

Patient information from BMJ

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Obesity - drugs and surgery

Obesity means having more body fat than is healthy. It usually happens when you take in more calories than your body uses as energy. These extra calories are stored as fat.

Losing weight takes time and effort, and requires making changes to your diet and activity level. While it can be challenging, these changes will help you feel better and reduce your risk of serious health problems. Some people may also be offered medications or surgery to help with weight loss.

You can use this information to talk with your doctor about which approach to weight loss is best for you.

What is obesity?

Being obese means being very overweight. This can greatly increase your chance of serious health problems such as:

- diabetes
- high blood pressure
- arthritis
- cancer, and
- heart disease.

Obesity happens when you eat more calories than your body uses. These extra calories are stored as fat, leading to weight gain. The types of food you eat, portion sizes, and how active you are all play a role in weight gain.

Lifestyle choices and eating behavior are the main causes of obesity. But other things can lead to weight gain, such as specific genetic conditions, hormonal issues, and some medications.

Most doctors use the **body mass index** (BMI for short) to work out whether you're at a healthy weight. Your BMI is a single number that's worked out based on your height and weight. Doctors say someone is obese if their BMI is 30 or higher.

What are the treatment options for obesity?

If you are obese, your doctor will recommend various strategies to help you lose weight. Losing weight can reduce your risk of serious health problems. To lose weight, you need to take in fewer calories than you use.

Many people do this through a **weight loss program** that combines:

- Improving your diet
- Exercising more
- Engaging in talking treatments.

Lifestyle changes are the main approach to treating obesity. Some people also take **medications** to help them lose weight. However, these must be used alongside diet and exercise.

If your BMI is over 35, or your weight is putting your health at high risk, your doctor may suggest **surgery**.

Medications

There are a few medications that can help with weight loss. They either come as injections or as pills.

Medications that you take as a **shot** include semaglutide, liraglutide, tirzepatide, and setmelanotide. These medications work by controlling your appetite to reduce hunger and make you feel full sooner. This can make it easier to eat less and lose weight. You will have one of these injections either once a day or once a week, depending on the type.

These injections can also cause some side effects. Semaglutide, liraglutide, and tirzepatide may cause stomach issues, headache, or tiredness, and can lower blood sugar in people with diabetes. Setmelanotide may cause stomach issues, headache, shot-site reactions, or darkening of the skin.

Medicines that you take as a **pill** include:

- **Naltrexone/bupropion:** This is a pill that combines two medications. It helps reduce appetite, which can make it easier to eat less and lose weight. It may also help if you want support to quit smoking or if you have depression.
- **Phentermine/topiramate:** This is a pill that combines two medications. It works in the same way as naltrexone/bupropion. Phentermine/topiramate may also help if you have migraines, because topiramate treats migraines.
- **Phentermine alone:** This medicine reduces appetite, but can only be used for a short amount of time.
- **Orlistat:** Orlistat is a medication that stops your body from absorbing some of the fat from the food you eat. This can help you lose weight.

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- **Diethylpropion:** This medication helps reduce appetite, making it easier to eat less and lose weight. It is only for short-term use. However, this medication can cause serious side effects in some people, and is no longer available in some countries.

These pills can also cause some side effects. Orlistat can cause stomach issues like diarrhea. Topiramate can cause birth defects, so women who can become pregnant should use contraception.

Your doctor will help you choose the best weight-loss medication for you based on your overall health and medical history. It will also depend on how you would like to take the medication. For example, if you don't feel comfortable with shots.

You will likely be offered semaglutide or liraglutide first, because research shows they work the best for weight loss and heart health. If you have a rare genetic disorder like POMC, PCSK1, or LEPR deficiencies, or Bardet-Biedl syndrome, you will be offered setmelanotide first.

Weight loss (bariatric) surgery

If your BMI is over 35, your doctor may suggest surgery. This surgery makes your stomach smaller, which helps you eat less and lose weight. This is called weight loss surgery, or bariatric surgery.

Weight loss surgery is a major operation. Your doctor will need to make sure you meet certain requirements before considering surgery.

Surgery is usually done only if your weight is dangerous to your health, and if you've tried other ways of losing weight. You need to follow a strict diet after the operation.

There are several types of weight loss surgery. The main ones are:

- **Sleeve gastrectomy:** The surgeon removes most of your stomach. The stomach that is left is small and narrow.
- **Gastric bypass:** The surgeon makes a small pouch at the top of your stomach. Your small intestine is then moved and joined to this pouch. Food goes into the pouch and straight into the small intestine. The rest of your stomach is closed off and no longer stores food.
- **Gastric banding:** The surgeon places a band around the top of your stomach. This makes a small pouch above the band. The band can be adjusted to control how much food can pass through.
- **Biliopancreatic diversion:** The surgeon removes the lower part of your stomach, leaving a small pouch at the top. This pouch is then connected to the lower part of your small intestine. Food then skips most of the small intestine.

You will have to change how you eat after surgery, as you will only be able to eat a small amount before your stomach is full.

Some people have problems with their digestion, including nausea, diarrhea, constipation, indigestion, and heartburn. You may also need to take supplements to make sure you get all the vitamins you need.

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Some people get problems from surgery, such as infections, bleeding, and pneumonia.

To reduce your chance of problems during and after surgery, you may need to lose some weight before your operation. It's also best to quit smoking before surgery.

What happens next?

How much weight you lose depends on what type of treatment you get.

Research shows that people who take medication along with making lifestyle changes can lose about 3% to 11% more weight than people who make lifestyle changes alone.^[1]

Weight loss surgery can help you lose a lot of weight. Research shows that people lose between 18% and 35% of their body weight within 5 years, depending on the type of surgery.^[2] It can also improve conditions such as type 2 diabetes and high blood pressure.

However, results are different for everyone, and some people don't lose any weight. Others may lose some weight, then gain it all back. The amount of weight you lose depends on what you eat and how much exercise you do alongside medication or surgery.

1. Grunvald E, Shah R, Hernaez R, et al. AGA Clinical Practice Guideline on pharmacological interventions for adults with obesity. *Gastroenterology*. 2022 Nov;163(5):1198-225.
2. Brown WA, Brown DL, Holland JF, et al. Metabolic bariatric surgery generates substantial, sustained weight loss and health improvement in a real-world setting. *ANZ J Surg*. 2025 May;95(5):895-903.

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