

OBESITY

What is obesity?

- ▶ Obesity is a health issue in which someone has so much extra fat that it negatively impacts their health.
- ▶ Obesity is most often measured by body mass index (BMI), which looks at body weight compared to height.
 - Someone is of healthy weight if their BMI is 18.5-24.9.
 - It is healthy to have some body fat. In fact, a healthy level of body fat is needed to survive.
 - Fat cells give energy and help get rid of waste in the body. They also release substances of their own.
 - Someone is overweight (meaning some extra body fat over healthy levels) if their BMI is 25 to 29.9.
 - Someone is obese if their BMI is 30 or higher.
- ▶ Over 60 percent of American adults weigh more than is healthy. For those who are obese, health care costs are almost \$1,500 more per person per year than someone of healthy weight.
- ▶ Being obese can have many harmful health effects.
 - Being obese harms the body because of the way fat cells act.
 - Substances made by too many fat cells cause low-level inflammation, or swelling, that doesn't go away. This can harm blood vessels, muscles (including the heart), and organs, such as the liver and pancreas. It also raises the risk for many types of cancer.
 - By having extra fat mass, someone who is obese has more strain on their joints and tissues causing more pain.



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Causes and Risk Factors

Obesity most often starts as a child, and children who are above a healthy weight are much more likely to be obese as adults. While there is some data that show genetic links (meaning if someone in your family is obese, you are more likely to be), there are many things that could lead to obesity.

Diet

- The modern Western diet:
 - Many high calorie low nutrition foods (refined carbohydrates, hydrogenated fats and animal fats).
 - Excessively large portions.
 - Not enough nutritious fruits, vegetables, and whole grain foods.
 - Away too little dietary fiber.
- Today, food that is healthy and has less calories is often less accessible and costs more money.
- “Fast food,” which is more convenient and costs less, often has less nutrients, bigger portions and more calories from sugars and fat.
 - Many people don’t realize how many calories are in the food they are eating, or they underestimate how much they are eating.
 - Larger portions are more common and getting more food for less money is thought to be a good value, even if it is not healthy.
 - Many extra calories are in things people drink, like sodas, juices, and sweetened coffee and tea drinks.



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Social Causes

- The demands of a busy life handling work and family (and often much more) leaves little time for many to cook at home.
- Many modern advances (cars, working from home, screen watching, etc.) have made people less active, and lacking in regular exercise.
- Many people also feel comforted by food, or they use eating as a way of dealing with stress, or for comfort.

Secondary Causes

- Some causes of being overweight or obese come from other health issues or treatment of those health issues.
- Some medications cause weight gain, even when a healthy diet and exercise are done often.

Physiologic Causes

- There was a time when humans had to hunt or gather their own food. With this, human bodies stored calories to keep from starving when there was little food.
- Conserving energy to prevent weight loss is no longer needed in the same since our access to food has changed greatly, but our bodies have not adapted to help us regulate against weight gain.
- Low thyroid hormones in some people can slow metabolism and cause weight gain.
- New data show how special hormones and other substances in the body can impact feelings of hunger and fullness. In people with obesity, these substances are changed. More research is needed to better understand this complex process.



Gut Microbiome

- Between the Western diet and the common use of antibiotics, it has been found that many of us do not have the proper balance of bacteria in our guts.
- New data shows that this lack of diversity can impact how a body handles calories and weight gain.
- More studies are needed to explore this potential cause.



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Conditions Linked to Obesity

Experts have been able to show a link between high BMI (being overweight or obese) and a higher risk of many health issues, such as:

- Heart disease.
- Stroke.
- High blood pressure.
- Type 2 diabetes.
- Many types of cancer (such as endometrial, breast and colon cancer).
- Liver disease.
- Gallbladder disease (such as gallstones).
- Infertility (not being able to make a baby).
- Osteoarthritis.
- Depression.
- Sleep apnea.
- Heartburn (reflux).
- High cholesterol and triglycerides (linked to heart disease and stroke).

Some of these may not seem as serious, but some can be very dangerous. More than one of these health issues can team up to harm your heart and blood vessels.



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Treatment

Losing weight, and keeping it off, calls for changes to how you live your life, as well as to your connection to food and exercise.

If you've tried on your own and still find that you cannot get yourself down to a healthy weight, there are other choices to think about. **Talk to a gastroenterologist about next steps that fit your needs. For more tools for patients to work with a gastroenterologist to treat obesity, visit our POWER guidelines.**

Reducing Calories

- A nutrition expert can help you ease into healthier eating and plan meals that fit with your schedule and preferences.
 - Check with your health plan to see if it covers sessions with a registered dietitian (RD).
 - Talk to your doctor about resources they have to help you cut calories and eat healthier.
- It is helpful to learn more about your normal eating habits, as many of our food choices become part of our routine.
 - Try keeping a food diary for a week to better see what you are eating and drinking, how much you are eating, and how often you are eating.
 - Be as detailed as you can. The results after a week could be surprising.
- The best plan is to look at proper nutrition as a permanent lifestyle change and not a diet, which can feel temporary.
- The goal is to lose weight slowly, only 1 to 2.5 pounds per week.



- Your main goals when planning your meals and snacks should be:
 - Add more complex dietary fiber (like beans, whole grains or nuts).
 - Add more fruits and vegetables.
 - Stay away from refined carbohydrates (like white bread or white rice).
 - Stay away from liquid calories (like soda, juices and coffee drinks).
- When changing how and what you eat, keep in mind that small changes add up. You can try:
 - Eating one less snack per day.
 - Switching from juices or soda to flavored mineral water.
 - Baking or broiling food instead of frying it.
 - Eating salads with lower calorie dressings and toppings.

Increase Physical Activity

- Studies have shown that people who exercise regularly are most successful at not only losing weight, but keeping weight off.
- Exercise changes the body and offers many health benefits as well as helping weight loss and weight maintenance.
- Before you start any fitness program, check with your doctor, especially if you are 45 or older or are not used to regular physical activity.
- Once you get the all-clear, the easiest thing to do is go for a walk.
 - Start slowly, for 20 to 30 minutes, two or three days per week, and build up to a brisk pace for 45 to 60 minutes, five days per week.
 - You do not have to do all your walking for the day at once: studies have shown that people who break up their walking into smaller increments still lose weight.
 - Adding weight training as your endurance gets better will grow your muscle mass and help your body burn more fat.



Social Support

- Remember the buddy system. Research shows that joining weight loss support groups, in person or online, can help people lose weight and stay on track.
- Talk to your doctor about resources that can connect you with others going through a similar weight loss journey.

Drugs for Weight Loss

Taking on a healthy diet and adding more physical activity are the cornerstone of weight loss. However, sometimes they are not enough to help with significant weight loss to get you to a healthy weight. If you are still unable to reach or stay at a healthy weight, your doctor may order a drug to give your body extra support to lose more weight.

Prescription drugs meant specifically for weight-loss are approved by the FDA only for people who have a BMI of 30 or higher, or who have a BMI of 27 and an obesity-related health issue, like high blood pressure, type 2 diabetes or high cholesterol. Some FDA approved weight-loss drugs are:

- Phentermine (Adipex®)
 - o Most commonly used anti-obesity drug in the U.S.
 - o Approved for short-term use (three months).
- Orlistat (Xenical®)
 - o Available in both prescription and nonprescription strengths.
 - o Known as Alli®.
 - o Stops the intestines from absorbing up to one-third of dietary fat.
 - o It may be taken for up to one year.
 - o Talk to your doctor first before you buy Orlistat.
- Phentermine/topiramate ER (Qsymia®)
 - o Has been shown to make you less hungry.
 - o Your doctor will look at your weight loss after 12 weeks on this drug.



- Lorcaserin (Belviq®)
 - o A new drug which acts in your brain to make you less hungry by boosting your feelings of being full.
 - o Your doctor will check your weight loss after 12 weeks on this drug.
- Bupropion SR/naltrexone SR (Contrave®)
 - o Your doctor will check your weight loss after 12 weeks on this drug.
- Liraglutide (Saxenda®)
 - o Works to make you feel less hungry, boost feelings of fullness and slow digestion.
 - o Your doctor will check your weight loss after 16 weeks on this drug.
- Drugs for weight loss should not be used alone, but rather with the practice of cutting calories and adding more physical activity each day.
- Drugs for weight loss are **not** a long-term solution. They are meant to get you to a healthy weight and then are meant to be stopped, which is why eating healthily and exercising are so important.
- Keep in mind that all of these drugs have side effects and often show only modest weight loss.
- The success of other nonprescription weight loss products is not known.
- **Based on what other drugs you're taking and your medical history, weight-loss drugs may or may not be the right choice for you.**



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Weight-loss Procedures and Surgeries

If your BMI is higher than 40, or if it's between 35 and 40 and you have an obesity-related disease, like type 2 diabetes, heart disease, high cholesterol or severe sleep apnea, and you have not been able to lose weight, or keep weight off, you may be a candidate for a weight-loss procedure or surgery. **Weight-loss surgery is a life-altering event that has risks, so it is looked at as a last resort. It must be discussed with a doctor.**

- ▶ *Weight-loss surgery is not something that can be scheduled after one meeting with your doctor.*
- ▶ *Getting ready for the surgery involves counseling so you know the risks fully grasp how your life will change.*
- ▶ *Many doctors and surgeons suggest that a patient lose 5 to 10 percent of his or her body weight in the months **before** the surgery to lessen the risk of problems from either the anesthesia or the surgery itself.*
 - *Studies show that losing some weight before weight-loss surgery can shorten the hospital stay after the surgery, reduce surgical complications and result in greater weight loss from the procedure.*
- ▶ *Not all weight loss surgeries are covered by insurance, so be sure to speak your health plan first.*
- ▶ *Weight loss surgery calls for continued lifestyle changes, as well as input for many health-care experts, to make sure it is a success over time.*

Endoscopic Interventions

Intragastric Balloon (IGB)

- One or more balloons are filled with saline and placed in the stomach during an endoscopy.
- They stay in place for six months and are then taken out by a second endoscopy.
- They fill the stomach space and also change its function leading to weight loss.



Endoscopic Sleeve Gastroplasty

- This is a newer procedure which is done by a surgery during an upper endoscopy through the mouth.
- Makes the size of your stomach smaller by making a sleeve-like shape.

Bariatric Surgery

Laparoscopic Sleeve Gastrectomy

- This type of surgery involves closing off 75 percent of the stomach.
- The left over 25 percent forms a thin tube, or sleeve, that is joined to the intestines.
- This type of surgery can be the sole surgical procedure performed, or it may be performed in very obese patients in preparation for a more complex surgical gastric bypass later.

Laparoscopic Roux-en-Y Gastric Bypass (RYGB)

- RYGB accounts for 80 percent of all weight-loss surgeries in the U.S.
- A very small upper section of the stomach is fully sealed off from the lower section of the stomach and is reattached to the small intestine further down, making the surgery hard to reverse.
- RYGB works two ways:
 - First, it creates early fullness because of the small stomach pouch.
 - Second, less calories are absorbed, because part of the small intestine is bypassed.

Patients must have regular follow-up appointments after the surgery to make sure weight loss is happening, as well as to check for problems from the surgery, and for malabsorption of vitamins and minerals which can happen often.

