Obesity: identifying, assessing and managing obesity in adults, young people and children

Information for the public
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About this information

NICE guidelines provide advice on the care and support that should be offered to people who use health and care services.

This information explains the advice about obesity that is set out in NICE guideline CG189.

This is a partial update of advice on obesity that NICE produced in 2006. This information is about the identification, assessing and management of obesity. Public health recommendations will be covered in separate guidance.

Does this information apply to me?

Yes, if you're an adult, child or young person, or the parent or carer of a child or young person (aged 2 years and older) who is overweight or obese.
It does not cover people of a healthy weight, pregnant women or children under 2 years old.

**Obesity**

Obesity (being very overweight) is a major health issue. Being obese can contribute to a range of health problems, including heart disease, type 2 diabetes, osteoarthritis, sleep apnoea (interrupted breathing during sleep) and some cancers, as well as psychological problems (see Other NICE guidance for details of our guidance on these health problems). More people in the UK are becoming overweight or obese than in the past, and this rise is expected to continue.

Treatments for people who are obese can include increasing physical activity, changing your diet so you take in fewer calories, drugs to help you lose weight, bariatric (weight loss) surgery, or a combination of some or all the above. People who are treated for obesity will also usually need regular long-term follow-up care, for example to help them adjust to and stick with their new lifestyle or to help them stay healthy after surgery.

**Your care team**

A range of professionals who specialise in different areas of treatment or support may be involved in your care. These could include doctors, specialist nurses, dietitians, psychologists, physiotherapists, exercise specialists and bariatric surgeons. All of these professionals will be trained and experienced in providing personalised support and care for people who are overweight or obese, and this will be given in suitably-equipped, appropriate settings.

**Working with you**

Your care team should talk with you about obesity. They should explain any tests, treatments or support you should be offered so that you can make an informed choice of what is best for you. For adults, your family or carer can be involved in helping to make decisions, but only if you agree. For children and young people, your parent or carer may be involved in helping to make decisions depending on your age. There are lists of questions on obesity in general, lifestyle and diet, medicine for obesity and surgery you can use to help you talk with your care team.
You may also like to read NICE’s information for the public on Patient experience in adult NHS services. This sets out what adults should be able to expect when they use the NHS. We also have more information on the NICE website about using health and social care services.

Some treatments or care described here may not be suitable for you. If you think that your treatment does not match this advice, talk to your care team.

Obesity and being overweight

Because obesity can lead to so many health problems, it's important to help and support people who are obese or overweight to lose weight. Healthcare professionals use a measure called body mass index (BMI) to help decide if you are overweight or obese.

Your BMI is your weight in kilograms (kg) divided by the square of your height in metres (m$^2$). If you want to work out your BMI, you can use an online BMI calculator.

What BMI means for adults

- Between 18.5 and 24.9 – healthy weight.
- Between 25 and 29.9 – overweight.
- Between 30 and 39.9 – obese.
- BMI of 40 or more – severely obese.

In adults, BMI is used as an estimate of body fat. Different people are affected by obesity at different BMIs. For example, people who are very muscular or some older people may not be at high risk of health problems due to their weight even if their BMI is over 25. But, people from black, Asian family origin or minority ethnic groups may be at increased risk even if their BMI is 25 or under (see Other NICE guidance for details of our guidance on BMI and waist circumference in black, Asian and minority ethnic groups). This means you might be advised to lose weight or keep your weight steady even if your BMI looks like it is OK or a little high. If this is the case your healthcare professional should explain why.
What BMI means for children

For children and young people, a different system is used. The healthcare professional should check their BMI against special charts that take account of their age and sex to decide if they are overweight or obese. You can also use an online BMI calculator, but if you do remember it must be one that says it will work for children as adult BMI calculators will give the wrong results. See Other NICE guidance for details of our guidance on obesity in children and young people.

Assessing your weight

If you think you are overweight and go to see a healthcare professional, such as your GP or a nurse at your GP surgery, they should talk to you about your concerns. They may ask to check your height and weight, and use these to work out your BMI. Your healthcare professional may ask to check your height and weight to see if you are overweight even if you are visiting them for some other reason.

Healthcare professionals may sometimes measure your waist size as well, as this can help them work out if you are at risk. Even though two people may have the same BMI, the one with the bigger waist measurement is more likely to develop health problems as a result of being overweight. If you are a man, your chance of developing health problems is higher if your waist measurement is more than 94 cm (37 inches), and higher still if it is more than 102 cm (40 inches). If you are a woman, your chance of developing health problems is higher if your waist measurement is more than 80 cm (31.5 inches), and higher still if it is more than 88 cm (34.5 inches).

Your healthcare professional should also ask you:

- whether your weight is causing you any problems
- about your diet and how much physical activity you do
- if there is anything else that might be contributing to your putting on weight, such as problems in your personal life.

They should also check whether you have any medical conditions that could put you at higher risk of problems related to being overweight. You may be offered a blood pressure check and some blood tests, for example, to check your cholesterol and blood sugar.
levels. Children and young people who are seriously overweight may be offered an appointment at a hospital for some of these tests.

You may be asked to come back for another appointment, perhaps to discuss test results. This should be with the same healthcare professional if possible.

All this information can help your healthcare professional decide what types of advice and support could be useful for you. They should talk to you about the possibilities and what is involved, including:

- the benefits of eating a healthier, lower-calorie diet and doing more physical activity to help you lose weight
- how you feel about making these changes
- any questions you have.

If it's not the right time for you to make changes, you can take up this offer of help later on if you change your mind.

If you have health problems related to being overweight or obese, such as type 2 diabetes or high blood pressure, these should be treated when they are diagnosed. Treatment should not be put off until you have lost weight, but losing weight may help these problems.

Questions to ask about obesity

- What is my BMI, and does it mean I am overweight or obese?
- Might I be at risk even though my BMI isn't too high?
- What problems might I get from being overweight or obese?
- Can you give me information on how I could change my lifestyle to help me lose weight?
- As well as lifestyle changes, is there anything else I can do to help me lose weight?
Do I need to be treated for anything else related to my weight, and does that need to happen right now?

How much weight should you lose?

For most people, losing and keeping off even a small amount of weight – about 5% – can have benefits, such as reducing your risk of developing diabetes or lowering your blood pressure. Losing 5% of your weight means losing 5 kg if you weigh 100 kg, or 11 pounds if you weigh 16 stone. Your healthcare professional can help you set realistic targets – for example working out how much weight you should aim to lose each week (at most 0.5 to 1 kg a week, which is about 1 to 2 pounds) or setting lifestyle goals.

Help to change your lifestyle

You and your healthcare professional should decide together what treatment or other help is best for you. This should take into account your preferences and your general health and fitness. See Other NICE guidance for details of our guidance on lifestyle changes and exercise in overweight and obese adults.

If you are ready to lose weight, you should be offered regular appointments. If possible, you should see the same health professional each time. This person should offer you support and advice.

Most people should first be offered advice and help with changing their lifestyle – that is, becoming more active and using more energy than they get from the calories they take in. Getting support from your family and friends too will make it easier to change your lifestyle.

If you are helping your child to stabilise their weight or lose weight, this will be easier if the whole family makes the same lifestyle changes. If you are also overweight you should be encouraged to try to lose weight at the same time as your child. Parents should usually take responsibility for making changes to their child's diet, and encouraging them to become more active, particularly if the child is under 12. But the preferences and views of the child or young person should also be taken into account when deciding what changes to make.
How much physical activity should you be doing?

All adults should try to do at least 30 minutes of moderate physical activity on 5 or more days a week. (Moderate activity makes your breathing and heartbeat get faster and makes you feel warm.) This lowers your risk of developing medical problems such as diabetes and heart disease. But many people need to do 45 to 60 minutes of moderate activity a day to stop them gaining weight. If you have lost weight, you may need to do as much as 60 to 90 minutes a day to stop you putting it back on again. This activity can be in a single session or several sessions lasting 10 minutes or more. You could try:

- brisk walking, cycling or climbing stairs, which can be part of your everyday routine
- gardening
- going to the gym or an exercise class, or swimming.

Your choice of activities should be based on what you enjoy, your general health and fitness, and any disability you may have. Your healthcare professional can advise you if needed. Try to reduce the amount of time you are sitting down and inactive, for example watching television or at a computer. And remember, it's worth being more active even if you don't manage to lose much weight, because it can improve your health in other ways. Even small changes can help.

Children should do at least 60 minutes of moderate activity each day – this can be in one go, or in shorter sessions of 10 minutes or more. Children who are already overweight may need to do more than 60 minutes of activity to lose weight. Good ways to encourage children to become more active include:

- reducing the amount of time they spend sitting down, for example watching the television, on a computer or playing video games
- giving them the chance to be more active generally, for example by walking, cycling, or playing active games
- helping them take part in regular activities that they enjoy, such as dancing, sports or swimming.
Making it easier to change your lifestyle

It can be difficult to make changes to your lifestyle to help you lose weight. Your healthcare professional will understand this, and should give you all the encouragement they can.

They should also be able to tell you about techniques to help you change your lifestyle or arrange an appointment with a trained professional who can do this. The techniques might include:

- avoiding situations that you know may tempt you to overeat
- eating more slowly
- being confident so that other people don't persuade you to give up your plans to eat healthily and become more active
- changing the way you think about food and being active
- ways to stop you putting weight back on and what to do if this happens.

If your child needs to lose weight they may be taught some of these techniques. They may also be asked to agree with their healthcare professional some realistic goals to do with eating a healthier diet or being more active. You can help by setting your child a good example, and by giving them lots of praise and encouragement.

Do you need to go on a special diet?

For any diet to work and for you to lose weight, you need to use up more energy than you take in from what you eat. To do this, your healthcare professional will recommend that you cut down on the amount of calories you take in and eat more healthily in the long term, and be more active to use more calories up. Any changes in diet should take into account your preferences, and fit in with healthy eating advice.

There are different types of diet that your healthcare professional may recommend. Some reduce the amount of energy or certain types of food you take in, and others allow a fixed amount of calories a day. On a low-calorie diet, your food provides only 800 to 1600 kcal a day. An energy deficit diet is where you take in less than your body needs just to stay the same weight (usually 600 kcal a day less). Or, you may be recommended a diet low in fat.
Whatever diet you follow, your healthcare professional should make sure you get plenty of support while on the diet and afterwards to help you keep from putting weight that you lose back on.

Another type of diet you may be offered is a very-low-calorie diet. On these diets, your food provides only 800 kcal a day or less.

Your healthcare professional may recommend a very-low-calorie diet if you need to lose weight quickly (for example, if you are going to have joint replacement surgery), but these diets aren’t used for routine weight loss. You should never follow a diet that provides only 800 kcal or less a day unless this is being closely monitored by your doctor.

If your healthcare professional does recommend that you follow a very-low-calorie diet this should not be for more than 12 weeks (either in one go or in shorter periods with breaks). You should also have other treatment and support to make sure you stay healthy while on the diet.

Before you start your very-low-calorie diet your healthcare professional should discuss the risks and benefits of the diet with you, and what happens when you finish the diet. You may be offered counselling and assessment to check if you have an eating disorder.

**Follow-up**

When you finish your diet you will get follow-up treatment to help prevent you putting weight back on, which can often happen after these diets. This will help you with any medical problems, getting used to a normal, balanced healthy diet again and ways to be more active.

**Advice on food for children**

Your healthcare professional may recommend changes in what your child eats, but this should always be with other treatment or support, such as help with becoming more active, and should be changes they can stick to. Any advice on food should fit in with general advice on healthy eating, and avoiding sweets and sugary drinks. Ideally, the whole family should make the same changes.
Questions to ask about your lifestyle and diet

- Am I active enough, and can you give me some ideas about how to be more active?
- How can I help my whole family to eat more healthily?
- I am finding it very difficult to change what I eat. Is there anyone who can help me?
- Are there any local support groups or organisations that can help me do something about my weight?
- How can I keep my weight stable and not put it back on once I have lost it?
- How can I help an older person or a child change their lifestyle and lose weight?

Is there a medicine that can help you lose weight?

There is a medicine – called orlistat – that people can take to help them lose weight. It works by stopping your body from absorbing as much fat from your food. It is not suitable for everyone, you may need to take supplements to make sure you get all the vitamins and minerals you need, and it can have side effects. Your healthcare professional may suggest trying it if you have been following advice on eating less and being more active for some time, but have still not lost enough weight. You may also be offered the medicine to help you maintain or lose weight if you are going to have surgery for obesity but cannot have an operation straight away.

The medicine is normally recommended only for people with a BMI over 30. But if you might be at risk of problems related to being overweight or obese – for example if you have diabetes or high cholesterol – your doctor may suggest trying orlistat if your BMI is 28 or above. If you have type 2 diabetes it may take longer to lose weight, so with the help of your healthcare professional you should set realistic goals that are easier to reach.

You should have an opportunity to ask any questions you want about the possible benefits and side effects before you decide whether to go ahead with taking the medicine. If you
do decide to take it, you should have regular appointments with your doctor. You will also still need advice and support to help you continue with the changes to your lifestyle. If you don't manage to lose weight while taking the medicine, your doctor may advise you to stop taking it.

Once you have lost weight, your doctor should talk to you about whether to carry on taking the medicine to help you keep the weight off.

For children, only a specialist should prescribe medicine to help them lose weight, and even then this should only happen if their specialist considers that their weight is putting their health at serious risk. Children who are taking medicine to help them lose weight are looked after by a specialist team who give extra help with lifestyle changes and check how the child is getting on with the medicine.

Questions to ask about medicine for obesity

- What are the pros and cons of taking medicine for obesity?
- What are the side effects of the medicine?
- How quickly will I start to lose weight?
- How long can I take the medicine for, and how long will I need to take it for?
- Will the medicine help me keep weight off that I have already lost?
- Will I put all the weight back on when I stop taking the medicine?
- When would medicine be suggested to help a child lose weight?

Will you need to see a specialist about losing weight?

While many people get all the help and treatment they need from their GP or other members of the team at the surgery, your GP may refer you to a specialist if:

- you need tests to see if there is a medical condition causing your weight problems
• you have other medical conditions that need complex treatment

• an operation or other specialist treatment might help you.

If your child needs to lose weight your GP may suggest they see a specialist for help with this, especially if they have another medical condition, or special needs (for example, a learning disability).

**Could an operation help you?**

Sometimes an operation may be suggested. There are several different types of operation. They involve reducing the size of the stomach, so that the person eats less food, and may also bypass some of the gut, so that the body absorbs less of the food.

For children, surgery is not generally recommended. In very rare cases, an operation may be suggested for a young person who has been through puberty and is seriously obese. This will need to be done by a team with experience and special skills in treating young people, and the young person will need support before and after the operation.

**Operations for adults**

An operation is only recommended for people who are seriously obese (a BMI over 40), have tried all the other ways of losing weight without success, and have already been treated by a specialist obesity team.

Other groups of people who are overweight or obese may still be assessed for bariatric surgery. An assessment means your healthcare professional will check to see if an operation might be best for you if you're in one of these groups. It doesn't mean you will definitely be offered an operation, or that an operation will be the right choice for you.

You should be prioritised for a bariatric surgery assessment if you have type 2 diabetes and have a BMI of 35 or over (this is particularly important for black, Asian family origin or minority ethnic groups – see Assessing your weight).

You may be considered for a bariatric surgery assessment if you have a BMI of 30–34.9 and have type 2 diabetes. If you are of Asian family origin and have type 2 diabetes, you may still be considered even at a lower BMI.
Is an operation right for me?

These are major operations. If your doctor thinks an operation may be suitable for you, you should talk in detail with the surgeon and the specialist obesity team – who work with other healthcare professionals who will be involved in your care – about the possible problems as well as the benefits. You will need checks to make sure you don't have any medical conditions that could make the operation dangerous for you, and that you will be able to cope with:

- the operation itself
- recovering from the operation
- adjusting to the long-term lifestyle changes needed
- the need for ongoing diet supplements and monitoring.

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Follow-up care

You will need to make long-term changes to your eating habits to get the full benefit from the operation, and the team will need to be sure you can do this. You will also need to agree to regular appointments with the team afterwards to check your health (to make sure any medication you have is working well and that you aren't having any other problems) and diet (you may need extra supplements and nutrients), and you should be given help and support to recover and adjust after your surgery.

This follow-up and monitoring should carry on for at least 2 years with the same group of healthcare professionals who cared for you at the time of your surgery. After that, you will still need to have your health, diet and need for any extra nutrients and supplements checked regularly by your doctor for the rest of your life.
obesity

- Why are you suggesting an operation for me?
- What does the operation involve, and what are the risks?
- How quickly will I lose weight after the operation?
- After I lose weight, am I likely to put some or all of it back on again?
- What will I be able to eat after the operation?
- What care and support will I need after the operation?
- Are there any local peer support groups I could join?
- Will I need to take medicine or supplements after the operation for the rest of my life?
- Does my child really need an operation for their obesity?

Sources of advice and support

- British Obesity Surgery Patients Association (BOSPA)
  www.bospa.org

- Weight Concern
  www.weightconcern.org.uk

- WLSinfo, 0151 222 4737, enquiries@wlsinfo.org.uk
  www.wlsinfo.org.uk

You can also go to NHS Choices for more information.

NICE is not responsible for the quality or accuracy of any information or advice provided by these organisations.
Other NICE guidance

- Exercise referral schemes to promote physical activity (2014) NICE guideline PH54
- Overweight and obese adults: lifestyle weight management services (2014) NICE guideline PH53
- Managing overweight and obesity among children and young people (2013) NICE guideline PH47
- BMI and waist circumference – black, Asian and minority ethnic groups (2013) NICE guideline PH46
- Preventing type 2 diabetes: risk identification and interventions for individuals at high risk (2012) NICE guideline PH38
- Laparoscopic gastric plication for the treatment of severe obesity (2012) NICE interventional procedure guideline 432
- Preventing type 2 diabetes: population and community level interventions (2011) NICE guideline PH35
- Type 2 diabetes (2009) NICE guideline CG87

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