adiposity in children and young people. [2006, amended 2014]

For a short explanation of why the committee made the 2022 recommendation and how it might affect practice, see the <u>rationale and impact section on measures of overweight, obesity and central adiposity in children and young people.</u>

Full details of the evidence and the committee's discussion are in <u>evidence</u> review B: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in children and young people.

# Classifying overweight, obesity and central adiposity in children and young people

- 1.10.9 Classify the degree of overweight or obesity in children and young people using the following classifications:
  - overweight: BMI 91st centile + 1.34 standard deviations (SDs)
  - clinical obesity: BMI 98th centile + 2.05 SDs
  - severe obesity: BMI 99.6th centile + 2.68 SDs.

Use clinical judgement when interpreting BMI below the 91st centile, especially the healthy weight category in BMI charts because a child or young person in this category may nevertheless have central adiposity. [2022]

- 1.10.10 Classify the degree of central adiposity based on waist-to-height ratio in children and young people as follows:
  - healthy central adiposity: waist-to-height ratio 0.4 to 0.49, indicating no increased health risk
  - increased central adiposity: waist-to-height ratio 0.5 to 0.59,
     indicating increased health risk

 high central adiposity: waist-to-height ratio 0.6 or more, indicating further increased health risk.

These classifications can be used for children and young people of both sexes and all ethnicities.

The health risks associated with higher central adiposity levels include type 2 diabetes, hypertension and cardiovascular disease. [2022]

1.10.11 When talking to a child or young person, and their families and carers, explain that they should try and keep their waist to less than half their height (so a waist-to-height-ratio of under 0.5). [2022]

For a short explanation of why the committee made the 2022 recommendations and how they might affect practice, see the <u>rationale and impact section on classifying overweight</u>, obesity and central adiposity in <u>children and young people</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review B: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in children and young people.

# Assessing and managing comorbidities in children and young people

- 1.10.12 After the initial assessment of overweight or obesity, identify any comorbidities and other factors that may affect or be affected by the person's weight. Take into account the timing of the assessment, the degree of overweight or obesity, and the results of previous assessments. [2006]
- 1.10.13 Consider assessing comorbidities for children with a BMI at or above the 98th centile. **[2006]**

1.10.14 Start managing comorbidities as soon as they are identified; do not wait until the child or young person has lost weight. [2006]

## Discussing results and referral

People have the right to be involved in discussions and make informed decisions about their care, as described in <a href="NICE's information on making decisions about your care">NICE's information on making decisions about your care</a>.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Health and social care professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity.
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- People's experience in adult social care services
- Service user experience in adult mental health
- Shared decision making
- Transition from children's to adults' services.

### Read this guideline alongside:

- NICE guidelines on behaviour change: digital and mobile health interventions, behaviour change: individual approaches, eating disorders, and looked after children and young people
- the <u>National Obesity Audit</u>

- Public Health England's Whole systems approach to obesity and weight management interventions: standard evaluation framework
- the <u>UK Chief Medical Officers' physical activity guidelines</u>
- the NHS Eatwell guide.
- the <u>UK government's childhood obesity: a plan for action</u> and <u>Childhood</u>
   obesity: applying All Our Health guidance.

## 1.11 Discussing results and referral for adults

### Discussing the results with adults

- 1.11.1 Give adults information about the severity of their overweight or obesity and central adiposity and the impact this has on their risk of developing other long-term conditions (such as type 2 diabetes, cardiovascular disease, hypertension, dyslipidaemia, certain cancers and respiratory, musculoskeletal and other metabolic conditions such as non-alcoholic fatty liver disease). [2006, amended 2022]
- 1.11.2 Offer advice and discuss the possibility of referral to an overweight and obesity management service with the person, taking into account their individual needs and preferences (see also recommendation 1.11.6). [2024]
- 1.11.3 Address the drivers of overweight and obesity (for example, social context, mental health and wellbeing, and stigma) if possible. Refer as needed for assessment for any comorbidities, or to other services such as social care, physiotherapy, eating disorder services or the <a href="NHS diabetes prevention programme">NHS diabetes prevention programme</a>. [2024]
- 1.11.4 Discuss and agree realistic, personalised health goals (and any other related goals such as clothes fitting better, taking part in active play with children or grandchildren, finding it easier to breathe when walking or climbing stairs, being able to tie shoelaces or fasten a standard-length seatbelt). Include the importance and

wider benefits of making sustainable, long-term changes to dietary behaviours and increasing physical activity levels. [2024]

### Choosing interventions with adults

- 1.11.5 Ensure that healthcare professionals involved in identifying overweight, obesity and central adiposity are familiar with the local overweight and obesity management pathway, including:
  - local and national behavioural overweight and obesity management interventions and what these may involve
  - links to support services, such as mental health support
  - referral criteria and process for funded referrals
  - the capacity of services

and are aware of services that are available locally and nationally. [2024]

- 1.11.6 Discuss and agree the type and level of intervention with adults who:
  - are living with overweight or obesity or
  - have increased health risk based on their waist-to-height ratio.

Take into account people's individual needs and preferences, and factors such as weight-related comorbidities, ethnicity, socioeconomic status, family medical history, eating disorders, disabilities including learning disabilities, neurodevelopmental conditions, and special educational needs and disabilities (SEND). See the sections on behavioural interventions, physical activity approaches, dietary approaches, medicines for overweight and obesity and surgical interventions. [2022, amended 2024]

1.11.7 Discuss any previous or ongoing overweight and obesity management interventions or attempts, including:

- acknowledging any progress the person has already made
- their positive or negative experiences with interventions
- any barriers, or concerns, they may have about making changes and meeting their personal goals
- any cultural and social context or assumptions about health and diet, and the impact of deviating from these to improve their health. [2024]
- 1.11.8 Identify available behavioural overweight and obesity management interventions that are:
  - appropriate for the person, taking their preferences and previous experiences into account if possible
  - culturally appropriate or have been adapted for different cultural communities and dietary practices
  - tailored to specific demographic groups, such as men only or for older adults.

Explain how these may be beneficial (for example, peer support). [2024]

- 1.11.9 Inform people if there are any known costs associated with taking part in the intervention or continuing it after a funded referral period has ended. [2024]
- 1.11.10 Emphasise the person's choice in the referral. Refer them to an inperson individual or group intervention, or digital services according to preference and availability. [2024]
- 1.11.11 Give people information about more sources of long-term community or healthcare support (for example, provided by social prescribers, health coaches, pharmacists, local support groups, online groups or networks, friends and family, Talking Therapies, free healthcare-endorsed apps, national campaigns, and local community groups such as walking or gardening groups). These

can be used while waiting for and alongside an overweight and obesity management intervention. See <a href="NICE's guideline on behaviour change: digital and mobile health interventions">NICE's guideline on behaviour change: digital and mobile health interventions</a> [2024]

For a short explanation of why the committee made these recommendations and how they might affect practice, see the <u>rationale and impact section on choosing interventions with adults</u>.

Full details of the evidence and the committee's discussion for the 2024 recommendations are in <u>evidence review D: identifying overweight and</u> obesity in children, young people and adults.

## Referring adults to specialist services

- 1.11.12 Offer a higher level of intervention to people with weight-related comorbidities (see the <u>section on assessing and managing comorbidities in adults</u>). Adjust the approach depending on the person's clinical needs, for example for people with a BMI over 35 kg/m² who have recently developed diabetes or for people with a BMI of 50. [2022]
- 1.11.13 Consider referral to <u>specialist overweight and obesity management</u> <u>services</u> if:
  - the underlying causes of overweight or obesity need to be assessed
  - the person has complex disease states or needs that cannot be managed adequately in behavioural overweight and obesity management services (for example, the extra support needs of people with learning disabilities)
  - less intensive management has been unsuccessful
  - specialist interventions (such as a very-low-calorie diet) may be needed
  - surgery or certain medicines is being considered.

For more information on specialist overweight and obesity services, see <a href="NHS England's report on joined-up clinical">NHS England's report on joined-up clinical</a> pathways for obesity. [2006, amended 2024]

For a short explanation of why the committee made the 2022 recommendation and how it might affect practice, see the <u>rationale and impact section on referring adults to specialist services</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review A: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in adults.

#### If an adult declines referral

- 1.11.14 If the person declines a referral to an intervention:
  - acknowledge and respect their choice, being aware that a
    person's decision to accept referral may be temporarily or
    permanently influenced by many factors, including the wider
    determinants of overweight and obesity
  - either explore the reason sensitively or delay discussion until an appropriate time
  - ensure they have the opportunity to discuss referral again in future
  - give them information about other ways to make sustainable, long-term changes to their dietary behaviours and physical activity levels. [2024]
- 1.11.15 Give people the opportunity for a re-referral, as needed, taking into account that overweight and obesity management is a long-term process. [2024]

For a short explanation of why the committee made the recommendations and how they might affect practice, see the <u>rationale and impact section on</u> if an adult declines referral.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review E: increasing uptake of weight management services in children, young people and adults.

# 1.12 Discussing results and referral for children and young people

## Asking permission from children and young people, and their families and carers

1.12.1 Ask permission from children, young people, and their families and carers, before talking about the degree of overweight, obesity and central adiposity, and discuss it in a sensitive and age-appropriate manner. [2022]

For a short explanation of why the committee made this recommendation and how it might affect practice, see the <u>rationale and impact section on asking permission from children and young people, and their families and carers</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review B: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in children and young people.

## Discussing the results with children and young people, and their families and carers

1.12.2 During discussions with a child or young person living with overweight or obesity, and their family or carers:

- explain the degree of overweight or obesity, and the health risks associated with a higher BMI
- encourage them to engage with overweight and obesity management
- advocate for the child's health proportionately to the degree of health risk. [2024]
- 1.12.3 Before deciding on behavioural overweight and obesity management interventions, address the drivers of overweight and obesity (for example, social context, mental health and wellbeing, and stigma) if possible. Refer as needed for assessment for any comorbidities, or to other services such as social care, physiotherapy, eating disorder services, or other physical or mental health and wellbeing support and early help services (for example youth work or parenting). [2024]
- 1.12.4 Discuss personalised goals and the importance and wider potential benefits of making sustainable, long-term changes to dietary behaviours and physical activity levels with children and young people (and their families and carers). Changes or goals could include:
  - for children who are growing taller, avoidance of further weight gain and maintenance of weight whilst continuing to grow to reduce BMI centile is a realistic and appropriate goal
  - for young people who have reached their near-final height, longterm behavioural changes that can help them reduce their weight (and explain that this can be a way to sustain a lower BMI)
  - changes to diet and physical activity that can have positive health benefits, independent of any effect on weight or BMI
  - improvements in psychosocial outcomes (such as sense of wellbeing, self-efficacy, self-esteem and self-perception) which are important health benefits

- personal goals such as feeling less breathless when playing with friends. [2024]
- 1.12.5 Use the local mental health pathway to access support if there are concerns about the child or young person's mental health and wellbeing. [2024]

For a short explanation of why the committee made these recommendations and how they might affect practice, see the <u>rationale and impact section on discussing the results with children and young people,</u> and their families and carers.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review G: effectiveness and acceptability of weight management interventions in children and young people living with overweight and <u>obesity</u>.

## Choosing interventions with children and young people, and their families and carers

- 1.12.6 Ensure you are familiar with the local overweight and obesity management pathway for children and young people, including:
  - local and national <u>behavioural overweight and obesity</u>
     <u>management interventions</u> and what these may involve
  - links to support services
  - the referral criteria and the process for funded referrals
  - the capacity of services. [2024]
- 1.12.7 Discuss any previous or ongoing overweight and obesity management interventions or attempts, including:
  - acknowledging any progress the child or young person and their family have already made
  - their positive or negative experiences with interventions
  - barriers to or concerns they may have about:

- joining an intervention
- making changes
- how the child or young person feels about overweight and obesity management and common fears they may have (for example, about having changes in diet and activity imposed, or about being stigmatised)
- how the family or carers feel about overweight and obesity management
- any cultural and social context or assumptions about health and diet, and the impact of deviating from these to achieve better health. [2024]
- 1.12.8 Identify behavioural overweight and obesity management interventions that are:
  - appropriate for the child or young person, taking the family's and carers preferences and previous experiences into account if possible
  - culturally appropriate or have been adapted for different cultural communities and dietary practices
  - tailored to particular demographic groups, such as specific age groups, to encourage peer support.

Explain how these may be beneficial to the child, young person and their family. [2024]

- 1.12.9 Encourage children and young people and their families and carers to take part in decision making by discussing what the interventions involve and what to expect. This could include:
  - giving information about the intervention, or about where they can get this information
  - explaining that the more sessions they attend, the greater the likelihood of success

- explaining how they can take part, including whether or not they can self-refer
- giving information about any known costs associated with taking part in the intervention or continuing it after a funded referral period has ended
- understanding that their decision to accept the referral may be influenced temporarily or permanently by the wider determinants and the context of overweight and obesity.

Emphasise to the child, young person and families or carers that it is their choice whether to accept a referral. [2024]

- 1.12.10 Advise children, young people and their families and carers that behavioural overweight and obesity management interventions:
  - may not reduce BMI in the long term without sustained behavioural changes, but that even a short-term reduction in BMI can improve health and wellbeing and reduce the risk of long-term conditions and comorbidities
  - may focus on weight maintenance and growing into a healthier weight, rather than weight loss, depending on the age of the child or young person, their stage of growth and degree of overweight or obesity
  - need to provide support for weight maintenance after the intervention, because overweight and obesity can be a long-term health issue and relapses are normal. [2024]
- 1.12.11 Refer only to behavioural overweight and obesity management interventions that offer longer-term support and maintenance advice to improve health and wellbeing if these are available locally. Make the referral alongside referral to other health and social care services that can help address the drivers of obesity.

  [2024]
- 1.12.12 Consider tailored interventions for children and young people:

- who are living with overweight or obesity or
- have increased health risk based on their waist-to-height ratio.

Take into account their individual needs and preferences, and factors such as weight-related comorbidities, ethnicity, socioeconomic status, social complexity (for example, looked-after children and young people), family medical history, mental and emotional health and wellbeing, developmental age, and SEND. See the sections on behavioural overweight and obesity management interventions, physical activity approaches, dietary approaches, medicines for overweight and obesity and surgical interventions. [2022]

For a short explanation of why the committee made these recommendations and how they might affect practice, see the <u>rationale and impact section on choosing interventions with children, young people and their families and carers.</u>

Full details of the evidence and the committee's discussion are in evidence review B: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in children and young people, evidence review E: increasing uptake of weight management services in children, young people and adults, and evidence review G: effectiveness and acceptability of weight management interventions in children and young people living with overweight and obesity.

### **Specialist services**

1.12.13 Offer a higher level of intervention such as referral to <a href="mailto:specialist">specialist</a>
<a href="mailto:overweight and obesity management services">overweight and obesity management services</a>, for example
<a href="mailto:complications from excess weight clinics (CEW)">complications from excess weight clinics (CEW)</a> (if available) or
<a href="mailto:paediatric-services">paediatric-services</a> to children and young people with weightrelated comorbidities or who need specialist support. Adjust the
<a href="mailto:approach-depending-on-the-child">approach-depending-on-the-child</a>'s clinical needs. see also the

sections on medicines for children and young people and surgery for children and young people. [2022]

- 1.12.14 In specialist overweight and obesity management services, assess associated comorbidities and possible causes for children and young people who are living with overweight or obesity. Include investigations of:
  - blood pressure
  - lipid profile, preferably while fasting
  - fasting insulin
  - fasting glucose levels and oral glucose tolerance
  - liver function
  - endocrine function.

Interpret the results of any tests used in the context of:

- the level of the child or young person's overweight or obesity
- the child's age
- · any history of comorbidities
- possible genetic causes
- any family history of metabolic disease related to overweight or obesity. [2014]
- 1.12.15 Consider referral to an appropriate specialist for children and young people who are living with overweight or obesity and have significant comorbidities or complex needs (for example, SEND, physical disabilities or other extra support needs). [2006, amended 2014]

For a short explanation of why the committee made the 2022 recommendation and how it might affect practice, see the <u>rationale and impact section on specialist services</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review B: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in children and young people.

## If a child or young person declines referral

- 1.12.16 If the child or young person and their family or carer are not ready or able to accept referral to a behavioural overweight and obesity management intervention:
  - either explore the reason sensitively or delay discussion until an appropriate time
  - ensure they have opportunities to discuss referral in the future and offer a follow-up appointment to monitor the child or young person's weight and reassess readiness and other options
  - give them sources of information about how to make sustainable, long-term changes to their dietary behaviours and physical activity levels outside an intervention (see <a href="NHS Better">NHS Better</a> Health advice)
  - offer alternative interventions that include opportunities to be involved in healthy eating and physical activities such as walking or cycling groups, youth groups, cooking sessions and other children's and young people's activities (these may be delivered by community organisations or other local support). [2024]

For a short explanation of why the committee made these recommendations and how they might affect practice, see the <u>rationale and</u> impact section on if a child or young person declines referral.

Full details of the evidence and the committee's discussion are in evidence review G: effectiveness and acceptability of weight management interventions in children and young people living with overweight and obesity.

# Behavioural overweight and obesity management interventions

People have the right to be involved in discussions and make informed decisions about their care, as described in <a href="NICE's information on making decisions">NICE's information on making decisions about your care.</a>

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Health and social care professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity.
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- People's experience in adult social care services
- Service user experience in adult mental health
- Shared decision making
- Transition from children's to adults' services.

#### Read this guideline alongside:

- NICE guidelines on behaviour change: digital and mobile health interventions, behaviour change: individual approaches, eating disorders, and looked after children and young people
- the National Obesity Audit
- Public Health England's Whole systems approach to obesity and weight management interventions: standard evaluation framework

- the <u>UK Chief Medical Officers' physical activity guidelines</u>
- the NHS Eatwell guide.
- the <u>UK government's childhood obesity: a plan for action</u> and <u>Childhood</u> obesity: applying All Our Health guidance.

For a definition of <u>behavioural overweight and obesity management</u> interventions see the terms used in this guideline section.

Read this section alongside:

 Public Health England's family weight management: changing behaviour techniques, adult weight management: changing behaviour techniques,
 and promoting healthy weight in children, young people and families

## 1.13 Behavioural overweight and obesity management interventions for adults

## Encouraging adherence to behavioural overweight and obesity management interventions for adults

These recommendations are for providers of behavioural overweight and obesity management services.

- 1.13.1 Discuss with the person any concerns or barriers that may affect their attendance and participation in the intervention (such as personal circumstances, cultural barriers, physical health needs, or neurodevelopmental or psychological factors), including those that affect their ability to make changes and their progress towards meeting their goals. Repeat these discussions during the course of the intervention if needed and acknowledge:
  - any progress the person has made
  - any positive or negative experiences with the intervention

- any cultural and social context or assumptions about health and diet, and the impact of deviating from these to improve their health. [2024]
- 1.13.2 If the person is facing difficulties that affect their attendance and participation in the intervention:
  - discuss whether the programme is suitable for them at this time
  - if it has not been possible to resolve their difficulties with the intervention agree what should happen next (for example, referral to another service, leave the intervention at an agreed time, or think about a re-referral at a later date). [2024]
- 1.13.3 Discuss with the person the importance of support from any other members of their household and others such as friends, family, and the other participants in group interventions. With their permission, talk to relevant household members about the intervention and how they can help. [2024]
- 1.13.4 Regularly review the person's health and progress they have made towards meeting their goals (including weight loss) and send feedback to the person's referring GP or healthcare professional (for adults who self-refer, ask permission before sending feedback to their GP). [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on encouraging adherence to behavioural overweight and obesity management interventions for adults.</u>

Full details of the evidence and the committee's discussion are in <u>evidence</u> review E: increasing uptake of weight management services in children, young people and adults.

### Submitting audit data for adults

1.13.5 Submit data on results of behavioural overweight and obesity management interventions for a national audit scheme such as the National Obesity Audit (see the <u>sections on reviewing success</u> and <u>data to collect</u>). [2024]

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the <u>rationale and impact section on submitting audit data for adults</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review E: increasing uptake of weight management services in children, young people and adults.

# 1.14 Behavioural overweight and obesity management interventions for children and young people

## Core components of behavioural overweight and obesity management interventions for children and young people

These recommendations are for providers of overweight and obesity management interventions.

- 1.14.1 Ensure behavioural overweight and obesity management interventions for children and young people include maintenance advice for those who have completed the intervention. [2024]
- 1.14.2 Ensure interventions are multicomponent, tailored to meet individual needs, and take into account the wider determinants and context of overweight and obesity (see <a href="recommendation 1.1.1">recommendation 1.1.1</a> in the section on discussion, communication and follow up). [2024]
- 1.14.3 Ensure interventions focus on:
  - targeted diet modifications and

- healthy and nutritious eating habits (see the <u>section on dietary</u> <u>approaches</u>) and
- effective behaviour-change strategies to help the child, young person, their families and carers modify their behaviours, such as:
  - motivational techniques
  - setting goals and planning how to achieve them
  - giving feedback or rewards for progress
  - encouraging self-monitoring and building on success
  - teaching people strategies to implement changes
  - making it easier to make changes by reducing barriers and building life skills. [2024]
- 1.14.4 Consider including a physical activity component in interventions.This can focus on:
  - reducing the amount of time spent being sedentary
  - increasing physical activity, for example by taking part in active games, dancing and exercise (see the <u>section on physical</u> <u>activity approaches</u>). [2024]
- 1.14.5 Ensure behavioural overweight and obesity management interventions encourage all family members to eat healthily and to be physically active, regardless of their weight. [2024]
- 1.14.6 Maintain consistency of staff if possible throughout each cycle of the intervention. **[2024]**

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on core components of behavioural overweight and obesity management interventions for children and young people.</u>

Full details of the evidence and the committee's discussion are in <u>evidence</u> review E: increasing uptake of weight management services in children,

young people and adults and evidence review G: effectiveness and acceptability of weight management interventions in children and young people living with overweight and obesity.

## Developing a tailored plan to meet individual needs

These recommendations are for providers of behavioural overweight and obesity management interventions.

- 1.14.7 Assess and record the child or young person's degree of overweight, obesity or central adiposity, obesity-associated comorbidities and mental health and wellbeing (including whether their weight is a consequence of circumstances that have affected their mental wellbeing), in particular for those who:
  - have self-referred to the intervention
  - have not been assessed by a healthcare professional.

See the <u>section on measures of overweight, obesity and central</u> adiposity in children and young people. **[2024]** 

- 1.14.8 Inform the child or young person's GP if any concerns are identified (for example, obesity-related comorbidities or mental wellbeing).[2024]
- 1.14.9 Refer to the local mental health pathway if there are concerns at any stage of the intervention that the child or young person's mental wellbeing is affected by their weight, that mental health is affecting their weight or the circumstances that influence their weight, or an eating disorder is suspected. [2024]
- 1.14.10 Give children and young people opportunities to discuss issues such as self-esteem, self-perception (including any history of bullying or teasing) and any previous attempts to manage their weight, either in a group or one-to-one setting. [2024]

- 1.14.11 Agree goals that can be realistically achieved over the duration of the intervention. [2024]
- 1.14.12 Include families and carers as well as children and young people (depending on their ability and stage of development), in discussions about situations in which it would be possible to:
  - improve dietary intake and eating patterns and behaviours
  - reduce sedentary behaviour. [2024]
- 1.14.13 Agree dietary changes that are age appropriate, affordable, culturally sensitive and consistent with healthy eating advice, and take into account the child or young person's preferences. [2024]
- 1.14.14 Ensure nutrient needs for growth and development are met by including healthier choices, in appropriate amounts, from each of the food groups. [2024]
- 1.14.15 Consider increasing the amount and types of moderate-tovigorous-intensity physical activity during the intervention. [2024]
- 1.14.16 Engage with families and carers as well as children and young people (depending on their ability and stage of development), to regularly compare progress against their goals and provide feedback. [2024]
- 1.14.17 Praise progress and achievements and update goals as the child or young person progresses throughout the intervention. [2024]
- 1.14.18 If the child or young person is not meeting their goals, discuss the possible reasons for this and modify the goals if necessary. [2024]
- 1.14.19 Stress the importance of maintaining changes, no matter how small, over the longer term. **[2024]**
- 1.14.20 Encourage the family and carers, and the child or young person (depending on their ability and stage of development), to take up offers of ongoing support (see the <u>sections on ongoing support</u>

from providers of overweight and obesity management interventions and ongoing support from healthcare and other professionals). [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on developing a tailored plan to meet individual needs</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review G: effectiveness and acceptability of weight management interventions in children and young people living with overweight and obesity.

## Care for the wider family

- 1.14.21 Offer assessment of overweight, obesity or central adiposity to families and carers. **[2013]**
- 1.14.22 Emphasise that the behavioural overweight and obesity management intervention may benefit the whole family. [2013]
- 1.14.23 Offer information about local and national behavioural overweight and obesity management interventions to family members and carers who are living with overweight or obesity. [2013]

Also see the <u>sections on dietary approaches</u> and <u>physical activity approaches</u> for children and young people.

## Encouraging adherence to behavioural overweight and obesity management interventions for children and young people

These recommendations are for providers of overweight and obesity management interventions.

1.14.24 Consider both individual and group interventions, based on the child or young person's needs and those of their family and carers. For example, some families may prefer to attend individual sessions initially and then group sessions as the child or young

person's confidence and self-esteem grows. Think about whether a young person may respond better if their sessions are separate from those for their family and carers. [2024]

- 1.14.25 Offer interventions that are accessible and convenient by:
  - using venues that have the necessary facilities, are easily accessible by public transport, and where the child or young person and their family or carers feel comfortable
  - offering times that are convenient for families with children of different ages, working family members and carers
  - adopting a flexible approach so that participants can accommodate other commitments. [2024]
- 1.14.26 Maintain regular contact with families and carers, and review progress towards meeting individual goals (including weight).[2024]
- 1.14.27 Promptly follow up those who miss sessions to establish why, ensure safeguarding, and encourage re-engagement. Focus on participants from groups likely to be affected by health inequalities and those who miss sessions early in the intervention. [2024]
- 1.14.28 Discuss with the families and carers the importance of their support and readiness to adhere to the intervention. [2024]
- 1.14.29 Discuss with the child or young person, and their family and carers, their views and experiences of the intervention. [2024]
- 1.14.30 Discuss with families and carers any issues they may be facing that may affect their attendance and participation in the intervention. Explore any reasons beyond the family's control, such as unemployment, financial difficulties or caring responsibilities. See recommendation 1.12.7 on discussing any previous or ongoing overweight and obesity management interventions or attempts.
  [2024]

1.14.31 If it has not been possible to resolve a child or young person's difficulties with the intervention, or those of the family or carers, (for example, their attendance or participation) agree what should happen next. For example, they could be referred to another service, leave the intervention at an agreed time, or think about a re-referral at a later date. See <a href="NICE's guidance on making decisions using NICE guidelines">NICE guidelines</a> for more information about safeguarding. [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on encouraging adherence to behavioural overweight and obesity management interventions for children and young people.</u>

Full details of the evidence and the committee's discussion are in <u>evidence</u> review E: increasing uptake of weight management services in children, young people and adults.

## Ongoing support from providers of overweight and obesity management interventions

These recommendations are for providers of overweight and obesity management interventions.

- 1.14.32 Offer a range of options for follow-up sessions after the intervention active phase has been completed. This should include at different times and in easily accessible and suitable venues. [2024]
- 1.14.33 Discuss with the child or young person, their family and carers any local services and activities that can provide further long-term support to help them manage their weight, for example, local leisure services and walking, cycling or youth groups. [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and</u>

impact section on ongoing support from providers of overweight and obesity management interventions.

Full details of the evidence and the committee's discussion are in evidence review G: effectiveness and acceptability of weight management interventions in children and young people living with overweight and obesity.

## Ongoing support from healthcare and other professionals

- 1.14.34 Use information from the intervention provider (such as change in weight, BMI centile or waist-to-height ratio, reported improvements to fitness and mental wellbeing) and continue to measure when appropriate to help monitor progress and give ongoing tailored support. [2024]
- 1.14.35 Offer support and follow-up sessions, depending on the needs of the child or young person and their family and carers. [2024]
- 1.14.36 Give children and young people, and their family and carers, information about any other local sources of long-term support as part of a multidisciplinary team approach. These could include support from a Registered dietitian or Registered nutritionist, youth worker, school nurse, family support worker, local support group, online groups or networks, friends and family, free healthcare-endorsed apps, national programmes, charities, helplines, and community groups (such as local leisure services or sports clubs).

  [2024]
- 1.14.37 If the child or young person's BMI centile and SD (see recommendations 1.10.9 and 1.10.10 on classifying overweight, obesity and central adiposity in children and young people) begins to increase, or if they or their family or carers express concerns about their weight and health (or sustaining changes in their behaviour):

- discuss the possible reasons for these
- offer another referral to an alternative overweight and obesity management intervention that may better address the needs of the child or young person, and those of their family and carers (this could include re-referral to a service they have used before)
- if the child or young person has any comorbidities, ensure they
  get support from paediatric services or specialist overweight and
  obesity management services (if eligible). [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on ongoing support from healthcare and other professionals</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review G: effectiveness and acceptability of weight management interventions in children and young people living with overweight and obesity.

## Submitting audit data for children and young people

1.14.38 Submit data on behavioural overweight and obesity management interventions for a national audit scheme such as the National Obesity Audit (see the <u>sections on reviewing success</u> and on <u>data</u> to collect). [2024]

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the <u>rationale and</u> impact section on submitting audit data for children and young people.

Full details of the evidence and the committee's discussion are in evidence review G: effectiveness and acceptability of weight management interventions in children and young people living with overweight and obesity.

### Psychological therapies to address the effect of weight stigma

NICE has made a <u>recommendation for research about psychological</u> therapies to address the effect of weight stigma.

For a short explanation of why the committee made the recommendation for research and how it might affect practice, see the <u>rationale section on psychological therapies to address the effect of weight stigma in children and young people.</u>

Full details of the evidence and the committee's discussion are in <u>evidence</u> review I: psychological approaches to address weight stigma in children, young people and adults.

## Physical activity and diet

People have the right to be involved in discussions and make informed decisions about their care, as described in <a href="NICE's information on making decisions about your care">NICE's information on making decisions about your care</a>.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Health and social care professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity.
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- People's experience in adult social care services

- Service user experience in adult mental health
- Shared decision making
- Transition from children's to adults' services.

### Read this guideline alongside:

- NICE guidelines on behaviour change: digital and mobile health interventions, behaviour change: individual approaches, eating disorders, and looked after children and young people
- the National Obesity Audit
- Public Health England's Whole systems approach to obesity and weight management interventions: standard evaluation framework
- the UK Chief Medical Officers' physical activity guidelines
- the NHS Eatwell guide.
- the <u>UK government's childhood obesity: a plan for action</u> and <u>Childhood obesity: applying All Our Health guidance</u>.

## 1.15 Physical activity approaches

See also the recommendations on physical activity in the <u>section on</u> <u>behavioural overweight and obesity management interventions</u>.

#### Staff qualifications

1.15.1 Ensure staff leading supervised physical activity sessions are qualified and insured, for example, for example a physiotherapist or a practitioner member of the CIMSPA (Chartered Institute for the Management of Sport and Physical Activity). Ensure that people running children's sessions have a paediatric CPR qualification.

[2014, amended 2024]

#### Physical activity approaches for adults

1.15.2 Encourage adults to increase their physical activity even if they do not lose weight as a result, because of the other health benefits it can bring. Encourage them to meet the recommendations in the

- <u>UK Chief Medical Officers' physical activity guidelines</u> for weekly activity. See NHS advice on treating obesity [2006]
- 1.15.3 Advise that to prevent obesity, most people may need to do 45 to 60 minutes of moderate-intensity physical activity a day, particularly if they do not reduce their energy intake. Advise people who have lived with obesity and have lost weight that they may need to do 60 to 90 minutes of activity a day to avoid regaining weight. (See <a href="NHS advice on treating obesity">NHS</a>
- 1.15.4 Encourage adults to build up to the recommended activity levels for weight maintenance, using a managed approach with agreed goals. Recommend:
  - activities as part of everyday life, such as brisk walking, gardening or cycling (see <u>NICE's guideline on walking and cycling</u>)
  - supervised exercise programmes
  - other activities, such as swimming, aiming to walk a certain number of steps each day, or stair climbing.

Take into account the person's current physical fitness and ability for all activities. Encourage people to also reduce the amount of time they spend inactive, such as leisure-based screen time. [2006]

## Physical activity approaches for children and young people

1.15.5 Encourage children and young people to increase their level of physical activity, even if they do not lose weight as a result, because of the other health benefits physical activity can bring Encourage them to meet the recommendations in the UK Chief Medical Officers' physical activity guidelines for daily activity, NHS physical activity guidelines for children and young people and the Department of Health and Social Care's physical activity guidelines

for disabled children and disabled young people. [2006, amended 2024]

- 1.15.6 Be aware that children who are already living with overweight or obesity may need to do more than the standard recommended amount of activity. [2006, amended 2014]
- 1.15.7 Give children the opportunity and support to both include more physical activity in their daily lives (for example, walking, cycling, using the stairs and active play; see also NICE's guideline on walking and cycling) and to do more regular, structured physical activity (for example football, swimming or dancing). Agree the choice of activity with the child, and ensure it is appropriate to the child's interests, ability and confidence and is affordable for the family (see the UK Chief Medical Officers' physical activity guidelines for ideas of free activities). [2006, amended 2024]

## 1.16 Dietary approaches

## Dietary approaches for all ages

- 1.16.1 Use a flexible and individualised approach to tailor dietary interventions to achieve nutritional balance while reducing energy intake, taking into account:
  - food preferences (including cultural preferences)
  - personal circumstances (such as home environment and family finances)
  - any comorbidities (such as eating disorders or disordered eating, type 1 diabetes, inflammatory bowel disease or non-alcoholic fatty liver disease)
  - any restrictions in the range of foods they eat (for example because of neurodiversity, sensory problems, or coeliac disease)
  - that in many cases weight regain may happen. [2024]

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- 1.16.2 Encourage people to improve their dietary intake even if this does not result in them losing weight, because there can be other health benefits (for example, improved lipid profile and reduced risk of type 2 diabetes and cardiovascular disease). [2024]
- 1.16.3 Ensure that dietary approaches for adults to support overweight and obesity management keep the person's total energy intake below their energy expenditure (also called an energy deficit or calorie deficit). This could be done by lowering specific macronutrient content (for example, low-fat or low-carbohydrate diets) or using other methods to limit overall energy intake. [2024]
- 1.16.4 Ensure that dietary approaches for children and young people keep their total energy intake at or below the recommended daily calorie intake for their age and sex, depending on their level of overweight or obesity and any weight-related comorbidities. Focus on healthy eating rather than on overly restrictive diets. See the <a href="Scientific Advisory Committee on Nutrition guidance on feeding young children aged 1 to 5 years.">Scientific 2024</a>]
- 1.16.5 Ensure that any dietary approaches that maintain an energy deficit are offered with support (for example by an appropriately trained healthcare professional such as a Registered dietitian or Registered nutritionist) and follow up to help people maintain any weight loss in the long term. [2024]
- 1.16.6 Encourage people to eat a nutritionally balanced diet in the long term, consistent with other healthy eating advice. See the <a href="NHS">NHS</a>
  <a href="Eatwell guide">Eatwell guide</a>. [2024]
- 1.16.7 Advise people not to use restrictive diets that are nutritionally unbalanced, because they are ineffective in the long term and can be harmful. [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on dietary approaches for all ages</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review F:effectiveness of different diets in achieving and maintaining weight loss.

### Intermittent fasting in adults

NICE has made a <u>recommendation for research about intermittent fasting in</u> adults.

For a short explanation of why the committee made the recommendation for research and how it might affect practice, see the <u>rationale section on intermittent fasting in adults</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review F: effectiveness of different diets in achieving and maintaining weight loss.

## Low-energy and very-low-energy diets for adults

- 1.16.8 Consider low-energy diets (800 to 1,200 kilocalories per day, also known as low-calorie diets) only as part of a multicomponent overweight and obesity management strategy with long-term support within a specialist overweight and obesity management service (or other services for the management of long-term conditions such as type 2 diabetes) for people:
  - living with obesity (with or without diabetes) or
  - living with overweight and with type 2 diabetes.

See the <u>recommendations on classifying overweight, obesity</u> and <u>central adiposity in adults</u>. [2024]

- 1.16.9 Consider very-low-energy diets (under 800 kilocalories per day, also known as very-low-calorie diets) only as part of a multicomponent strategy within a specialist overweight and obesity management service, for people who:
  - are living with obesity and
  - have a clinically assessed need to rapidly lose weight (for example, to make surgery safer and more feasible). [2024]
- 1.16.10 Do not use low-energy diets or very-low-energy diets as a long-term strategy to manage obesity. **[2024]**
- 1.16.11 Ensure that low-energy and very-low-energy diets:
  - are nutritionally complete
  - last no more than 12 weeks
  - include ongoing clinical support and supervision, with access to support from an appropriately trained Registered dietitian or Registered nutritionist, and advice on reintroducing a wider range of foods (for example, moving on to a nutritionally balanced diet for long-term and sustainable weight loss maintenance). [2024]
- 1.16.12 Before starting someone on a low-energy or very-low-energy diet as part of a multicomponent overweight and obesity management strategy:
  - Explain that this is a restrictive diet with a specific health goal
     (such as improvement in diabetes) and risks (such as weight
     cycling, weight regain and potential adverse events, and for
     very-low-energy diets also the risk of constipation, fatigue and
     hair loss).
  - Explain that this is not a long-term overweight and obesity management strategy.
  - Discuss:

- that weight regain is likely to happen, and if it does it is not because they or their healthcare professional have 'failed'
- reintroducing a wider range of foods after a low-energy or very-low-energy diet
- the options for long-term weight loss maintenance support or therapies (including nutritional advice, physical activity, medicines or surgery) if weight regain happens.
- Offer assessment and counselling if they may have eating disorders or other mental health issues, to ensure the diet is appropriate for them.
- Review any medicines they are taking and discuss any changes that may need to be made. [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the <u>rationale and impact section on low-energy and very-low-energy diets for adults</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review F: effectiveness of different diets in achieving and maintaining weight loss.

## Dietary approaches for children and young people

1.16.13 Avoid a dietary approach alone. Ensure dietary recommendations are part of a multicomponent intervention and are age appropriate and consistent with healthy eating advice. [2006]

## Medicines and surgery

People have the right to be involved in discussions and make informed decisions about their care, as described in <a href="NICE's information on making decisions">NICE's information on making decisions about your care.</a>

<u>Making decisions using NICE guidelines</u> explains how we use words to show the strength (or certainty) of our recommendations, and has

information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Health and social care professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity.
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- People's experience in adult social care services
- Service user experience in adult mental health
- Shared decision making
- · Transition from children's to adults' services.

#### Read this guideline alongside:

- NICE guidelines on behaviour change: digital and mobile health interventions, behaviour change: individual approaches, eating disorders, and looked after children and young people
- the National Obesity Audit
- Public Health England's Whole systems approach to obesity and weight management interventions: standard evaluation framework
- the UK Chief Medical Officers' physical activity guidelines
- the NHS Eatwell guide.
- the <u>UK government's childhood obesity: a plan for action</u> and <u>Childhood</u> obesity: applying All Our Health guidance.

## 1.17 Medicines for overweight and obesity

#### **Medicines for adults**

This section contains a table of medicines for weight loss, which includes NICE technology appraisal guidance.

- 1.17.1 After dietary, exercise and behavioural approaches have been started and evaluated in adults living with overweight or obesity, see the weight loss medicines options listed in table 1. [2006, amended 2024]
- 1.17.2 All medicines for weight loss should be used alongside a reduced-calorie diet and increased physical activity. **[2024]**
- 1.17.3 Make the decision to start medicines after discussing them with the person, and discussing the potential impact on their motivation. Arrange information, support and counselling on additional diet, physical activity and behavioural strategies when medicines are prescribed, and give information on patient support programmes. [2006, amended 2014]

Table 1 Medicines options for weight loss in adults

-	Tirzepatide	Semaglutide	Liraglutide	Orlistat
For more detail see	NICE's technology appraisal guidance on tirzepatide for managing overweight and obesity	NICE's technology appraisal guidance on semaglutide for managing overweight and obesity (TA875, March 2023)	NICE's technology appraisal guidance on liraglutide for managing overweight and obesity (TA664, December 2020)	There is no NICE technology appraisal guidance on orlistat
For people with	An initial BMI of at least 35 kg/m² and at least 1 weight-related comorbidity.	One weight- related comorbidity and:  and: of	An initial BMI of 35 kg/m² or more and	A BMI of 30 kg/m² or more or a BMI of 28 kg/m² or more and

-	Tirzepatide	Semaglutide	Liraglutide	Orlistat
For more detail see	NICE's technology appraisal guidance on tirzepatide for managing overweight and obesity	NICE's technology appraisal guidance on semaglutide for managing overweight and obesity (TA875, March 2023)	NICE's technology appraisal guidance on liraglutide for managing overweight and obesity (TA664, December 2020)	There is no NICE technology appraisal guidance on orlistat
	(ID6179, October 2024)	35.0 kg/m² or more,  or  an initial BMI of 30.0 kg/m² to 34.9 kg/m² and who meet the criteria for referral to specialist overweight and obesity managemen t services.	non-diabetic hyperglycaemi a and a high risk of cardiovascular disease.	associated risk factors. (orlistat summary of product characteristic s [SPC])
Setting	Prescribed in all settings.	Prescribed in a specialist overweight and obesity management service.	Prescribed in secondary care by a specialist overweight and obesity management service.	Prescribed in all settings and available in a lower dose from a pharmacy.
Route and frequency	Weekly subcutaneou s injection.	Weekly subcutaneous injection.	Daily subcutaneous injection.	Oral capsule, up to 3 times a day.
Pregnancy and contraceptio n	Do not use in pregnancy or in women of childbearing potential not using contraception . Switch to a non-oral contraceptive method, or add a barrier	Do not use in pregnancy. Women of childbearing potential are recommended to use contraception. (semaglutide SPC)	Do not use in pregnancy. (liraglutide SPC)	Caution in pregnancy. The use of an additional contraceptive method is recommende d to prevent possible failure of oral contraception that could

-	Tirzepatide	Semaglutide	Liraglutide	Orlistat
For more detail see	NICE's technology appraisal guidance on tirzepatide for managing overweight and obesity	NICE's technology appraisal guidance on semaglutide for managing overweight and obesity (TA875, March 2023)	NICE's technology appraisal guidance on liraglutide for managing overweight and obesity (TA664, December 2020)	There is no NICE technology appraisal guidance on orlistat
	method of contraception on initiation and after each dose escalation for 4 weeks.  (tirzepatide SPC)			occur in case of severe diarrhoea. (orlistat SPC)
When to stop treatment	If less than 5% of the initial weight has been lost after 6 months on the highest tolerated dose, decide whether to continue treatment, taking into account the benefits and risks of treatment for the person.	Consider stopping if less than 5% of the initial weight has been lost after 6 months of treatment.	Stop after 12 weeks on the 3.0 mg/day dose if at least 5% of the initial body weight has not been lost. (liraglutide SPC)	Stop after 12 weeks if at least 5% of the initial body weight has not been lost. (orlistat SPC)

Semaglutide and liraglutide are recommended for use within specialist weight management services, which are usually accessed for up to 2 years.

For tirzepatide, semaglutide and liraglutide, use lower BMI thresholds (usually reduced by 2.5 kg/m²) for people from South Asian, Chinese, other Asian, Middle Eastern, Black African or African-Caribbean ethnic backgrounds.

Non-diabetic hyperglyacaemia is defined as a haemoglobin A1c level of 42 mmol/mol to 47 mmol/mol (6.0% to 6.4%) or a fasting plasma glucose level of 5.5 mmol/litre to 6.9 mmol/litre.

#### Continued prescribing and withdrawal for adults

- 1.17.4 If there is concern about micronutrient intake adequacy, consider a supplement providing the reference nutrient intake for all vitamins and minerals, particularly for older people (who may be at risk of malnutrition) and young people (who need vitamins and minerals for growth and development). [2006]
- 1.17.5 Offer support to help maintain weight loss to people who are stopping weight-loss medicines. [2006]

### Monitoring weight-loss medicines in adults

- 1.17.6 Monitor the effect of medicines and reinforce behavioural advice and adherence through regular review. [2006, amended 2014]
- 1.17.7 When agreeing goals with someone with type 2 diabetes, take into account that their weight loss may be slower than that of people without the condition. Review their goals regularly. [2006]

## Medicines for children and young people

- 1.17.8 Weight-loss medicines are not generally recommended for children younger than 12 years. [2006]
- 1.17.9 In children younger than 12 years, medicines may be used only in exceptional circumstances, if severe comorbidities are present. Prescribing should be started and monitored only in specialist paediatric settings. See also the <a href="NICE guideline on the diagnosis">NICE guideline on the diagnosis</a> and management of diabetes in children and young people. [2006, amended 2014]
- 1.17.10 In children aged 12 years and older, treatment with orlistat is recommended only if physical comorbidities (such as orthopaedic problems or sleep apnoea) or severe psychological comorbidities are present, and if started in a specialist paediatric setting by a multidisciplinary team with expertise in:
  - prescribing in this age group

- monitoring medicines
- psychological support
- behavioural interventions
- interventions to increase physical activity
- interventions to improve dietary intake. [2006, amended 2014]

In June 2023, this was an off-label use of orlistat. See NICE's information on prescribing medicines

1.17.11 Medicines may be continued in primary care, for example with a shared-care protocol, if local circumstances or licensing allow.[2006, amended 2014]

### Continued prescribing and withdrawal for children and young people

- 1.17.12 Follow the <u>recommendations on continued prescribing and</u> withdrawal for adults. **[2023]**
- 1.17.13 If orlistat is prescribed for children and young people, a 6- to12-month trial is recommended, with regular review to assess effectiveness, adverse effects and adherence.

In June 2023, this was an off-label use of orlistat. See <u>NICE's</u> information on prescribing medicines. [2006, amended 2014]

# 1.18 Surgical interventions

Also see NICE's interventional procedures guidance on endoscopic sleeve gastroplasty for obesity.

# When to refer adults for assessment for bariatric surgery

1.18.1 Offer adults a referral for a comprehensive assessment by specialist overweight and obesity management services providing multidisciplinary management of obesity, to see whether bariatric surgery is suitable for them if they:

- have a BMI of 40 kg/m² or more, or between 35 kg/m² and 39.9 kg/m² with a significant health condition that could be improved if they lost weight (see box 2 for examples) and
- agree to the necessary long-term follow up after surgery (for example, lifelong annual reviews). [2023]
- 1.18.2 Consider referral for people of South Asian, Chinese, other Asian, Middle Eastern, Black African or African—Caribbean background using a lower BMI threshold (reduced by 2.5 kg/m²) than in recommendation 1.9.1, to account for the fact that these groups are prone to central adiposity and their cardiometabolic risk occurs at lower BMI. [2023]

# Box 2 Examples of common health conditions that can improve after bariatric surgery

Some conditions that can improve after bariatric surgery include:

- cardiovascular disease
- hypertension
- idiopathic intracranial hypertension
- non-alcoholic fatty liver disease with or without steatohepatitis
- obstructive sleep apnoea
- type 2 diabetes.

These examples are based on the evidence identified for this guideline and the list is not exhaustive.

## When to offer expedited assessment

- 1.18.3 Offer an expedited assessment for bariatric surgery to people:
  - with a BMI of 35 kg/m<sup>2</sup> or more who have recent-onset
     (diagnosed within the past 10 years) type 2 diabetes and
  - as long as they are also receiving, or will receive, assessment in a specialist overweight and obesity management service. [2014]

- 1.18.4 Consider an expedited assessment for bariatric surgery for people:
  - with a BMI of 30 to 34.9 kg/m² who have recent-onset
     (diagnosed within the past 10 years) type 2 diabetes and
  - who are also receiving, or will receive, assessment in a specialist overweight and obesity management service. [2014]
- 1.18.5 Consider an expedited assessment for bariatric surgery for people of South Asian, Chinese, other Asian, Middle Eastern, Black African or African–Caribbean background using a lower BMI threshold (reduced by 2.5 kg/m²) than in recommendation 1.9.4, to account for the fact that these groups are prone to central adiposity and their cardiometabolic risk occurs at lower BMI. [2014, amended 2023]

### Initial assessment and discussions with the multidisciplinary team

- 1.18.6 Ensure the multidisciplinary team within a specialist overweight and obesity management service includes or has access to health and social care professionals who have expertise in conducting medical, nutritional, psychological and surgical assessments in people living with obesity and are able to assess whether surgery is suitable. [2023]
- 1.18.7 Carry out a comprehensive, multidisciplinary assessment for bariatric surgery based on the person's needs. As part of this, assess:
  - the person's medical needs (for example, existing comorbidities)
  - their nutritional status (for example, dietary intake, and eating behaviours)
  - any psychological needs that, if addressed, would help ensure surgery is suitable and support adherence to postoperative care requirements
  - their previous attempts to manage their weight, and any past
     response to an overweight and obesity management intervention

- (such as one provided by a specialist overweight and obesity management service)
- any other factors that may affect their response after surgery (for example, language barriers, learning disabilities and neurodevelopmental conditions, deprivation and other factors related to health inequalities)
- whether any individual arrangements need to be made before
  the day of the surgery (for example if they need extra dietary or
  psychological support, or support to manage existing or new
  comorbidities)
- fitness for anaesthesia and surgery. [2023]
- 1.18.8 The hospital specialist or bariatric surgeon should discuss the following with people who are thinking about having bariatric surgery:
  - the potential benefits
  - plans for conception and pregnancy (for women and trans and non-binary people of childbearing age)
  - the longer-term implications and requirements of surgery
  - the potential risks, including perioperative mortality, and complications.

Include the person's family and carers in the discussion, if appropriate. [2006, amended 2023]

- 1.18.9 Choose the surgical intervention jointly with the person, taking into account:
  - the severity of obesity and any comorbidities
  - the best available evidence on effectiveness and long-term effects
  - · the facilities and equipment available
  - the experience of the surgeon who would perform the operation.
     [2006]

- 1.18.10 Give the person information on:
  - appropriate dietary intake after the bariatric procedure
  - monitoring their macronutrient and micronutrient status
  - individualised nutritional supplementation, and sources of support and guidance for long-term weight loss and weight maintenance
  - patient support groups. [2006, amended 2023]

For a short explanation of why the committee made the 2023 recommendations and how they might affect practice, see the <u>rationale and impact section on surgical interventions</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review C: referral for bariatric surgery.

## **Preoperative assessment and discussions**

1.18.11 Carry out a comprehensive preoperative assessment of any psychological or clinical factors that may affect adherence to postoperative care requirements (such as changes to dietary intake, eating behaviours and taking nutritional supplements) before performing surgery. [2006, amended 2014]

# Medicines while waiting for surgery

1.18.12 Medicines may be used to maintain or reduce weight before surgery for people who have been recommended surgery, if the waiting time is excessive. See the <u>section on medicines for overweight and obesity</u>. [2006, amended 2023]

# Multidisciplinary team qualifications and hospital equipment in surgical settings

- 1.18.13 The surgeon in the multidisciplinary team should have:
  - had relevant, supervised training
  - specialist experience in bariatric surgery. [2006, amended 2014]

- 1.18.14 Ensure the multidisciplinary team carrying out bariatric surgery can provide:
  - preoperative assessment, including a risk-benefit analysis that includes preventing complications of obesity
  - specialist assessment for eating disorders (and if appropriate, referral or signposting to specialist eating disorder services)
  - information on the different procedures, including potential weight loss and possible risks
  - regular postoperative assessment, including specialist dietetic and surgical follow up (see <u>recommendation 1.18.17 on</u> <u>postoperative and longer-term follow-up care</u>)
  - management of comorbidities
  - specialist psychological support before and after surgery (for example, a psychological assessment before surgery and, if appropriate, referral to specialist mental health services either before or after surgery)
  - information on plastic surgery (such as apronectomy) if appropriate. [2006, amended 2023]
- 1.18.15 Hospitals undertaking bariatric surgery should ensure there is access to, and staff trained to use, suitable equipment, including but not limited to weighing scales, blood pressure cuffs, theatre tables, walking frames, commodes, hoists, bed frames, pressure-relieving mattresses and seating suitable for people having bariatric surgery. [2006, amended 2023]
- 1.18.16 Only surgeons with extensive experience should undertake revisional surgery (if the first operation has not been effective) in specialist centres because of the higher rate of complications and increased mortality of revision surgery compared with primary surgery. [2006]

### Postoperative and longer-term follow-up care

- 1.18.17 Offer people who have had bariatric surgery a follow-up care package for a minimum of 2 years within the bariatric service. Include:
  - monitoring nutritional intake, (including protein and vitamins) and mineral deficiencies
  - · monitoring for comorbidities
  - medications review
  - individualised dietary and nutritional assessment, advice and support
  - advice and support on physical activity
  - psychological support tailored to the person
  - information about professionally led or peer-support groups.
     [2014]
- 1.18.18 After discharge from follow up by the bariatric surgery service, ensure people are offered at least annual monitoring of nutritional status and appropriate supplementation after bariatric surgery, as part of a shared-care model with primary care. [2014]

## Audit of bariatric surgery

- 1.18.19 Arrange a prospective audit so that the outcomes and complications of different procedures, the impact on quality of life and nutritional status, and the effect on comorbidities can be monitored in both the short and the long term. (The <a href="National Bariatric Surgery Registry">National Bariatric Surgery Registry</a> conducts national audits for agreed outcomes.) [2006, amended 2014]
- 1.18.20 The surgeon in the multidisciplinary team should submit data for a national clinical audit scheme such as the National Bariatric Surgery Registry. [2006, amended 2014]

### Surgery for children and young people

- 1.18.21 Surgery for obesity is not generally recommended in children or young people. [2006]
- 1.18.22 Surgery for obesity may be considered for young people only in exceptional circumstances, and if they have achieved or nearly achieved physiological maturity. [2006]
- 1.18.23 Surgery for obesity should be undertaken only by a multidisciplinary team that can provide paediatric expertise in:
  - preoperative assessment, including a risk-benefit analysis that includes preventing complications of obesity
  - specialist assessment for eating disorders (and, if appropriate, referral or signposting to specialist eating disorder services)
  - information on the different procedures, including potential weight loss and possible risks
  - regular postoperative assessment, including specialist dietetic and surgical follow up (see <u>recommendation 1.18.17 on</u> <u>postoperative and longer-term follow-up care</u>)
  - management of comorbidities
  - specialist psychological support before and after surgery (for example, a psychological assessment before surgery and, if appropriate, referral to specialist mental health services either before or after surgery)
  - information on plastic surgery (such as apronectomy) if appropriate. [2006, amended 2023]
- 1.18.24 Hospitals undertaking paediatric bariatric surgery should ensure there is access to, and staff trained to use, access to suitable equipment, including scales, theatre tables, walking frames, commodes, hoists, bed frames, pressure-relieving mattresses and seating suitable for young people having bariatric surgery. [2006, amended 2023]

- 1.18.25 Coordinate surgical care and follow-up around the young person and their family's needs. Follow the approaches outlined in the <a href="Department of Health's healthy lives">Department of Health's healthy lives</a>, healthy people: a call to action on obesity in England. [2006, amended 2014]
- 1.18.26 Ensure all young people have had a comprehensive psychological, educational, family and social assessment before undergoing bariatric surgery. [2006, amended 2014]
- 1.18.27 Perform a full medical evaluation, including genetic screening or assessment before surgery to exclude rare, treatable causes of obesity. [2006]

# Digital technologies for delivering multidisciplinary weight-management services to adults

NICE has published early value assessment guidance on technologies for delivering multidisciplinary weight-management services to adults that can be used in the NHS, while more evidence is generated. These technologies provide multidisciplinary programmes to increase physical activity levels and improve eating behaviour and diet. Some of these technologies can also be used to prescribe and monitor weight-management medicine. See <a href="NICE's">NICE's</a> early value assessment on digital technologies for delivering multidisciplinary weight-management services.

# Planning and delivering overweight and obesity services and interventions

People have the right to be involved in discussions and make informed decisions about their care, as described in <a href="NICE's information on making decisions about your care">NICE's information on making decisions about your care</a>.

<u>Making decisions using NICE guidelines</u> explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use),

professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Health and social care professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity.
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- People's experience in adult social care services
- Service user experience in adult mental health
- Shared decision making
- Transition from children's to adults' services.

### Read this guideline alongside:

- NICE guidelines on behaviour change: digital and mobile health interventions, behaviour change: individual approaches, eating disorders, and looked after children and young people
- the National Obesity Audit
- Public Health England's Whole systems approach to obesity and weight management interventions: standard evaluation framework
- the UK Chief Medical Officers' physical activity guidelines
- the NHS Eatwell guide.
- the <u>UK government's childhood obesity: a plan for action</u> and <u>Childhood obesity: applying All Our Health guidance</u>.

Read this section alongside:	

- Department of Health and Social Care's <u>guidance on the preparation of</u> integrated care strategies
- Hewitt Review: an independent review of integrated care systems
- NHS England's information on integrated care systems
- NIHR Evidence's How can local authorities reduce obesity?
- Public Health England's:
  - Adult weight management: key performance indicators
  - Community centred public health: taking a whole system approach
  - Guide to commissioning and delivering tier 2 adult weight management services
  - Guide to commissioning and delivering tier 2 weight management services for children and their families
  - Healthy weight environments: using the planning system
  - Whole systems approach to obesity

# 1.19 Planning and commissioning services and interventions for all ages

### Planning and funding services and interventions

- 1.19.1 Identify an obesity partnership group to work on joint approaches to reduce obesity and overweight in line with Public Health England's 'Whole systems approach to obesity', <u>Guide to commissioning and delivering tier 2 weight management services for adults</u>, and <u>Guide to commissioning and delivering tier 2 weight management</u>
  services for children and their families. [2012, amended 2024]
- 1.19.2 Ensure overweight and obesity management services are accessible, with no upper limit on either BMI or age for referral. Include services suitable for people with different degrees of obesity and complexity of needs, including people with very high BMI, those aged 65 or over, people with learning disabilities or severe mental health conditions. [2024]

For a short explanation of why the committee made the 2024 recommendation and how it might affect services, see the <u>rationale and impact section on planning and funding services and interventions</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review E: increasing uptake of weight management services in children, young people and adults.

### Key components of interventions

- 1.19.3 Commission or recommend overweight and obesity management interventions for adults that focus on effective overweight and obesity management and:
  - are multicomponent, covering dietary intake, physical activity and behaviour change
  - adopt a respectful, non-judgemental approach
  - monitor weight and participants' personal goals throughout the programme
  - monitor indicators that people are engaged and meeting their goals (for example for fruit and vegetable intake or amount of physical activity) and use a variety of methods to encourage behaviour change in relation to:
    - problem solving
    - goal setting
    - how to carry out a particular task or activity
    - helping the person identify sources of support (such as friends and family or workplace programmes)
    - self-monitoring of weight and behaviours that can affect weight
    - feedback from participants on their own progress and their views of the overall programme. [2014]
- 1.19.4 Commission or recommend interventions for adults that:

- include achievable goals for weight loss that are agreed for different stages, including goals for the first few weeks, end of the programme or referral period (and for 1 year)
- include specific dietary goals (for example, for a clear energy intake or a specific reduction in energy intake) in line with the <a href="Department of Health and Social Care advice on weight management">Department of Health and Social Care advice on weight management</a> and tailored to the person's needs (note: the price of any recommended dietary approaches should not be prohibitive; individual advice from a Registered dietitian or Registered nutritionists may be beneficial)
- help the person track their weight and the progress they have made towards individual goals throughout. [2014]

#### 1.19.5 Ensure interventions:

- include sustainable ways the person can reduce sedentary behaviour and fit more physical activity into everyday life over the long term (for example, walking)
- take any medical conditions the person may have into account when planning any physical activity sessions
- have a qualified physical activity instructor leading any supervised activity sessions; for example, a physiotherapist or a practitioner member of the CIMSPA (Chartered Institute for the Management of Sport and Physical Activity)
- last at least 3 months, with weekly or fortnightly sessions
- monitor and review progress toward individual goals throughout the intervention
- are developed by a multidisciplinary team that includes healthcare professionals with expertise in overweight and obesity management, nutrition, psychology or physical activity
- are run by staff who are trained in delivering overweight and obesity management interventions and take part in regular professional development sessions. [2014]

- 1.19.6 Commission and recommend interventions for adults that encourage people to make lifelong behavioural changes and prevent future weight gain, by:
  - fostering independence and self-management (including self-monitoring)
  - encouraging dietary behaviours that support weight maintenance and can be sustained in the long term (for example, emphasise that national programmes that promote healthy eating like NHS Better Health can support overweight and obesity management)
  - emphasising the wider benefits of keeping up levels of physical activity over the long term
  - discussing strategies to overcome any difficulties in maintaining behavioural changes
  - encouraging family-based changes
  - discussing sources of ongoing support once the intervention or referral period has ended (opportunities could include the programme itself, online resources or support groups, other local services or activities, and help from family or friends). [2014, amended 2024]
- 1.19.7 Tailor interventions to support the needs of different groups. For example by holding sessions that are men- or women-only, or at different times of the day (such as interventions for children outside school hours, and ones for adults outside common working hours), and at venues that have good transport links or are used by a particular community. Think about providing childcare to support parents or carers attending sessions. [2014]

# Working together on local approaches to prevent overweight and obesity

### Involving local businesses and social enterprises

- 1.19.8 Engage local businesses in the wider approach to preventing overweight and obesity, and encourage them to promote health and wellbeing. For example:
  - workplace health initiatives that support and encourage employees (and their families) to adopt a healthy diet
  - developing and implementing active travel plans to encourage employees and their families to walk and cycle
  - ensuring the range and content of any food and drinks they sell does not create an incentive to overeat, and gives people the opportunity to eat healthily
  - actively supporting community initiatives on health and wellbeing (for example, as part of a social value approach to their business). [2012, amended 2024]
- 1.19.9 Encourage all local businesses and social enterprises to recognise their corporate health and wellbeing responsibilities in relation to:
  - products for example, ensuring the range and content of the food and drinks they sell does not encourage or incentivise to overeat and gives people the opportunity to eat healthily
  - wider social interests such as actively supporting wider community initiatives on health and wellbeing. [2012]

See also NICE's guidance on physical activity in the workplace, preventing cardiovascular disease, alcohol-use disorders and type 2 diabetes, and Public Health England's physical activity, healthy eating and healthier weight toolkit for employers.

### Service and intervention specifications and equipment

- 1.19.10 Follow Public Health England's guide to delivering and commissioning tier 2 adult weight management services and commission services and interventions that meet the measures set out in the National Obesity Audit advice for the Community Services Data Set, and Public Health England's 'Adult weight management: key performance indicators'. [2014, amended 2024]
- 1.19.11 Ensure equipment and facilities for overweight and obesity management interventions meet the needs of most people who are living with overweight or obesity. For example, providers of services and interventions should ensure there are large blood pressure cuffs and suitably sized chairs without arms. Any new scales purchased should be able to accurately weigh everybody using the service. Agree a process for using equipment from more specialist services, such as hospital weighing scales, when needed. [2014, amended 2024]
- 1.19.12 Ensure scales used by overweight and obesity management interventions for monitoring people's weight are regularly calibrated. [2014]
- 1.19.13 Equip specialist settings (including paediatric settings) for treating people who are living with severe obesity with, for example, suitable seating, suitable toilets and adequate weighing and monitoring equipment. Ensure hospitals have access to specialist equipment such as larger scanners and beds when providing general care for people who are living with severe obesity. [2006, amended 2024]

# Raising awareness of overweight and obesity management options

#### Raising awareness among commissioners and providers

1.19.14 Ensure local or regional strategic partnerships are:

- aware of, and committed to, the overweight and obesity strategy
   in the joint local health and wellbeing strategy
- aware of the impact of obesity on other priorities. [2012]
- 1.19.15 Ensure overweight and obesity prevention interventions are highly visible and easily recognisable. To increase recognition and minimise costs, think about adapting a widely known campaign (such as NHS Healthier Families) for use locally. [2012]
- 1.19.16 Ensure partners have shared vision, speak with a common voice and are clearly identifiable to the community. Promote all relevant activities using the same overweight and obesity management campaign materials and use this branding consistently over the long term. [2012]
- 1.19.17 Work with partners and the local media to advocate for action on overweight and obesity. **[2012]**
- 1.19.18 Make the relevance of a wide range of initiatives for managing overweight and obesity clear, for example in annual reports. [2012]
- 1.19.19 Ensure all those commissioning overweight and obesity management services are aware of:
  - the number of people living with overweight or obesity locally, including any variations between different groups
  - the effect of the local environment and health inequalities on the prevention and management of obesity
  - the local overweight and obesity management pathway and the role of overweight and obesity management services in the local strategic approach to preventing and managing overweight and obesity
  - the range of interventions that could be commissioned locally (see the <u>sections on service and intervention specifications and</u> <u>equipment</u> and <u>reviewing success</u>)

 opportunities to continue professional development or any training available on overweight and obesity management.
 [2024]

#### Raising awareness among health and social care professionals

- 1.19.20 Raise awareness of overweight and obesity management interventions among health and social care professionals who may refer people to them. This includes GPs and staff involved in the National Child Measurement Programme and the Healthy Child Programme. For example, publicise professional networks and ensure staff are familiar with the interventions available and how to make referrals (see also the <a href="National Child Measurement">National Child Measurement</a>
  <a href="Programme: operational guidance">Programme: operational guidance</a>). [2024]</a>
- 1.19.21 Make online and social media resources available and accessible for health and social care professionals to share with adults, children, young people and their family and carers. [2024]

### Raising public awareness

These recommendations are for local or regional strategic partnerships.

- 1.19.22 Think about the following in messages about weight and obesity:
  - which media types will best reach the intended groups
  - tailoring language to the situation or intended audience (for example, using 'healthier weight' rather than 'preventing obesity', talking more generally about health and wellbeing, or mentioning specific community issues)
  - using non-judgemental language and non-stigmatising images
  - using materials that include a variety of body shapes, disabilities and ethnicities
  - using local insight to help develop communications for subgroups within a community or specific at-risk groups. [2012, amended 2024]

- 1.19.23 Engage with children's centres, libraries, the local media, schools and colleges, and professional and voluntary organisations working with children, young people and adults to raise awareness of <a href="mailto:behavioural overweight and obesity management services">behavioural overweight and obesity management services</a> and <a href="mailto:interventions">interventions</a> for children, young people and adults. Publicity could include:
  - who the intervention is for (for interventions for children and young people this includes age range, eligibility criteria, and the level of family involvement needed)
  - how to enrol (including whether participants can self-refer or need a formal referral from a healthcare professional)
  - · aims, and type of activities involved
  - the time, location, length of each session, and the number of sessions
  - general public health messages such as moving more and eating more fruit and vegetables. [2024]
- 1.19.24 Ensure the local population is aware of:
  - the health and potential psychosocial benefits of having and maintaining a healthier weight at any age
  - the range of overweight and obesity management services available locally and nationally
  - local sources of information and advice such as GPs, practice nurses, health visitors and pharmacists
  - national sources of accurate information and advice.

Include details of information sources in all communications about overweight and obesity. [2024]

1.19.25 Maintain an up-to-date list of local overweight and obesity management interventions for adults, children and young people. Regularly share the list, or make it accessible, to organisations in the public, community and voluntary sectors. [2024]

For a short explanation of why the committee made the 2024 recommendations and how they might affect services, see the <u>rationale and impact section on raising awareness of overweight and obesity</u> management options.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review E: increasing uptake of weight management services in children, young people and adults.

### Reviewing interventions for adults

These recommendations are for those providing interventions.

#### **Reviewing success**

- 1.19.26 Collect evidence for health and wellbeing boards showing that interventions:
  - are effective at 12 months or beyond (the following programmes currently available in the UK have been shown to be effective at 12 to 18 months: [in alphabetical order] Slimming World and Weight Watchers)
  - continue to meet core components and best practice criteria for commissioning (see the <u>section on key components of</u> <u>interventions</u>) [2014, amended 2024]

#### Collecting, assessing and sharing information about participants

1.19.27 Ensure overweight and obesity management interventions contact participants 12 months after the intervention is completed. This could be done by intervention providers or an additional commissioned service. Work with all referrers and providers to develop systems to share relevant information about people referred to overweight and obesity management interventions, in line with information governance and data protection requirements.

[2014]

# 1.20 Planning and commissioning interventions for children and young people

See also the <u>section on raising awareness of overweight and obesity</u> management options.

- 1.20.1 When commissioning interventions, take into account the needs of children and young people who are living with obesity or overweight and have special needs or disabilities. This could include offering specific interventions, if available, or making reasonable adaptations to mainstream interventions (including training staff), and evaluating both. [2013]
- 1.20.2 Ensure those with more complex needs, their families and carers, have a contact in specialist services who can help them manage their weight. [2013]

### Involving a multidisciplinary team for children and young people

- 1.20.3 Develop the components of <u>behavioural overweight and obesity</u>

  <u>management interventions</u> with the input of a multidisciplinary

  team. [2024]
- 1.20.4 The multidisciplinary team should comprise professionals who specialise in children, young people and overweight and obesity management, including:
  - a Registered dietitian or Registered nutritionist
  - a physical activity specialist
  - a behaviour-change expert, such as a health promotion specialist
  - a health or clinical psychologist, or a child or adolescent psychiatrist, to provide expertise in mental wellbeing
  - a paediatrician or paediatric nurse
  - a community-based health professional (such as a public health nurse). [2013]

1.20.5 Ensure intervention content is regularly reviewed and updated by the multidisciplinary team. [2013]

For a short explanation of why the committee made the 2024 recommendation and how it might affect services, see the <u>rationale and impact section on involving a multidisciplinary team for children and young people.</u>

Full details of the evidence and the committee's discussion are in evidence review G: effectiveness and acceptability of weight management interventions in children and young people living with overweight and obesity.

### **Contracts and intervention specifications**

- 1.20.6 Ensure the contract or intervention specification requires that height and weight are measured and that both BMI and BMI for age and sex are recorded for children and young people:
  - at start and end of the intervention
  - whenever an opportunity arises during the year after completion.
     [2013, amended 2024]
- 1.20.7 Specify in contracts any groups that may be at risk of health inequalities, such as children and young people from ethnic minority backgrounds, or from deprived or disadvantaged neighbourhoods. [2013]

### Supporting interventions in the long term

1.20.8 Dedicate long-term, protected resources to support the development, implementation, delivery, promotion, monitoring and evaluation of overweight and obesity management interventions for children and young people. See the <u>section on evaluating</u> <u>effectiveness (principle 7) in NICE's guideline on behaviour change: general approaches. [2013]</u>

# Monitoring and evaluating services and interventions

People have the right to be involved in discussions and make informed decisions about their care, as described in <a href="NICE's information on making">NICE's information on making decisions about your care.</a>

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Health and social care professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity.
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- People's experience in adult social care services
- Service user experience in adult mental health
- Shared decision making
- Transition from children's to adults' services.

#### Read this guideline alongside:

- NICE guidelines on behaviour change: digital and mobile health interventions, behaviour change: individual approaches, eating disorders, and looked after children and young people
- the <u>National Obesity Audit</u>
- Public Health England's Whole systems approach to obesity and weight management interventions: standard evaluation framework
- the UK Chief Medical Officers' physical activity guidelines

- the NHS Eatwell guide.
- the <u>UK government's childhood obesity: a plan for action</u> and <u>Childhood obesity: applying All Our Health guidance</u>.

#### Read this section alongside:

- Public Health England's:
  - Adult weight management: key performance indicators
  - Standard evaluation framework for weight management interventions
  - Guide to commissioning and delivering tier 2 adult weight management services
- NHS Digital's Community services data set
- the National Obesity Audit

These recommendations are for commissioners and providers of overweight and obesity services

#### 1.21 Data to collect

- 1.21.1 Measure a broad range of outcomes and use validated tools to capture the full benefits of a sustainable, integrated health and wellbeing strategy. These include:
  - anthropometric measures such as BMI or waist-to-height ratio
  - indicators of dietary intake (for example intake of fruit and vegetables or sugar-sweetened drinks), physical activity (for example time spent in moderately vigorous activities such as brisk walking) or sedentary behaviour (for example leisure-based screen time or car use)
  - prevalence of obesity-related diseases
  - wider health outcomes such as indicators of mental health and wellbeing, improvements in self-esteem and quality of life

- process outcomes such as service use, engagement of groups subject to health inequalities groups, establishment or expansion of community groups
- indicators of structural changes (such as changes to procurement contracts).

(See the <u>UK government's standard evaluation framework for</u> weight management interventions for other possible outcome measures.) [2014]

- 1.21.2 Consider collecting and assessing other outcomes at the end of the intervention, such as changes in:
  - dietary habits, physical activity and sedentary behaviour
  - self-esteem, depression or anxiety
  - health outcomes, such as blood pressure. [2014]

# 1.22 Sharing and using the results

1.22.1 Log data in the National Obesity Audit and ensure all monitoring and evaluation results are accessible and easy to use by all who can use them in their work, both in the local community and nationally, including those involved with obesity prevention, local groups and networks, the media and the public. [2012]

# 1.23 Additional principles on monitoring provision for children and young people

These recommendations are for commissioners and providers.

- 1.23.1 Ensure monitoring focuses on sustaining changes in the longer term, including reports on the following data:
  - the number of children and young people taking part in the intervention
  - the percentage who complete it

- the percentage followed up at 6 months and 1 year after completion
- BMI and BMI adjusted for age and sex:
  - at the start and end of the intervention
  - 6 months after completing the intervention and
  - 1 year after completing the intervention. [2013]
- 1.23.2 Ensure data collection tools are validated for the age range or population group covered by the intervention and are feasible and affordable in practice settings. Do not rely on self-reported measures of height or weight, or interpretations of BMI based on them. [2013]
- 1.23.3 Monitor any variation in the numbers of children and young people who join and who complete the intervention, and the proportion of people retained by the intervention. Analyse this by population subgroup. [2013]

# Terms used in this guideline

# Behavioural overweight and obesity management interventions

Interventions that aim to reduce a person's energy intake and help them to be more physically active by encouraging behaviour change. They can focus on diet, physical activity, behaviour change or any combination of these elements. They may include interventions, courses or clubs that:

- accept people through self-referral or referral from a health or social care practitioner
- are provided by the public, private or voluntary sector
- are based in the community, workplaces, primary care or online.

## Behavioural overweight and obesity management services

Services (sometimes called tier 2 services) that are locally based and help people in a particular location who are living with overweight or obesity. They can be made up of 1 or more behavioural overweight and obesity management interventions.

# Coproduction

Professionals, community representatives and people using local services, their families and carers, working together in an equal and reciprocal relationship to develop and deliver action plans on obesity and overweight.

# **Healthy weight**

In this guideline we use 'healthy weight' to mean a BMI between 18.5 kg/m<sup>2</sup> and 24.9 kg/m<sup>2</sup>. A higher BMI, especially with central adiposity, increases the risk of developing health conditions such as type 2 diabetes and cardiovascular conditions. But having a higher weight does not in itself mean that someone is unhealthy, and there are many reasons why a person of any weight might be healthy or unhealthy.

# **Neurodevelopmental conditions**

For this guideline, neurodevelopment conditions mean conditions in people over 25 that affect the development of brain or neurological system. These may mean that an adult needs special health and educational support. These can include attention deficit hyperactivity disorder [ADHD], autism, speech and language disorders, and sensory processing issues (including avoidant or restrictive food intake disorder). For people under 25 we use the term special educational needs and disabilities.

# Overweight and obesity management pathway

The various routes that people living with overweight and obesity may follow through and between local prevention or treatment services. People can also be referred to specialist services.

# Overweight and obesity management services

A wide range of services focusing on overweight and obesity management. Definitions vary locally but often include:

#### FINAL DRAFT

- universal services such as health promotion or primary care (sometimes referred to as tier 1 services)
- <u>behavioural overweight and obesity management services</u> (sometimes referred to as tier 2 services)
- specialist overweight and obesity management services (sometimes referred to as tier 3 and tier 4 services).

## Special educational needs and disabilities (SEND)

For this this guideline we use 'special education needs and disabilities' when talking about children, young people and adults aged 25 or under who have a learning difficulty or disability that means they need special health and educational support. For people over 25 we use the term <a href="neurodevelopmental">neurodevelopmental</a> conditions.

# Specialist overweight and obesity management services

Specialist primary, community or secondary care-based services led by a multidisciplinary team, offering a combination of nutritional, psychological and surgical interventions, and medicines. These services can include but are not limited to tier 3 and tier 4 services.

### Recommendations for research

The guideline committee has made the following recommendations for research.

# Key recommendations for research

# 1 Identification in people from ethnic minority backgrounds

What approaches are effective and acceptable in identifying overweight, obesity and central adiposity in children, young people and adults from ethnic minority backgrounds? [2024]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on specific advice for people from ethnic minority backgrounds</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review D: identifying overweight and obesity in children, young people and adults.

### 2 Adverse effects of identification in children and young people

What are the adverse effects of identifying children and young people as living with overweight or obesity, particularly the risk of disordered eating and eating disorders? [2024]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on additional general principles for children and young people</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review D: identifying overweight and obesity in children, young people and adults.

# 3 Intermittent fasting in adults

What is the effectiveness and cost effectiveness of intermittent fasting in supporting adults in meeting their weight loss goals and maintaining their weight? [2024]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on intermittent fasting in adults</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review F: effectiveness of different diets in achieving and maintaining weight <u>loss</u>.

# 4 Surgical referral threshold for people who are unable to receive treatment for other conditions

What is the effectiveness and cost effectiveness of bariatric surgery in achieving weight loss and improving treatment outcomes in people who are unable to receive treatment for other health conditions (such as joint replacement surgery or fertility treatment) because they are living with obesity? [2023]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on surgical interventions</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review C: referral for <u>bariatric surgery</u>.

# 5 Surgical referral threshold for people from ethnic minority backgrounds

What is the effectiveness and cost effectiveness of bariatric surgery in achieving weight loss and maintaining a healthier weight in adults from ethnic minority backgrounds who are living with obesity? [2023]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on surgical interventions</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review C: referral for bariatric surgery.

### 6 Measurements for assessing health risks in adults

What are the most accurate and suitable measurements and boundary values to assess the health risks associated with overweight, obesity and central adiposity in adults of different ethnicities, particularly those from Black, Asian and ethnic minority backgrounds? [2022]

For a short explanation of why the committee made the recommendation for research, see the <u>rationale section on classifying overweight</u>, <u>obesity and central adiposity in adults</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review A: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in adults.

# 7 Measurements for assessing health risks in children and young people

What are the most accurate and suitable measurements and boundary values to assess the health risk associated with overweight, obesity and central adiposity in children and young people of different ethnicities, particularly those from ethnic minority backgrounds? [2022]

For a short explanation of why the committee made the recommendation for research, see the <u>rationale section on measures of overweight, obesity and central adiposity in children and young people</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review B: accuracy of anthropometric measures in assessing health risks associated with overweight and obesity in children and young people.

#### Other recommendations for research

### 8 Psychological therapies to address the effect of stigma

What is the effectiveness and acceptability of psychological therapies (acceptance and commitment therapy, compassion focused therapy, cognitive behavioural therapy, or a combination of these approaches or other approaches) to address the counterproductive effect of weight stigma in children, young people and adults? [2024]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on psychological therapies to address the effect of weight stigma</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review I: psychological approaches to address weight stigma in children, young people and adults.

### 9 Using waist-to-height-ratio in children and young people

What is the effectiveness of children and young people using waist-to-height ratio to measure their own central adiposity and what is the acceptability and what are the risks of this approach among this population? [2024]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on when to take and record</u>

<u>measurements in children and young people</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review D: identifying overweight and obesity in children, young people and adults.

# 10 Beliefs about weight

How do people's beliefs and attitudes about weight affect identification for, and the uptake and adherence to, overweight and obesity management interventions in children and young people? [2024]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on discussing the results with</u> children and young people, and their families and carers.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review H: effectiveness of healthy living programmes in preventing overweight and obesity in children and young people.

# 11 Behavioural interventions and long-term support in children and young people

What is the effectiveness and cost effectiveness of behavioural overweight and obesity management interventions that include long-term support in achieving and maintaining weight loss in children and young people? [2024]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on choosing interventions with</u> children and young people, and their families and carers.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review G: effectiveness of healthy living programmes in preventing overweight and obesity in children and young people.

### 12 Low-energy diets in people with type 2 diabetes

What is the effectiveness and cost effectiveness of low-energy diets on overweight and obesity in people with different durations of type 2 diabetes? [2024]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on low-energy and very-low-energy</u> <u>diets for adults</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review F:effectiveness of different diets in achieving and maintaining weight loss.

# 13 Low-energy and very-low-energy diets before treatment for other conditions

What is the effectiveness and cost effectiveness of low-energy and very-lowenergy diets in supporting adults who need to lose weight before receiving treatment for other health conditions in meeting and maintaining their weight loss targets? [2024] For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on low-energy and very-low-energy</u> diets for adults.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review F: effectiveness of different diets in achieving and maintaining weight <u>loss</u>.

### 14 Adverse events associated with different dietary approaches

What are the adverse events associated with different dietary approaches (for example, low-energy and very-low-energy diets, low-carbohydrate diets, intermittent fasting) for people living with overweight or obesity? [2024]

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on low-energy and very-low-energy</u> <u>diets for adults</u>.

Full details of the evidence and the committee's discussion are in <u>evidence</u> review F: effectiveness of different diets in achieving and maintaining weight loss.

# 15 Obesity management for people with a condition associated with an increased risk of obesity

What is the best way to deliver obesity management interventions for people with conditions associated with increased risk of obesity (such as people with a physical disability that limits mobility, a learning disability or enduring mental health difficulties)? [2014]

### 16 Bariatric surgery in children and young people

What are the long-term outcomes of bariatric surgery in children and young people living with obesity? [2014]

### 17 Follow-up care after bariatric surgery

Do postoperative interventions focusing on physical activity, behaviour and diet improve weight loss and weight-loss maintenance after bariatric surgery? [2014]

# 18 Long-term outcomes of bariatric surgery on people with type 2 diabetes

What is the long-term effect of bariatric surgery on diabetes-related complications and quality of life in people with type 2 diabetes compared with optimal medical treatment? [2014]

# 19 Long-term effect of very-low-calorie diets on people with a BMI of 40 kg/m<sup>2</sup> or more

What are the long-term effects of using very-low-calorie diets compared with low-calorie diets on weight and quality of life in people with a BMI of 40 kg/m<sup>2</sup> or more, including the impact of repeated cycle of weight loss and regain (also known as weight cycling)? [2014]

# 20 Lifestyle interventions for Black, Asian and other ethnic minority groups

How effective and cost effective are behavioural interventions for people from ethnic minority backgrounds at different BMI and waist-to-height ratio thresholds, compared with people from other backgrounds? [2013]

### 21 Comparative risks for different generations of immigrants

Can the same BMI and waist-to-height ratio thresholds be used in people from first-, second- and third-generation immigrants from Black, Asian or other ethnic minority backgrounds to identify health risks? [2013]

# 22 Behavioural interventions for children and young people with special educational needs and disabilities

What are the barriers to, and facilitators for, implementing behavioural overweight and obesity services for children and young people with special educational needs and disabilities living with overweight and obesity? [2013]

# 23 Effective approaches for children and young people with special educational needs and disabilities

Which approaches to overweight and obesity management are effective and cost effective for children and young people with special educational needs and disabilities living with overweight and obesity? [2013]

# 24 Long-term maintenance of weight loss in children and young people

Do children and young people who have met their weight-loss goals as a result of behavioural overweight and obesity interventions continue to maintain their weight in the long term and, if so, for how long? What characteristics of behavioural overweight and obesity interventions facilitate longer-term effectiveness? [2013]

### 25 Encouraging families and carers to engage with interventions

How can families and carers be encouraged to take responsibility for their child's overweight and obesity management and engage with behavioural overweight and obesity interventions? [2013]

# 26 Encouraging children and young people to engage with interventions

What are effective and appropriate ways (including digital services and apps) of encouraging children and young people living with overweight and obesity involved in overweight and obesity management interventions? [2013]

# 27 Barriers and facilitators for participation for children and young people

What are the barriers to, and facilitators for, participating in overweight and obesity management interventions for children and young people living with overweight and obesity and their families and carers? [2013]

# 28 Discussing National Child Measurement Programme measures with families and carers

How can the individual measures of the National Child Measurement Programme be best communicated to families and carers without causing distress? [2013]

# 29 Impact of families and carers on outcomes

What impact do families and carers have on the outcomes of overweight and obesity management interventions? [2013]

# 30 Who should deliver interventions for children and young people

Who is best placed to deliver behavioural overweight and obesity management interventions (including lay people) for children and young people living with overweight and obesity, and what are their training needs? [2013]

# 31 Comorbidity assessment tools for referral

What is the effectiveness of comorbidity assessment tools in referring children and young people living with overweight and obesity to specialist support?

[2013]

# 32 Single-figure cut-off points

What are the risks and benefits of developing single-figure cut-off points on BMI and waist-to-height ratio for people from ethnic minority backgrounds to help prevent diabetes and other conditions? [2013]

# 33 Awareness of risk among ethnic minority groups

Are people from ethnic minority backgrounds aware that they are at risk of type 2 diabetes and mortality at a lower BMI, compared with people from White backgrounds? [2013]

# 34 Practitioners and providers' awareness of risk in ethnic minority groups

Are healthcare professionals and overweight and obesity management service providers aware that people from ethnic minority backgrounds are at risk of type 2 diabetes and mortality at lower BMI and waist-to-height ratio thresholds compared with people from White backgrounds and if so, do they offer interventions based on this information? [2013]

# 35 Community-wide approaches to prevention

What factors are necessary for an effective and cost-effective communitywide approach to obesity prevention? [2012]

# 36 Monitoring and evaluating community-wide approaches

What is the most effective way to monitor and evaluate community-wide approaches to obesity? [2012]

# 41 Cost effectiveness of prevention interventions

What is the cost effectiveness of interventions to prevent or manage obesity in children, young people and adults in the UK? [2006]

# 42 Variability in effectiveness of interventions

How does the effectiveness of interventions to prevent or manage obesity vary by population group, setting and source of delivery? [2006]

# Rationale and impact

These sections briefly explain why the committee made the recommendations and how they might affect practice or services.

# General principles for all ages

Recommendations 1.1.1 to 1.1.8

# Why the committee made the recommendations

The committee noted a recurring theme in the evidence in that overweight and obesity can be complex and multifaceted, and can interact with many areas of

a person's life. They agreed on the need to take this into account in all aspects of care, because weight cannot be addressed in isolation. Based on their experience, they discussed and agreed a non-exhaustive list of factors related to the wider determinants and the context of overweight and obesity that healthcare professionals need to take into account. Many of these reflect health inequalities that may limit a person's ability to address overweight or obesity and are outside their control. The evidence included many accounts of negative experiences in which healthcare providers did not take these factors into account, so the committee highlighted that it was important to keep the context of the person's health, social circumstances and their openness to engage with change at the forefront when making a professional judgement.

The committee looked at evidence on the stigma associated with being identified as living with overweight or obesity. This highlighted that many people had experiences in which healthcare professionals had talked about their weight in an insensitive manner. These experiences made them feel wary and defensive when weight was brought up in subsequent discussions with healthcare professionals. The committee agreed that these negative experiences could be reduced if the context and appropriateness of the discussion or appointment was taken into account before starting a discussion. They agreed it was also important to respect a person's choice not to discuss their weight. The committee also acknowledged that cultural factors and health professionals' own feelings and sensitivities about weight may be relevant in conversations.

The committee were also concerned that negative experiences of discussions about overweight or obesity can have a profound effect on how the person feels about themselves and risk perpetuating or triggering overemphasis on body image and size. They were also concerned that this could contribute to disordered eating or eating disorders in young people so agreed that conversations need to be tailored to age, maturity and understanding to reduce this risk. They stressed the importance of sensitivity in all discussions linked to overweight and obesity, and outlined steps that can help healthcare professionals have these conversations. The committee also highlighted the

importance of using non-stigmatising language and images to promote a positive discussion, because stigma associated with obesity can affect people's mental and physical health. This can lead to further weight gain and make them less likely to engage with healthcare professionals. The committee noted existing resources and advice that could help conduct conversations in a sensitive and positive way.

# How the recommendations might affect practice

Most of these recommendations reflect current good practice. In some areas extra NHS resources may be needed to bring services in line, particularly where services are underprovided. More training could also be needed.

The recommendations tackling stigma in particular are expected to reduce people's distress during appointments and routine health checks, which will improve their quality of life and make them more likely to attend follow-up appointments. So longer-term NHS savings from more efficient and accessible weight management services are expected to offset any initial investments.

#### Return to recommendations

# Additional principles for children and young people

Recommendations 1.2.3 and 1.2.4

# Why the committee made the recommendations

The committee agreed that families and carers should take primary responsibility for behavioural changes in children and young people. But they recognised that it was appropriate for children to start to be empowered to manage their overweight or obesity around the age of 12, although this will vary depending on an individual child or young person's level of maturity and understanding. This is in line with <a href="NICE's guideline on babies">NICE's guideline on babies</a>, children and young people's experiences of healthcare, which highlights that children and young people under 16 can make decisions about their healthcare and consent to treatment if they are assessed to be Gillick competent.

The committee discussed situations in which weight or weight-related comorbidities posed a risk to the child or young person's health that would become a safeguarding concern if not addressed. They agreed that guidance was needed to assist with decisions that balance the need for person-centred care that respect the choice of child and young person (and that of their families or carers) about the care they receive with the duty of care to the child or young person when there is a serious risk to their long-term health.

The committee also considered the need to ensure that identifying the child or young person as living with overweight or obesity does not have a negative impact on them. The evidence highlighted that families and carers had concerns and anxieties about this, but there was little quantitative research measuring whether adverse effects occurred. The committee agreed this was an important gap in the evidence, so drafted a recommendation for research on the adverse effects of identification in children and young people, with a particular focus on the risk of developing eating disorders because they felt this was the most serious concern.

# How the recommendations might affect practice

Most of these recommendations reflect current good practice. The recommendations tackling stigma in particular are expected to reduce distress during appointments and routine health checks, which will improve their quality of life and make people more likely to attend follow-up appointments.

Resources may be needed for extra processes to identify overweight and obesity in childhood and for increased referrals to emotional health and wellbeing support and services, but costs are expected to be offset by future savings and the benefits of more targeted interventions.

#### Return to recommendations

# All early-years settings, nurseries, other childcare facilities and schools

Recommendations 1.6.1 to 1.6.8

# Why the committee made the recommendations

The committee reviewed findings from a very large evidence base on approaches to overweight and obesity prevention in children and young people. Despite the large volume of research, very few interventions showed evidence of effectiveness, particularly those that addressed diet or physical activity alone. They acknowledged that some interventions combining diet and physical activity components were effective, but overall the amount of change was small and not very clinically meaningful in reducing risk factors.

The National Child Measurement Programme 2022/23 report showed that the children living in the most deprived areas were more than twice as likely to be living with obesity as those living in the least deprived areas. Obesity prevalence was also highest in children from a Black African, Black Caribbean or Bangladeshi background. The committee suggested that obesity prevention approaches in early-years and school settings were particularly valuable because these settings can help shape healthier lifelong attitudes and behaviours.

Based on their expertise and experience, the committee highlighted some important principles that would apply to all settings. They agreed that it was important to prioritise improving the nutrition and activity levels of children and young people, that a whole-school approach was most likely to be effective, and that it was vital to involve families and carers.

The committee also agreed on the need to include obesity prevention measures as early as possible in settings such as nurseries and childcare facilities. They suggested this ought to include minimising sedentary activities during play time, and providing regular opportunities for enjoyable active play and structured physical activity sessions. This is because reducing sedentary behaviour can play a key role in health promotion and obesity prevention. They discussed whether this principle would apply to all settings and agreed it was important to include schools.

There are also some steps that settings can take to encourage healthy eating. The committee discussed the benefits of staff supervising and eating with children at mealtimes; and ensuring children and young people eat regular, healthy meals in a pleasant, sociable and inclusive environment free from other distractions. They noted that food in early-years settings is not covered by the same statutory nutritional standards as school meals, but they agreed there is the same need to adapt catering in early-years settings to accommodate different cultural preferences and beliefs while maintaining nutritional standards. They also agreed it was important for settings to have reward strategies not based on food, to encourage children to develop a range of healthy motivational tools.

The committee discussed case study evidence showing a variation in the length of lunch breaks in schools and expressed concern that some schools have shortened the lunch break to 30 minutes. They were concerned that this may not allow children and young people adequate time to finish their meals and could also contribute to young people opting for unhealthier food choices, such as fast food, that can be consumed quickly. They did not identify evidence on a specific length of time that children and young people need to finish their meals, but agreed it was still important to highlight this issue.

The committee noted that many commercial obesity prevention interventions are available for local authorities to use in schools and early-years settings. They reflected on the considerable growth in the number of interventions available but noted that a limited number have been found to be clinically and cost effective. They agreed on the need for local authorities to look at evidence for the intervention when deciding whether to use it.

Some local authorities have developed and implemented their own interventions, based on the principles of obesity prevention. The committee suggested some other guidance and resources that can be used to develop effective interventions. Although the evidence did not identify 1 specific approach to obesity prevention that was effective, the committee agreed various factors that could help. These included taking into account the views of children and young people, any differences in preferences based on sex, culture or belief, and any individual medical or sensory needs.

The committee also highlighted the importance of adapting physical education, sport and other physical activity for children and young people with special educational needs and disabilities (SEND) to promote inclusion and minimise health inequalities.

The committee did not make any recommendations for further research because there is already a large evidence base in this area. But they noted that it was important for future research to focus on outcomes such as changes in the prevalence of overweight and obesity, rather than BMI alone, because this may be more accurate in determining the effectiveness of interventions.

# How the recommendations might affect practice

The recommendations are in line with current practice and are unlikely to lead to a significant cost impact. The links to guidance and resources could help staff plan interventions.

#### Return to recommendations

# Specific advice for people from ethnic minority backgrounds

Recommendations 1.8.1 to 1.8.3

# Why the committee made the recommendations

The committee reviewed evidence on risk factors for people from Black, Asian and other ethnic minority backgrounds. There was very little direct evidence but, based on their experience, the committee agreed that people from Black and Asian backgrounds – as well as people from many ethnic minority backgrounds not covered by the evidence – have a higher risk of central adiposity and have an increased cardiometabolic health risk and risk of weight-related health conditions at lower BMI thresholds. They agreed that it was important to ensure that this information was explained in suitable formats and shared with the individuals and communities affected so they could take action to reduce these risks. They also noted the need to raise awareness of these risks among healthcare professionals.

The committee also agreed there was a need for more robust information about effective and acceptable approaches to identifying people from ethnic minority backgrounds who are at risk from overweight or obesity. So they made a <u>recommendation for research on identification in people from ethnic minority backgrounds</u> to inform future guidance.

# How the recommendations might affect practice

Raising awareness of the use of lower BMI thresholds in people from Black, Asian and other ethnic minority backgrounds may increase the number of people who use overweight and obesity management services. But this could reduce levels of overweight and obesity, and thereby reduce the costs of treating related conditions for the NHS and wider system, including social care systems that are particularly affected by long-term conditions associated with obesity.

#### Return to recommendations

# When to take and record measurements in adults

Recommendations 1.9.1 to 1.9.4

#### Why the committee made the recommendations

Evidence on diagnostic overshadowing (attributing symptoms to weight rather than a potential comorbid condition that could be unrelated) showed that people often felt that the issue they presented with was neglected in favour of discussions about weight, which could be stigmatising and unhelpful. Lay members on the committee confirmed that this was a very common experience. The studies showed that people felt it was important that healthcare professionals address the presenting condition first, before raising the topic of weight.

The evidence showed that consent and choice in whether to discuss weight was a key factor in whether people found conversations constructive and respectful, or stigmatising and intrusive. The committee agreed their experience aligned with this finding and that it was important for healthcare professionals to ask permission before discussing weight, to acknowledge

that some people will not want to be weighed or to be told their weight, and to respect people's wishes on these points.

They also noted the need to measure waist circumference in people with a BMI below 35 kg/m², in accordance with the section on taking measurements. This is in line with advice provided in <a href="Public Health England's guidance on adult weight management: short conversations with patients">Public Health England's guidance on adult weight management: short conversations with patients</a>, which also promotes weight being measured, recorded and discussed as part of routine consultation.

# How the recommendations might affect practice

Weight and height might be measured more often, possibly increasing the length of appointments. Changes to how and when weight is discussed could help people feel less stigmatised, and therefore more welcoming of an intervention that could have a positive effect on both their health and NHS resources in the long term.

This more flexible approach is not expected to increase NHS and other public sectors resources significantly. It is expected to lead to more appropriate and up-to-date measurements being recorded. This will increase efficiency in identifying people living with overweight or obesity, and. It may also lead to more efficient and meaningful data analysis and the sharing of good practice.

#### Return to recommendations

# How to take measurements and measures of overweight, obesity and central adiposity in adults

Recommendations 1.9.5 to 1.9.8

# Why the committee made the recommendations

The committee looked at evidence from studies on the accuracy of different measures for predicting or identifying health conditions associated with overweight and obesity, including type 2 diabetes and cardiovascular disease. The quality of the evidence was mixed. Most studies included information on how accurate the measures were at predicting or diagnosing the health risks

associated with overweight and obesity, in people of different ethnicities. Overall, the studies showed that BMI, waist circumference, waist-to-hip ratio and waist-to-height ratio could all accurately predict or identify weight-related conditions. The committee noted that BMI is still a useful practical measure, particularly for defining overweight and obesity. But they emphasised that it needs to be interpreted with caution because it is not a direct measure of central adiposity. The committee highlighted that waist-to-height ratio offers a truer estimate of central adiposity by using waist circumference in the calculation. Based on evidence and their experience, they agreed that using waist-to-height ratio as well as BMI would help give a practical estimate of central adiposity in adults with BMI under 35 kg/m². This would in turn help professionals assess and predict health risks. But because people with a BMI over 35 kg/m² are always likely to have a high waist-to-height ratio, the committee recognised that it may not be a useful addition for predicting health risks in this group.

# How the recommendations might affect practice

Encouraging self-measurement is in line with recent changes in practice, particularly the increase in carrying out initial assessments by phone. It has already become standard practice to use self-reported measurements such as weight, blood pressure readings and blood sugar levels for conditions like diabetes.

Using waist-to-height ratio as well as BMI would be likely to have minimal cost impact because tape measures are already routinely available in NHS settings for measuring waist circumference.

Community pharmacies have been involved in taking measurements as well as it being done in general practice. NHS England's Healthier weight competency framework highlights that healthcare professionals involved in identification of overweight and obesity should be able to accurately measure and classify weight status. With the addition of waist-to-height ratio, it is important that training is available so that measurements can be taken by trained personnel.

Currently, there are no established NHS calculators for waist-to-height ratio. But resources such as the NHS obesity page can be used to explain how to take waist measurements and calculate the ratio. Extra training programmes may need to be developed to help healthcare professionals understand central adiposity and conduct waist measurement in a sensitive manner and with care, especially in people with specific conditions such as eating disorders. This will increase training costs. There may also be a cost increase associated with the extra staff time needed to teach people how to measure themselves and calculate waist-to-height ratio. But the committee agreed that these extra costs are unlikely to result in a significant resource impact and will be balanced out by the long-term health improvements such as decreased risk of developing diabetes or cardiovascular disease.

#### Return to recommendations

# Classifying overweight, obesity and central adiposity in adults

Recommendations 1.9.10 to 1.9.15

# Why the committee made the recommendations

BMI is the main measure for defining overweight and obesity, and the committee did not alter the BMI categories for the general population. But, based on their expertise, they agreed it was important to estimate central adiposity when assessing future health risks, including for people whose BMI is in the healthy weight category. The committee also highlighted the need for caution when interpreting BMI in adults with high muscle mass because it may be less accurate in this group.

Age-related changes in the body are not well captured by BMI. The committee agreed that BMI should therefore be interpreted with caution in people aged 65 and over, because their functional capacity may be reduced because of conditions such as age-related spinal disorders or sarcopenia. They also recognised that slightly higher BMI in older people can have a protective effect (for example, reduced risk of all-cause mortality) because they are less likely to be experiencing undernutrition. So it is important for professionals to evaluate the balance of these risks when interpreting BMI.

The committee also highlighted that people from Black, Asian and minority ethnic family backgrounds are prone to central adiposity and have an increased cardiometabolic health risk at lower BMI thresholds. For example, studies in people of South Asian and Chinese family backgrounds showed an increased risk at a BMI of 21 kg/m² to 26 kg/m², whereas people from White family backgrounds showed increased risks at 25 kg/m² to 29 kg/m².

There was also some evidence for using lower BMI thresholds for people from Middle Eastern (Arab and Iranian), Black African, Black Caribbean and other Asian (Japanese, Korean and Thai) family backgrounds. For these groups, studies identified an increase in risk at BMI values that ranged from 21 kg/m² to 30 kg/m² but most were below 25 kg/m². The committee noted that these lower thresholds are in line with international guidance and are already used in practice to refer people from these family backgrounds to overweight and obesity services.

Although NICE found no evidence on the thresholds for obesity classes 2 and 3 in people of these family backgrounds, the committee consensus was that it is generally good practice to reduce the thresholds used for the general population by about 2.5 kg/m². This would mean that the threshold for obesity class 2 would be lowered to roughly 32.5 kg/m², and for class 3 to 37.5 kg/m² in these populations. Public Health England guidance on adult weight management and the British Obesity and Metabolic Surgery Society guidance on accessing tier 4 services also endorsed reducing the thresholds.

In line with their recommendations for other populations, the committee used the terms overweight and obesity instead of risk levels to describe thresholds in people with a South Asian, Chinese, other Asian, Middle Eastern, Black African or African—Caribbean family background. They agreed that in their experience there was more stigma attached to talking about risk than overweight or obesity. They noted that terms such as 'high risk' could result in anxiety and overinterpretation of risk more than terms such as 'living with obesity'.

The committee also discussed the accuracy of waist-to-height ratio boundary values in predicting and identifying health risks. The evidence showed that the cut-off from individual studies was generally around 0.5 for all ethnicities and sexes, which was in line with the wider evidence. They agreed that waist-to-height ratio could be used to define central adiposity in adults, and that a range of 0.5 to 0.59 corresponds to increased health risks. The committee noted that a waist-to-height ratio of 0.6 or more indicates a further increase in risk.

The committee agreed that a key benefit of using waist-to-height ratio is that the classification is the same for all ethnicities and sexes. It can also be useful in adults with high muscle mass, for whom BMI may be less accurate.

The committee also noted the boundary value of 0.5 could be communicated in a simple and memorable way with the message: 'keep your waist to less than half your height'.

Although there was a large evidence base, the committee noted a lack of evidence on the accuracy of methods for predicting future risks for people of some ethnicities. Few studies were based in the UK, so the evidence might not reflect how accurate different measures might be when used in a UK context. Therefore, the committee highlighted the need for more research on measurements and boundary values for different ethnicities and made a recommendation for research on measurements for assessing health risks in adults.

# How the recommendations might affect practice

Using lower BMI thresholds in people from Black, Asian and minority ethnic family backgrounds will increase the number of people who are eligible for overweight and obesity services. But this could reduce levels of overweight and obesity, and thereby reduce the costs of treating obesity-related conditions for the NHS and wider system, such as social care systems.

There may be challenges in using BMI or waist-to-height ratio in people who have a physical disability, some physical conditions (such as scoliosis) or

learning disabilities because people may be unable to get on scales independently or be lifted safely. In such circumstances, reasonable adjustments would be needed for adults, for example using seated or hoist scales, or scales that can used for wheelchairs (including moulded wheelchairs). Measurements may also need to be modified, for example using sitting height or demi-span (the distance between the mid-point of the sternal notch and the finger roots with the arms outstretched laterally) instead of overall height, meaning specialist assessment may be needed. It may also be challenging to take measurements in people who are housebound because it may not be possible to access equipment such as specialist scales during home visits.

#### Return to recommendations

# When to take and record measurements in children and young people

Recommendations 1.10.1 to 1.10.6

# Why the committee made the recommendations

There are 2 established programmes for identifying overweight or obesity in children and young people. The Healthy Child Programme measures children under 5, and the National Child Measurement Programme measures children aged 4 to 5 and 10 to 11 while they are at school. The committee noted that measurements from these programmes are often not given to families or carers or to their GPs, so they are often not followed up. So they agreed it was important for identification to also take place outside these programmes. The committee also recognised that processes were needed to identify obesity and overweight in children and young people outside the age groups measured by the National Child Measurement Programme, and those who are not in mainstream state education (for example, some children with SEND or some looked-after children) and so are not covered by the programme.

The evidence reviewed showed that adults often felt that when they presented with another health issue this was neglected in favour of discussions about weight, which could be stigmatising and unhelpful. Although there was no

direct evidence for children and young people, the committee agreed – based on their experience and expertise – that these groups were likely to have similar experiences.

The committee's experience aligned with the evidence that parents who did not have the opportunity to consent to their child's measurements being taken experienced negative emotions if they were told their child was living with overweight or obesity. So they decided that it was important to ask children and young people, and their families and carers, for permission to discuss weight.

The committee agreed it was particularly important to record measurements for children and young people because measures of growth are essential markers of general health and development. They therefore highlighted some scenarios when measurements could be taken by a range of practitioners. This is in line with the <a href="Public Health England's guidance on short conversations with children and their families about weight management">Public Health England's guidance on short conversations with children and their families about weight management</a>.

The committee discussed measuring and calculating waist-to-height ratio while taking other measurements in children and young people. There is evidence supporting this approach in adults, but it is less established for children and young people. So, based on their expertise and experience, they concluded it should only be used to supplement the standard height and weight measurements. They also discussed the possibility that some children and young people could potentially calculate their own waist-to-height ratio. But because there was no evidence and no clear consensus on either the effectiveness or the acceptability of this, the committee made a recommendation for research on using waist-to-height-ratio self-measurements in children and young people.

The committee discussed and agreed with the advice in Public Health England's guidance on conversations with children and their families about overweight and obesity management. This states that when families or carers seek overweight and obesity management based on the letter informing them

of their child's National Child Measurement Programme results, the measurements should be repeated to ensure that records are kept up to date.

# How the recommendations might affect practice

It is possible that weight and height will be measured more often, which could lead to longer appointments. But this is expected to lead to better identification of children and young people living with overweight or obesity, which could reduce costs in the longer term. So this is not expected to increase NHS resources significantly.

#### Return to recommendations

# Measures of overweight, obesity and central adiposity in children and young people

Recommendation 1.10.7

# Why the committee made the recommendation

The committee looked at evidence on the accuracy of different measures for predicting or identifying health conditions associated with overweight and obesity, including type 2 diabetes and cardiovascular disease. The quality of the evidence was mixed. Some studies included information on how accurate measures were at predicting or diagnosing the health risks associated with overweight and obesity in children and young people of different ethnicities.

Overall, the committee agreed that the studies showed that BMI, waist circumference and waist-to-height ratio could all be used to accurately predict or identify weight-related conditions when they were adjusted for age and sex. The same was true of waist-to-height ratio when it was not adjusted for age and sex. They discussed that BMI z-score adjusted for sex and age tended to be the most accurate measure for identifying different health conditions, but waist-to-height ratio was often equally accurate and, in some studies, more accurate. (BMI z-score is also known as BMI standard deviations [SDs], which indicate how many units a child's BMI is above or below the average BMI value for their age group and sex.)

Based on the evidence and their clinical expertise, the committee agreed that BMI is a useful practical measure for estimating and defining overweight and obesity. However, they noted that BMI should not be interpreted in the same way for children and young people as for adults. Healthcare professionals should use charts that are specific to children and young people and adjusted for age and sex. The committee also noted that waist-to-height ratio is a truer estimate of central adiposity, which is related to health risks.

The committee agreed that special growth charts may be needed when assessing children and young people with cognitive and physical disabilities, including those with learning disabilities. They noted that growth charts for children and young people with Down's syndrome are available from the Centres for Disease Control and the Royal College of Paediatrics and Child Health.

The committee agreed that the evidence for using waist-to-height ratio as a practical estimate for central adiposity to assess and predict health risk in children and young people was not as good as the evidence for adults. They agreed that it could still be useful as an indication of future health risks. But they stated that more research was needed on the accuracy of different measures and made a recommendation for research on measurements for assessing health risks in children and young people.

# How the recommendation might affect practice

There may be challenges in using BMI or waist-to-height ratio in children and young people with physical disabilities, some physical conditions (such as scoliosis) or learning disabilities. Reasonable adjustments would also be needed for children and young people using wheelchairs (including moulded wheelchairs) such as using seated or hoist scales, or scales that are suitable for wheelchairs. And although there is published guidance on supporting people with learning disabilities in overweight and obesity management, there are no validated proxy measurements for height in children and young people (for example, using their sitting height or demi-span to estimate their height). This makes taking measurements difficult in children and young people with physical disabilities or learning disabilities.

#### Return to recommendation

# Classifying overweight, obesity and central adiposity in children and young people

Recommendations 1.10.9 to 1.10.11

# Why the committee made the recommendations

The committee looked at evidence for different boundary values for BMI and BMI z-scores but these focused on identifying current health conditions rather than defining the degree of overweight and obesity. Based on their expertise, they provided clinical definitions of overweight and obesity using BMI centiles and BMI SDs. These values correspond with those in the Royal College of Paediatrics and Child Health UK-World Health Organization growth charts. The committee agreed that it was important to use clinical judgement when interpreting BMI below the 91st centile, especially because children and young people in the healthy weight category may still have central adiposity.

The committee also noted that there are resources that can help professionals understand how to measure, plot and assess BMI in children and young people. These include educational resources from the Royal College of Paediatrics and the National Child Measurement Programme Operational Guidance, which both give information on how the clinical definitions of BMI link to BMI centiles and SDs.

There was a lack of evidence identified on BMI boundary values for children and young people from different ethnicities. The committee agreed this was an important area for research to investigate whether there are variations in thresholds, as there are in adults, and made a recommendation for research on measurements for assessing health risks in children and young people. The committee noted that although they could not provide different thresholds for BMI, waist-to-height ratio could be used as an indicator of central adiposity regardless of ethnicity and sex.

Studies also suggested that the optimal waist-to-height ratio cut-offs for children and young people ranged from 0.42 to 0.57, with most studies

averaging around 0.5. Based on the evidence and their clinical knowledge, the committee agreed the waist-to-height ratio boundary value of 0.5 should be the same for children and young people as for adults.

# How the recommendations might affect practice

Waist-to-height ratio is not routinely measured in practice so there may be extra costs for the extra staff time involved. But the cost impact should be small because waist measurements are already widely used in primary care so it would not need much extra time to calculate the ratio.

Health visitors and school nurses, as well as general practice, are involved in taking measurements. The <a href="NHS England healthier weight competency">NHS England healthier weight competency</a> framework does highlight that healthcare professionals involved in identification of overweight and obesity should be able to accurately measure and classify weight status in children and young people. With the addition of waist-to-height ratio, it is important that training is available so that measurements can be taken by trained personnel.

The <u>NHS obesity page</u>, and organisations such as Diabetes UK and the British Heart Foundation, have information and videos explaining how to measure and calculate waist-to-height ratio. These are for adults but can also be useful for older children and young people, families and carers.

#### Return to recommendations

# Discussing the results with adults

Recommendations 1.11.2 to 1.11.4

#### Why the committee made the recommendations

Based on their experience, the committee agreed that before deciding on referral for adults it was important to discuss and agree realistic and appropriate health goals, and to emphasise the importance of personal choice and person-centred care. They also highlighted that in their experience interventions were more likely to be effective if they address the drivers of overweight and obesity, for example social context, mental health and

wellbeing and stigma. They discussed what form appropriate goals should take, and agreed that it was more useful to focus on wider health goals and benefits rather than only on weight. They highlighted the importance of making the person's individual needs and preferences the main concerns when setting goals.

# How the recommendations might affect practice

The extra time needed to discuss overweight and obesity management options and address any barriers that affect uptake is likely to increase the length of appointments. Resources may be needed for increased assessments for any comorbidities, or referral to other services such as social care, physiotherapy, eating disorder services or other physical or mental health and wellbeing support. But the cost of this is expected to be insignificant and be offset by savings from better health outcomes.

#### Return to recommendations

# **Choosing interventions with adults**

Recommendations 1.11.5 to 1.11.11

# Why the committee made the recommendations

The evidence showed that, in many areas, there were very few overweight and obesity management services and, if they were available, healthcare professionals were often not aware of them. The committee noted that the availability of services is an issue in many areas across the UK and highlighted that, for services to be used effectively, it was important for healthcare professionals involved in identifying overweight and obesity to be aware of them.

Based on their understanding of practice, the committee stressed the importance of an all-round discussion of the person's individual needs and preferences to reach a shared decision about what level and types of intervention would suit them. This includes taking into account factors such as ethnicity, weight-related comorbidities, socioeconomic status, family medical history and special educational needs and disabilities (SEND). These

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discussions can also involve giving information about local overweight and obesity services and other support services.

There was a wealth of evidence on what types of intervention adults wanted and how these could be tailored to meet their needs. In light of this, the committee agreed it is most effective to use interventions that are culturally appropriate, tailored to particular demographic groups, and that take people's previous experience of interventions into account. They also agreed that people were more likely to engage with interventions if they understood why these adaptations could help them. The evidence showed that men were a particular demographic group who benefit from targeted interventions, so the committee highlighted men-only interventions as a specific adaptation that would be useful.

The evidence revealed that adults are often worried about the costs of taking part in an intervention. The committee were concerned that costs can be a barrier to participation that widens health inequalities. So they agreed it was important to inform adults about any known costs associated with the intervention, or with continuing it after a funded referral period has ended.

It is widely thought that group interventions tend to be more cost effective than individual ones, but no direct evidence was found to support this. Although there was no evidence on the cost effectiveness of digital services, the committee agreed that in their experience these are a useful additional option and are preferred by some people. The committee noted that there are rarely enough interventions available locally to enable a choice. But they agreed that, if a choice was possible, it was appropriate to base the decision on whether to use an in-person individual or group intervention, or a digital intervention on the person's preferences and needs.

Committee consensus was that a holistic approach was key to making sustainable changes, and that people need information about extra sources of long-term community or healthcare support. This reflects the approach recommended in <a href="NICE's guideline on behaviour change: digital and mobile">NICE's guideline on behaviour change: digital and mobile health interventions.</a>

# How the recommendations might affect practice

The recommendations are not expected to need a significant increase in capacity and resource. Healthcare professionals should already be aware of the overweight and obesity management services that are available locally and nationally. The more flexible approach is expected to lead to a more appropriate choice of intervention in people living with overweight or obesity.

The extra time needed to discuss overweight and obesity management options and address any barriers that affect uptake is likely to increase the length of appointments. But the cost of this is expected to be insignificant and be offset by savings from better health outcomes.

#### Return to recommendations

# Referring adults to specialist services

#### Recommendation 1.11.12

# Why the committee made the recommendation

Based on their expertise, the committee agreed people with weight-related comorbidities may benefit from a higher level of intervention. They also highlighted groups of people, such as those newly diagnosed with type 2 diabetes and those with BMI over 50, who would benefit more from immediate overweight and obesity interventions. Based on their expertise, the committee noted that these groups are often not offered appropriate interventions early enough.

# How the recommendation might affect practice

The recommendation is not expected to need a significant increase in capacity and resource. Healthcare professionals should already be aware of the overweight and obesity management services that are available locally and nationally. The more flexible approach is expected to lead to a more appropriate choice of intervention in people living with overweight or obesity.

#### Back to recommendation

#### If an adult declines referral

Recommendations 1.11.14 and 1.11.15

# Why the committee made the recommendations

The committee emphasised the need to acknowledge and respect the person's choice to decline a referral. The evidence showed that adults often find it stigmatising when they feel pressured to engage with overweight and obesity management. The committee were concerned this would create barriers to engagement with interventions. They agreed it was also important to offer further opportunities for referral or re-referral, because evidence indicates that overweight and obesity can be long-term, relapsing issues.

# How the recommendations might affect practice

The extra time needed to discuss overweight and obesity management options and address any barriers that affect uptake is likely to increase the length of appointments. But the cost of this is expected to be insignificant and be offset by savings from better health outcomes.

#### Return to recommendations

# Asking permission from children and young people, and their families and carers

Recommendation 1.12.1

#### Why the committee made the recommendation

The committee agreed that it is important to ask for permission from children, young people, and their parents or carers (if appropriate), before starting any discussions linked to overweight, obesity or central adiposity. They agreed that professional judgement is needed to ensure discussions are age appropriate and decide whether the child or young person should be involved. They also noted that it was standard practice for healthcare professionals to use Gillick competency to determine the capacity of a child or young person under 16 to consent.

# How the recommendation might affect practice

There are a few training programmes specifically for managing overweight and obesity in children and young people, such as the training by the World Obesity Federation, European Childhood Obesity Group, the Department of Health and Social Care's obesity team and Health Education England. Some of these need to be updated to include measuring waist circumference and interpreting waist-to-height ratio, which might lead to extra training costs. Healthcare professionals may need extra time to teach older children and young people, and their families and carers, how to measure the waist accurately and calculate waist-to-height ratio. However, the committee agreed that extra costs of training and staff time are unlikely to result in a significant resource impact and are justified by the long-term health benefits associated with a reduction in obesity-related conditions.

#### Return to recommendation

# Discussing the results with children and young people, and their families and carers

Recommendations 1.12.2 to 1.12.5

#### Why the committee made the recommendations

The evidence showed that children and young people and their families or carers were not always keen to accept a referral to overweight and obesity management interventions. The committee therefore highlighted the need to explain the health risks associated with a higher BMI using non-judgemental language, to consider the drivers of overweight and obesity and to advocate for the child's health in proportion to the impact their BMI may have. In their view, the higher the child's BMI the greater the risks. So they agreed it was important to convey this to families and carers to encourage engagement.

There was some evidence that beliefs and attitudes about weight stemming from different cultural contexts and backgrounds influenced how families and carers felt about their child being identified as living with overweight or obesity, or with being referred. But this evidence was not specific or

comprehensive, so the committee made a <u>recommendation for research on</u> <u>beliefs about weight</u> to investigate these factors further so they can be given the appropriate respect and depth of consideration in future.

Based on their experience, the committee agreed on the need to discuss and set realistic and appropriate health goals and to emphasise the importance of personal choice and person-centred care before deciding on referral. This would help people make the most suitable choice. The committee discussed what form these goals should take, and they highlighted the importance of making the person's individual needs and preferences the main concerns. They agreed that for children and young people it was particularly important not to make lowering BMI or weight the only goal, because the evidence indicated that interventions are unlikely to reduce BMI in the long term.

The committee agreed that any intervention in children and young people should also include support for weight maintenance, as evidence on diet interventions suggested that interventions that included support were more likely to be beneficial and cost-effective. They also emphasised discussing wider benefits, including improvements in psychosocial outcomes such as sense of wellbeing, self-efficacy, self-esteem, and self-perception, because the evidence showed that children and young people consider these to be important.

The committee wanted to encourage referral and uptake of alternative services, including the local mental health pathway and other specialist services that may help address the determinants of overweight and obesity. The committee highlighted mental health support in particular, because this was a concern raised in the qualitative evidence. Mental health was found to have a negative impact on access to services.

# How the recommendations might affect practice

The extra time needed to discuss overweight and obesity management options and address any barriers that affect uptake is likely to increase the length of appointments. But the cost of this is expected to be insignificant and to be offset by savings from better health outcomes.

A focus on addressing the drivers of overweight and obesity is likely to increase the effectiveness and cost effectiveness of the interventions.

#### Back to recommendations

# Choosing interventions with children and young people, and their families and carers

Recommendations 1.12.6 to 1.12.12

# Why the committee made the recommendations

The committee agreed that healthcare and other professionals need to be familiar with the local overweight and obesity management pathway for children and young people, especially links to support services, so they can give accurate and pertinent advice to best meet children and young people's needs.

The committee agreed, based on evidence and their experience, that discussions of previous overweight and obesity management experiences were more effective if they take into account cultural and social assumptions about health and diet, and the impact of deviating from these to achieve better health. They noted the need to address these points before choosing an overweight and obesity management intervention. They agreed it was also important to discuss how both the child or young person and their family or carers feel about overweight and obesity management, including specific interventions, so that all views could be taken into account to enable personcentred care. Finally, they wished to emphasise that it is the choice of the child, young person, families or carers whether to accept a referral.

There was a wealth of evidence on what types of intervention children and young people, and their families and carers, wanted and how these could be tailored to meet their needs. So, the committee agreed that adherence could be improved if referrers identify interventions that are culturally appropriate, have been adapted for different cultural communities and dietary practices, or are tailored to particular demographic groups. Children and young people expressed a particular desire for peer support in the interventions, so being

among their own age group was one important concern when choosing an intervention.

As with adults, the committee were concerned that costs can be a barrier to participation that widens health inequalities. So they agreed it was important to inform people about these as well as the importance of regular attendance before they make decisions.

Network meta-analyses of the evidence showed that changes to children's BMI z-score as a result of an intervention were not sustained. (BMI z-score is also known as BMI standard deviations [SDs], which indicate how many units a child's BMI is above or below the average BMI value for their age group and sex.) There was little or no difference between BMI z-score at the start of an intervention and BMI z-score 6 months or more after it ended. This aligned with the committee's view that, in their experience, overweight and obesity can often be long-term issues, and weight regain is common. They agreed that referring to interventions that offer ongoing maintenance advice and support gave the best possible chance of making sustained changes. But they noted that more evidence was needed to support this view, so made a recommendation for research on behavioural interventions and long-term support in children and young people.

Based on their clinical expertise, the committee agreed that tailored interventions were useful for children who are living with overweight or obesity or have increased health risk based on waist-to-height ratio. They agreed that weight-related comorbidities, ethnicity, socioeconomic status, social complexity (for example, looked-after children and young people), family medical history, mental and emotional health and wellbeing, developmental age, and special educational needs and disabilities (SEND) need to be taken into account when tailoring interventions.

# How the recommendations might affect practice

Time will be needed to for practitioners to familiarise themselves with the local overweight and obesity management pathway. And discussing this is likely to

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increase the length of appointments. But the cost is expected to be offset by savings from better health outcomes.

Providing weight maintenance support after a weight management intervention may initially need additional resources, but it is expected to reduce relapses and downstream costs related to obesity management, which will increase the overall efficiency of the NHS.

The extra time needed to discuss overweight and obesity management options and address any barriers that affect uptake is likely to increase the length of appointments. But the cost of this is expected to be insignificant and to be offset by savings from better health outcomes.

There might be some costs associated with the whole-systems approach to embedding overweight and obesity management interventions into wider programmes that involve multi-partnership and integration of care. But a focus on addressing the drivers of overweight and obesity is likely to increase the effectiveness and cost effectiveness of the interventions.

There are a few training programmes specifically for managing overweight and obesity in children and young people, such as the training by the World Obesity Federation, European Childhood Obesity Group, the Department of Health and Social Care's obesity team and Health Education England. Some of these need to be updated to include measuring waist circumference and interpreting waist-to-height ratio, which might lead to extra training costs. Healthcare professionals may need extra time to teach older children and young people, and their families and carers, how to measure the waist accurately and calculate waist-to-height ratio. However, the committee agreed that extra costs of training and staff time are unlikely to result in a significant resource impact and are justified by the long-term health benefits associated with a reduction in obesity-related conditions.

Return to recommendations

# Specialist services

Recommendation 1.12.13

# Why the committee made the recommendation

The committee were particularly aware that children and young people with weight-related comorbidities, such as type 2 diabetes, may benefit from a higher level of intervention regardless of their waist-to-height ratio. The committee stressed the importance of working with the child or young person, and their families and carers (if appropriate), to make an informed decision about the treatment or care option that is best for them. As highlighted in resources such as the step-by-step guide produced by Public Health England on conversations about weight, healthcare professionals can also give information about local overweight and obesity services such as complications from excess weight clinics (CEW) (if available) and other paediatric support services during these discussions.

# How the recommendation might affect practice

There are a few training programmes specifically for managing overweight and obesity in children and young people, such as the training by the World Obesity Federation, European Childhood Obesity Group, the Department of Health and Social Care's obesity team and Health Education England. Some of these need to be updated to include measuring waist circumference and interpreting waist-to-height ratio, which might lead to extra training costs. Healthcare professionals may need extra time to teach older children and young people, and their families and carers, how to measure the waist accurately and calculate waist-to-height ratio. However, the committee agreed that extra costs of training and staff time are unlikely to result in a significant resource impact and are justified by the long-term health benefits associated with a reduction in obesity-related conditions.

Return to recommendation

If a child or young person declines referral

Recommendation 1.12.16

# Why the committee made the recommendation

The committee noted that the wider determinants and context of overweight and obesity can influence people's ability to accept a referral, and they discussed the need to acknowledge and respect the choice to decline a referral. They agreed that it was particularly important to offer further opportunities for referral or re-referral to children and young people, because their weight status is still in flux while they grow, so it is important to keep monitoring whether their growth is following a healthy trajectory.

# How the recommendation might affect practice

The extra time needed to discuss overweight and obesity management options and address any barriers that affect uptake is likely to increase the length of appointments. But the cost of this is expected to be insignificant and to be offset by savings from better health outcomes.

There might be some costs associated with the whole-systems approach to embedding overweight and obesity management interventions into wider programmes that involve multi-partnership and integration of care. But a focus on addressing the drivers of overweight and obesity is likely to increase the effectiveness and cost effectiveness of the interventions.

#### Return to recommendation

# Encouraging adherence to behavioural overweight and obesity management interventions for adults

Recommendations 1.13.1 to 1.13.4

#### Why the committee made the recommendations

The committee did not review evidence on encouraging adherence for adults, but they agreed that the overall principles derived from the evidence for children and young people applied equally to adults.

They discussed how best to address concerns or barriers that may affect the person's attendance and participation in behavioural interventions. They also agreed it was useful to repeat these discussion points from the initial referral

to ensure consistency in approach throughout the process. Likewise, when reviewing progress towards meeting goals they agreed it was important to continue to focus on health goals, rather than focusing solely on weight goals, and address any difficulties that affect the person's attendance and participation. If difficulties cannot be resolved, they agreed that alternative options, such as referral to another service, could help people maintain adherence.

The committee recognised that the support from family and others such as friends and peers can improve adherence and help the person achieve their goals. They also highlighted the importance of sharing information with the referring GP or healthcare professional so they can also provide continued support if necessary.

# How the recommendations might affect practice

The extra time needed to discuss overweight and obesity management options and address any barriers that affect uptake is likely to increase the length of appointments. But the cost of this is expected to be offset by savings from better health outcomes.

#### Return to recommendations

# Submitting audit data for adults

Recommendation 1.13.5

#### Why the committee made the recommendation

The committee noted the importance of entering participant data into the National Obesity Audit, to drive improvement in the care available to those living with overweight and obesity in England.

#### How the recommendation might affect practice

Submitting data to the National Obesity Audit should be standard practice, so will not need extra resources in areas that already meet this obligation.

# Return to recommendation

# Core components of behavioural overweight and obesity management interventions for children and young people

Recommendations 1.14.1 to 1.14.5

# Why the committee made the recommendations

The committee recognised that it is not always possible to refer to interventions that continue to offer maintenance advice and support after an intervention ended. So they agreed that offering maintenance advice during the intervention that participants can follow once it is completed was an achievable way to ensure people had the information they need after the intervention finished.

They agreed interventions should be multicomponent and tailored to individual needs because the evidence suggested a variety of barriers that affect people's willingness to participate and adhere to the intervention, but that these barriers would be different for each person.

Based on the network meta-analyses, the committee agreed that the evidence supported the effectiveness of interventions that included both diet and behaviour-change components. They also agreed it supported the effectiveness of several specific behaviour-change components, and of encouraging other family members to engage with the intervention.

Although there was no specific evidence to support a physical activity component of interventions, the committee agreed that based on their experience this was also likely to be a useful addition.

# How the recommendations might affect practice

Providing weight maintenance support after a weight management intervention for children and young people may initially need additional resources, but it is expected to reduce relapses and downstream costs related to obesity management, which will increase the overall efficiency of the NHS.

There might be some costs associated with the tailored multicomponent approach to embedding overweight and obesity management interventions for

children and young people. A focus on addressing the drivers of overweight and obesity is likely to increase the effectiveness and cost effectiveness of the interventions.

#### Return to recommendations

# Developing a tailored plan to meet individual needs

Recommendations 1.14.7 to 1.14.20

# Why the committee made the recommendations

The committee considered the evidence on developing a tailored plan to meet individual needs. The studies supported the principles of tailoring plans to give individual, patient-centred care, and reinforced the need to take account of mental health and wellbeing needs.

# How the recommendations might affect practice

The extra time needed to tailor plans and address barriers that affect uptake is likely to increase the length of appointments. But the cost of this is expected to be insignificant and to be offset by savings from better health outcomes.

#### Return to recommendations

# Encouraging adherence to behavioural overweight and obesity management interventions for children and young people

Recommendations 1.14.24 to 1.14.31

#### Why the committee made the recommendations

The committee considered the evidence on encouraging adherence to behavioural overweight and obesity management interventions. The evidence outlined how accessibility, choice and convenience of the interventions (such as individual or group) could act as barriers or facilitators to attendance. The committee agreed this showed the importance of suitable venues, times, flexibility and consistency. They also used their expertise and experience to

agree that maintaining contact with families and carers, and following up on any problems with attendance would support adherence.

The committee discussed how best to address concerns or barriers that may affect the child or young person's attendance and participation in the intervention. They agreed it was useful to repeat the discussion points from the initial referral to ensure consistency. Likewise, when reviewing progress towards meeting goals they agreed it was important to continue to focus on achievable health goals, rather than focusing solely on weight goals (which are less likely to be met), and to address any difficulties that affect the person's attendance and participation. If difficulties cannot be resolved, they agreed that alternative options such as referral to another service could help the child or young person maintain adherence.

# How the recommendations might affect practice

The extra time needed to discuss adherence and follow up on problems is likely to increase the length of appointments. But the cost of this is expected to be insignificant and to be offset by savings from better health outcomes.

Return to recommendations

# Ongoing support from providers of overweight and obesity management interventions

Recommendations 1.14.32 and 1.14.33

#### Why the committee made the recommendations

In the committee's experience, people need long-term support because overweight and obesity are chronic health conditions. But the majority of trials reviewed in the evidence used fixed term interventions with very little follow up and support afterwards. The committee made a recommendation for research on behavioural interventions and long-term support in children and young people to fill this gap in the evidence.

Based on their experience, the committee agreed that ongoing support is a necessary part of effective interventions and that this should be tailored

according to the child or young person's progress, their needs and the needs of the family and carers, and information from monitoring the intervention. Their consensus was that this is best offered by intervention providers directly if possible, but that it is also useful to discuss other services that can give extra support with the child or young person, their family and carers. They noted the need for these external services to have staff with the appropriate skills and comply with local policies and requirements, such as safeguarding.

# How the recommendations might affect practice

Extra time and resources may be needed for follow up and long-term support. But the cost of this is expected to be insignificant and to be offset by savings from better health outcomes.

#### Return to recommendations

# Ongoing support from healthcare and other professionals

Recommendations 1.14.34 to 1.14.37

# Why the committee made the recommendations

Based on their experience and expertise, the committee highlighted the need for ongoing support from healthcare and other professionals throughout the child or young person's path to adulthood. They agreed that it is important to continue to measure and monitor the child or young person's weight, because overweight and obesity can be recurring issues and further support is needed if the child or young person's BMI begins to increase. They also agreed it was not practical to specify a timeframe for how long a child or young person should continue to be measured because that will depend on their age and needs. They noted the need for healthcare and other professionals to have the appropriate skills and comply with local policies and requirements.

#### How the recommendations might affect practice

Extra time will be needed for ongoing support and monitoring. But the cost of this is expected to be insignificant and to be offset by savings from better health outcomes.

#### Return to recommendations

# Submitting audit data for children and young people

#### Recommendation 1.14.38

# Why the committee made the recommendation

The committee noted the importance of entering the required participant data into the National Obesity Audit, to drive improvement in the care available to those living with overweight and obesity in England.

### How the recommendation might affect practice

Submitting data to the National Obesity Audit should be standard practice, so will not need extra resources in areas that already meet this obligation.

#### Return to recommendation

# Psychological therapies to address the effect of weight stigma (no recommendations)

The use of psychological approaches, such as compassion focus therapy, cognitive behavioural therapy and acceptance and commitment therapy, varies among multicomponent overweight and obesity management services. NICE found little evidence about the effectiveness, cost effectiveness and acceptability of these approaches to address weight stigma in adults, and none for children and young people. The committee noted that the majority of the evidence was from pilot studies that had various problems, including very small sample sizes, and none of the studies were done in the UK.

The committee stressed the need for more studies using larger sample size and longer follow up (at least 1 year), so they made a <u>recommendation for research on psychological therapies to address the effect of stigma</u> so that robust recommendations could be made in the future on using these approaches.

#### Return to recommendations

# Dietary approaches for all ages

Recommendations 1.16.1 to 1.16.7

#### Why the committee made the recommendations

Although the evidence focused on adults, the committee developed recommendations to cover all ages because the principles are important for everyone.

There was no evidence on how diets should be tailored to meet individual needs. So the committee used their expertise to highlight factors, such as food preferences, personal circumstances or comorbidities, that are key to a flexible, individual approach and can influence adherence and effectiveness. They also agreed that, in their experience, discussing the wider benefits of an improved diet also helped people follow the dietary advice.

The committee acknowledged that any dietary approach needs to reduce energy intake, and therefore most diets restrict food intake. But they were concerned that excessive restriction can result in poor nutritional balance. It can also contribute to rapid weight regain or weight cycling (repeatedly losing and regaining weight) in the long term. The committee noted that the calorie deficit in the studies varied. Many used a 500 to 800 kilocalories a day deficit but it was also common to use an individual deficit for each participant, so they agreed not to specify a particular deficit.

The committee recognised that macronutrient diets are increasingly popular, but they vary in the approach to macronutrient balance and the evidence did not favour a particular approach. They noted that many of the studies compared low-carbohydrate diets with 'conventional' diets that were typically low-fat. Generally, the evidence could not differentiate between the approaches. So the committee agreed they could not recommend specific types of macronutrient diets and that different approaches to lowering macronutrient content, by reducing either fat or carbohydrate intake, could be used to create the energy deficit needed.

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The committee emphasised the importance of support from appropriately trained healthcare professionals such as Registered dietitians or Registered nutritionists as part of any dietary approach, because this can help people to achieve a nutritional balance and to maintain weight in the long term.

No evidence was identified on the effectiveness of plant-based diets so the committee could not make any recommendations on these. They also agreed that plant-based diets are often adopted for environmental or ethical reasons rather than for weight loss.

#### How the recommendations might affect practice

The recommendations reflect general principles of care and are largely in line with current practice, so are not expected to need extra resources.

Return to recommendations

# Intermittent fasting in adults (no recommendations)

### Why the committee did not make a recommendation

Some evidence was identified on intermittent energy-restriction approaches such as alternate-day fasting and time-restricted eating. This showed improvement for a few outcomes, but for most outcomes it was not effective. The committee also noted the variation in approaches to intermittent energy restriction and that there were problems with the studies, such as not being able to differentiate between the intervention and control for some outcomes. So they did not make recommendations on these diets but made a recommendation for research on intermittent fasting in adults to encourage better quality trials.

Return to recommendations

#### Low-energy and very-low-energy diets for adults

Recommendations 1.16.8 to 1.16.12

#### Why the committee made the recommendations

The committee looked at evidence on a range of diet types, including low-energy, very-low-energy, low-carbohydrate, very-low-carbohydrate and intermittent energy-restriction approaches. It showed low-energy (800 to 1,200 kilocalories a day) and very-low-energy (fewer than 800 kilocalories a day) diets to be effective, with results lasting for 3 to 5 years after undertaking the diet if ongoing support is given.

In most of the studies, participants followed low-energy and very-low-energy diets for between 8 and 16 weeks, and most commonly for 12 weeks. So the committee agreed that neither approach should be used as a long-term strategy and should be followed for no more than 12 weeks. They emphasised that this should be explained to people before they start the diet.

The low-energy diets used in the evidence were either total meal replacement or partial meal replacement diets. They were more effective than usual care for both mixed populations (people living with overweight and people living with obesity) and for people with type 2 diabetes. The health economic analysis found low-energy diets plus weight maintenance support to be cost effective in people who are living with obesity, or who are living with overweight and have type 2 diabetes. So the committee agreed that low-energy diets were appropriate for both these groups.

Some evidence for low-energy diets was limited to people with type 2 diabetes diagnosed up to 6 years previously. But the committee were not aware of evidence on the relationship between the duration of type 2 diabetes and the likelihood of diabetes remission with weight loss, so they agreed not to limit use of these diets to people with a recent diagnosis. Because of the lack of evidence, they made a recommendation for research on low-energy diets in people with type 2 diabetes.

For very-low-energy diets, all studies were of total meal replacement diets in mixed populations (people living with overweight and people living with obesity). These diets were more effective than usual care in reducing weight

and waist circumference. There was no evidence on partial meal replacement diets, or on using this diet in people with type 2 diabetes.

The committee agreed that very-low-energy diets were effective but stressed that, because of their restrictive nature, they should be used only for specific goals in populations who have a clinically assessed need to rapidly lose weight. They discussed whether to specify that this should include people who need joint replacement surgery or who are seeking support from fertility services, but there was a lack of evidence for these groups and the committee were concerned that specifying particular groups could be stigmatising or delay people from receiving treatment. Nevertheless, they recognised that weight loss can make some surgical procedures safer or more technically feasible. So they agreed to highlight the importance of surgical feasibility and safety (rather than access to services) as a reason someone might need to rapidly lose weight. Because of the lack of evidence on specific groups they also made a recommendation for research on low-energy and very-low-energy diets before treatment for other conditions.

The committee also noted that participants in the studies had support from trained healthcare professionals such as Registered dietitians and Registered nutritionists, physicians, counsellors or practice nurses. This covered the intervention period, food reintroduction (particularly if total meal replacement diets had been used), and long-term support with weight maintenance or if weight regain occurred. The committee's experience aligned with the evidence that ongoing clinical support and supervision is a critical part of a multicomponent overweight and obesity management strategy. Although the committee acknowledged that a Registered dietitian or nutritionist are not necessary to deliver the diet, they agreed on the importance of facilitating access to people with this training if needed (for instance if people are concerned about rapid weight loss).

The committee discussed the high likelihood of weight regain, particularly when reintroducing food after total meal replacement diets. They agreed that, in their experience, being clear about the potential for weight regain or weight cycling (repeatedly losing and regaining weight) helped manage people's

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expectations and normalise these outcomes. They emphasised the importance of reassuring people that weight regain is not a sign of failure, so they do not become discouraged, and of discussing other options for long-term weight maintenance.

The committee noted that there was no evidence of adverse events linked with low-energy and very-low-energy diets. But in their experience constipation, fatigue and hair loss are common and it is important to make people aware of the restrictive nature of these diets and the potential for adverse events so that they are prepared.

Although no evidence was identified on the development of eating disorders or disordered eating with restrictive diets, the committee raised concerns about their potential psychological impact. Based on their experience and stakeholder feedback, it is a common concern that people who show a preference for highly restrictive diets and fasting are more likely to be vulnerable to an eating disorder. So the committee agreed that it was important for healthcare professionals to think about assessment and counselling for eating disorders and other mental health issues before starting someone on a low-energy or very-low-energy diet. But they also stressed the importance of discussing potential benefits of these diets, including those beyond weight loss such as improvement in diabetes and other health benefits, so that people are not put off trying them.

Because of the limited evidence they made a <u>recommendation for research</u> on adverse events associated with different dietary approaches, including development of eating disorders or disordered eating and the psychological impact of 'yo-yo dieting' and weight fluctuations.

The committee acknowledged that people who are eligible for low- and very-low-energy diets may need to take medicines for other conditions. Dosages may need to be altered for people on these diets, especially if rapid weight loss occurs, so it is important for healthcare professionals to review any existing medicines and discuss any changes that may be needed.

#### How the recommendations might affect practice

People on low-energy diets and very-low-energy diets may need access to support from an appropriately trained Registered dietitian or Registered nutritionist, particularly when reintroducing food after meal replacement diets, or when weight regain happens. Changes in practice may be needed to ensure that people are supported to achieve and maintain a healthy weight and reduce the risk of harmful weight regain. But the benefits of long-term weight reduction are expected to outweigh any extra costs.

Offering low-energy diets to people who are living with obesity or people who are living with overweight who have type 2 diabetes will increase the number of people eligible for support from overweight and obesity management services. But reduced levels of overweight and obesity could reduce the costs of treating related conditions for the NHS and wider systems, such as social care.

The NHS Type 2 diabetes Path to Remission Programme provides a low-calorie, total meal replacement treatment in selected areas for people with type 2 diabetes who are living with obesity or overweight. Results from this will help to build knowledge and understanding about the use of these interventions and the impact they might have on the treatment of people with type 2 diabetes.

There may be cost implications for people who are eligible for total meal replacement diets if they have to pay for the products themselves. But because the diets are cost effective when financed and provided by the NHS, these recommendations are expected to encourage NHS commissioners to provide them free to eligible groups.

Return to recommendations

# Surgical interventions

Recommendations 1.18.1 to 1.18.2 and 1.18.6 to 1.18.7

#### Why the committee made the recommendations

#### When to refer adults for assessment for bariatric surgery

The committee discussed evidence on bariatric surgery for various subgroups of people with and without obesity-related comorbidities. They agreed that it improved several important outcomes (including weight loss, cardiovascular disease and mortality) for people with a BMI of 40 kg/m² or more and for those with a BMI of 35 kg/m² or more if they had obesity-related comorbidities. They also agreed that giving examples of common health conditions that could be improved by bariatric surgery would help practitioners decide whether referral was appropriate for those with a BMI below 40 kg/m². This list was based on the evidence identified for this guideline and is therefore not exhaustive. They agreed that the economic evidence showed that bariatric surgery was cost effective in these groups.

Committee members highlighted that referral to a specialist obesity service for comprehensive assessment for surgery from an overweight and obesity management multidisciplinary team was important to ensure that the risks associated with the surgery are identified and managed.

The committee discussed whether non-surgical measures should be tried, including interventions in specialist overweight and obesity management services (sometimes referred to as tier 3 services) before assessing people for surgery. They agreed that making people try specific measures before referral for surgery would create an unjustified barrier to effective treatment, and the evidence did not support using surgery only as a last resort. They also noted that specialist overweight and obesity management services are not available in all parts of the country (in 2014 to 2015 only about 21% of the clinical commissioning groups in England included these services), and that information on them was limited. So restricting assessment for surgery to those who have already used a specialist overweight and obesity management service could exacerbate health inequalities.

No evidence was found on the effectiveness of bariatric surgery for weight loss in people who had been refused other treatment because of obesity,

such as a kidney transplant, fertility treatment or joint replacement surgery. The committee could not identify a referral criterion for this population so they made a <u>recommendation for research on bariatric surgery in people who are unable to receive treatment for other conditions.</u>

Although no evidence was found on the effectiveness of bariatric surgery in different ethnicities, the committee agreed that, based on their experience, obesity-related comorbidities affected people from South Asian, Chinese, other Asian, Middle Eastern, Black African or African-Caribbean family background at lower BMI levels. Lowering the BMI thresholds for offering surgery to people in these groups could improve outcomes. The committee also agreed that reducing the BMI threshold by 2.5 kg/m<sup>2</sup> was supported by evidence identified for the recommendations on identifying and assessing overweight, obesity and central adiposity. They noted that this would be in line with guidance developed by other organisations (for example, British Obesity and Metabolic Surgery Society guidance on accessing tier 4 services and joint American Society for Metabolic and Bariatric Surgery and International Federation for the Surgery of Obesity of Metabolic Disorders guidance). However, they also made a recommendation for research on bariatric surgery in people from ethnic minority backgrounds to confirm the appropriate referral criteria.

#### Initial assessment and discussions with the multidisciplinary team

Committee members highlighted that although bariatric surgery can be effective for weight loss and improve comorbidities, there are short- and long-term medical, nutritional (for example, deficiencies), surgical and psychological risks and complications that may be associated with the procedure. They noted that another major concern was the lack of service provision and variation in practice, including in the initial assessment before surgery.

Based on these risks and concerns, the committee agreed it was crucial to stress the importance of an initial comprehensive assessment by a multidisciplinary team to determine the level of risk before surgery. And that, to manage the variation in practice, it was important to give health and social

care professionals and anyone being referred for assessment information about what to expect during this assessment and the level of support the person will need.

The committee agreed on the importance of comprehensive assessment - including assessing the person's fitness for anaesthesia and surgery - by a multidisciplinary team that has access to or includes with people with specialist expertise. Although these specialist assessments were recommended in NICE's 2014 guideline on obesity (replaced by this guideline) the committee agreed they were not yet universal practice, so they agreed it was useful to restate their importance.

The committee agreed that ideally the multidisciplinary team should have access to or include a physician, surgeon or bariatric surgeon, Registered dietitian and specialist psychologist. But they acknowledged that because of variation in commissioning of services there may be differences in the structure of the multidisciplinary team and that this assessment for surgery might currently lie in specialist overweight and obesity management services (sometimes referred to as tier 3 or tier 4 services). The committee also noted that various factors need to be taken into account when carrying out the assessment to ensure that the person's needs are met. For example, if the person has comorbidities then specialist input from other multidisciplinary teams already involved in their care may be needed, or input from a learning disability team or liaison nurse if they have learning disabilities or neurodevelopmental conditions. So they did not recommend specific membership of the team, to account for flexibility for local arrangements and individual needs.

The committee agreed that assessing the person's previous overweight and obesity management attempts and engagement with overweight and obesity interventions can help identify which interventions have been successful or unsuccessful in the past and aid discussions about future treatment decisions. This can also allow people to be assessed for surgery even if they have not been able to access appropriate overweight and obesity interventions because of a lack of local availability.

The committee noted the importance of taking into account other factors linked with health inequalities that may affect someone's response after surgery, for example, managing their weight after surgery.

Access to expertise in all these areas would allow the team to identify people for whom bariatric surgery is suitable, and identify any arrangements needed before surgery such managing existing or new comorbidities, improving nutrition or providing psychological support).

#### How the recommendations might affect practice

Offering assessment for bariatric surgery to people even if they have not tried all non-surgical measures or have not already attended a specialist overweight and obesity management service for intensive overweight and obesity management support will reduce variation in practice and increase uptake in previously overlooked groups. Considering assessment for bariatric surgery at lower BMI thresholds for people from some ethnicities will reduce inequalities in obesity-related outcomes and improve accessibility of treatment.

These are both likely to increase the number of referrals and surgeries carried out, and therefore increase costs. But basing the offer of surgery on comorbidities as well as BMI will help those who could benefit most, and the cost will be offset by the long-term reduction in obesity-related complications.

#### Return to recommendations

# Planning and funding services and interventions

Recommendation 1.19.2

# Why the committee made the recommendation

The committee discussed whether there should be an upper BMI or upper age limit for referral to overweight and obesity management services. Based on their expertise and experience, they agreed there should be no limits, but added that older adults or people with a very high BMI often had complex or specialist needs. Based on their experiences and judgement of the suitability

of services, they agreed to emphasise the need for services to be accessible and able to meet complex needs.

#### How the recommendation might affect practice

The recommendation reflects general principles of care and is largely in line with current practice, so is not expected to have an impact on resources.

#### Return to recommendation

# Raising awareness of overweight and obesity management options

Recommendations 1.19.19 to 1.19.21, and 1.19.23 to 1.19.25

#### Why the committee made the recommendations

The committee discussed the need for commissioners and programme providers to be aware of local needs so that sufficient interventions are commissioned. They used their experience and expertise to suggest topics for public health information and details of interventions the public could be made aware of, and suggest routes for sharing this information. Raising professional and public awareness of what is available and maintaining an up-to-date list of local interventions will enable efficient referral and self-referral.

Based on their experience the committee discussed that healthcare professionals want to be able to share online and social media resources with adults. They agreed that many people prefer to access information about overweight, obesity and possible interventions online, so it is important for healthcare professionals to have reliable sources at hand.

# How the recommendations might affect practice

The recommendations reflect general principles of care and are largely in line with current practice. Raising professional and public awareness could have a cost, but the benefits of better awareness are expected to offset any investment.

#### Return to recommendations

# Involving a multidisciplinary team for children and young people

Recommendation 1.20.3

#### Why the committee made the recommendation

The committee reviewed evidence on who could best develop interventions, and agreed that the involvement of a multidisciplinary team was necessary. Based on their experience that services and available staff vary by area, and that the make-up of multidisciplinary teams needed to flexible, they agreed it was not useful to specify the exact composition of the team but agreed with previous NICE recommendations on essential core members.

#### How the recommendation might affect practice

The recommendation reflects general principles of care and is largely in line with current practice, so is not expected to have an impact on resources.

#### Return to recommendation

### Context

Overweight and obesity are chronic, relapsing and progressive conditions characterised by excess body fat. They are associated with an increased risk of morbidity and mortality. The 2021 Health Survey for England estimated the prevalence of obesity in adults in England to be 26%, with overweight affecting a further 38%. The same survey estimated that 10.1% of children aged 4 to 5 were living with obesity, with a further 12.1% living with overweight. At age 10 to 11, 23.4% were living with obesity and 14.3% living with overweight.

Government estimates indicate that the current costs of obesity in the UK are £6.5 billion to the NHS and £27 billion to wider society. It is estimated that obesity is responsible for more than 30,000 deaths each year. On average, obesity reduces lifespan by 9 years, preventing many people from reaching retirement age. It increases the risk of developing many diseases. For example people living with obesity are 3 times more likely to develop colon

cancer, more than 2.5 times more likely to develop high blood pressure (a risk factor for heart disease) and 5 times more likely to develop type 2 diabetes. Given the financial implications of overweight and obesity to society and the far worse health and social care outcomes, most interventions that address overweight and obesity are likely to be cost effective or even cost saving from the wider public sector perspective.

Evidence shows that the greatest rates of adult obesity are seen in the most deprived parts of the country. The difference is particularly pronounced for women. In the most deprived areas 39% of women are living with obesity, compared with 22% in the least deprived areas. This disparity highlights the importance of identification, and subsequent uptake of overweight and obesity management services, to reduce health inequalities.

Currently, people who would benefit from overweight and obesity management interventions are identified opportunistically. The lack of active case finding may mean that conditions such as type 2 diabetes are underdiagnosed in people of ethnic minority backgrounds whose risk is increased at a lower BMI and waist circumference.

Standard management of overweight and obesity includes advice on diet and physical activity, behaviour-change strategies. Management may also include medicines and surgery. New evidence identified since this guideline was first published may help to refine interventions that address diet, physical activity and behaviour change, and inform implementation in specific settings.

# Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the <u>NICE topic page on obesity</u>.

For full details of the evidence and the guideline committee's discussions, see the evidence reviews. You can also find information about how the guideline was developed, including details of the committee. NICE has produced tools and resources to help you put this guideline into practice. For general help and advice on putting our guidelines into practice, see resources to help you put NICE guidance into practice.

# **Update information**

November 2024: This guideline updates and replaces NICE's guidelines on:

- Preventing excess weight gain (NG7, published March 2015).
- Obesity: identification, assessment and management (CG189, published November 2014)
- Weight management: lifestyle services for overweight or obese adults (PH53, published May 2014)
- Weight management: lifestyle services for overweight or obese children and young people (PH47, published October 2013)
- BMI: preventing ill health and premature death in Black, Asian and other minority ethnic groups (PH46, published July 2013)
- Obesity: working with local communities (PH42, published November 2012)
- Weight management before, during and after pregnancy (PH27, published July 2010)
- Obesity prevention (CG43, published December 2006)

We have reviewed the evidence and made new recommendations, if relevant, on:

- prevention in schools and nurseries
- general principles of care
- identification, assessment and referral
- behavioural overweight and obesity management interventions
- dietary advice
- specific advice for people from ethnic minority backgrounds
- multidisciplinary teams for children
- raising awareness of interventions
- planning and funding services and interventions.

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We have merged and deleted some recommendations to:

- avoid duplicating other NICE guidance
- remove duplication or improve alignment between recommendations from different guidelines.

We have also made some changes without an evidence review (marked as amended 2024) to:

- remove strategies that are no longer standard practice or considered appropriate
- align recommendations with changes in service structure
- emphasise respectful, non-judgemental care and communication, and the need to take into account wider determinants of overweight and obesity.

For more information about how the original guidelines were amalgamated and any changes that were made to the recommendations, see the summary of deleted and amended recommendations.

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