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Patient education: Losing weight (Beyond the Basics)

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INTRODUCTION

Excess weight gain is a major international public health problem and Americans are among the heaviest people in the world. The prevalence of obesity in the United States has continued to increase over time, and data suggest the same is true in many other countries as well.

Many people find that although they initially lose weight by dieting, they quickly regain the weight after the diet ends. Because it is so hard to keep weight off over time, it is important to have as much information and support as possible before starting a weight loss plan. You are most likely to be successful in losing weight and keeping it off when you believe that your body weight can be controlled. While it can be challenging to make the lifestyle changes needed to lose weight and improve your health, if you set goals and commit to them, you can be successful, especially if you develop a long-term relationship with a knowledgeable, supportive health care provider.

This article discusses how to get started with a weight loss plan, including changes in your behavior, what you eat, and weight loss medications. Weight loss surgery is discussed in a separate article. (See "[Patient education: Weight loss surgery and procedures \(Beyond the Basics\)](#)".)

More detailed information about weight loss is available by subscription. (See ["Obesity in adults: Overview of management"](#) and ["Professional level information"](#) below.)

STARTING A WEIGHT LOSS PROGRAM

It can really help to find a health care professional who has experience in helping people lose weight and make the lifestyle changes needed to keep the weight off. This could be a doctor, nurse, or other provider like a nurse practitioner or physician assistant. Developing a relationship with this person will help improve your chances of long-term success, as they can help you figure out the best plan for you, monitor your process, and provide advice and support along the way.

Different approaches and plans work for different people, so it's important to try not to get discouraged and to keep trying until you find something that works for you. Be careful about misinformation online and weight loss clinics with questionable ethics. Nothing out there is magic. Losing weight takes hard work, and keeping it off requires a plan that is sustainable long-term.

The first step is to determine your starting point, which includes weighing yourself and measuring your waist circumference. The body mass index (BMI) is calculated from your height and weight ([calculator 1](#) and [calculator 2](#)).

- A person with a BMI between 25 and 29.9 is considered overweight
- A person with a BMI of 30 or greater is considered to be obese

A waist circumference greater than 35 inches (88 cm) in women and 40 inches (102 cm) in men increases the risk of obesity-related complications, such as heart disease and diabetes. People who are obese and who have a larger waist size may need more aggressive weight loss treatment than others. Your health care provider can talk to you about your situation, how to set short- and long-term goals, and how to start working toward those goals.

Types of treatment — Based on your situation and medical history, your health care professional can help you determine what combination of weight loss treatments would work best for you. Treatments must include changes in lifestyle, physical activity, approach to eating, and, in some cases, weight loss medicines or a surgical procedure. Weight loss surgery, also called bariatric surgery, is reserved for people with severe obesity who have not had success with other approaches. (See ["Patient education: Weight loss surgery and procedures \(Beyond the Basics\)"](#).)

SETTING A WEIGHT LOSS GOAL

It is important to set a weight loss goal. Your first goal should be to avoid gaining more weight. Once you know your starting point, it is helpful to create milestones and health-related goals in order to start tracking your success.

If you are overweight or obese, losing 5 percent of your body weight is a reasonable initial weight loss goal. In the longer term, losing more than 15 percent of your body weight and staying at this weight is an extremely good result. However, keep in mind that even losing 5 percent of your body weight leads to important health benefits, so although your ultimate weight loss goal may be greater, try not to get discouraged if you're not able to lose more than this initially.

LIFESTYLE CHANGES

Programs that help you to change your lifestyle are usually run by psychologists, nutritionists, or other professionals. The goals of lifestyle changes are to help you change your eating habits, become more active, and be more aware of how much you eat and exercise, helping you to make healthier choices.

This approach to weight loss can be broken down into four parts:

- The triggers that make you want to eat
- Eating
- Setting goals and using rewards
- Integrating less sedentary (inactive) time and more active time into your day

Triggers to eat — Determining what triggers you to eat involves figuring out what foods you eat and where and when you eat them. To figure out what triggers you to eat, keep a record for a few days of everything you eat, the places where you eat, how often you eat, and the emotions you were feeling when you eat.

For some people, the trigger is related to a certain time of day or night. For others, the trigger is related to a certain place or activity, like sitting at a desk working or driving past a favorite fast-food outlet.

Eating — You can change your eating habits by breaking the chain of events between the trigger for eating and the act of eating. There are many ways to do this. For instance, you can:

- Use a smaller plate for meals
- Make a conscious effort to eat more slowly
- Add more colorful (non-white) foods to your meals
- Keep healthy snacks (like chopped raw vegetables, fruits, and nuts) around in case you get hungry between meals

The types of foods we eat on a regular basis are related to whether we gain or lose weight over time. Whole grains, fruits, vegetables, nuts, and yogurt are associated with maintaining a lower weight, while foods like french fries or chips, sugar-sweetened beverages, and red or processed meats are associated with weight gain. High fructose-containing beverages, trans fats, and highly processed foods are particularly harmful for health and maintaining a healthy weight.

Setting goals and using rewards — Rewarding yourself for good eating behaviors can help you to develop better habits. The idea is not to reward weight loss, but to reward yourself for changing unhealthy behaviors to healthy ones.

Do not use food as a reward. Some people find monetary rewards (eg, buying a new piece of clothing), personal care (eg, a haircut, manicure, or massage), or leisure activities (eg, watching a favorite TV show or playing a game) to work well. Giving yourself small rewards each time you make better eating choices helps reinforce the value of the good behavior.

It's important to set clear behavior goals as well as a time frame for reaching your goals. For example, you might set a goal to avoid snacking after a certain time every day for a week, with a longer-term goal to lose 5 percent of your weight by a certain date, and 10 or 15 percent by a later date. Reward small changes along the way to your final goal.

Other factors that contribute to successful weight loss — Changing your behavior involves more than just changing unhealthy eating habits; it also involves finding people around you to support your weight loss, reducing stress, and learning to resist temptations.

- Establish a "buddy" system – Having a friend or family member available to provide support and reinforce good behavior is very helpful. The support person needs to understand your goals.
- Learn to avoid temptations – When possible, avoid situations in which your ability to stick to healthy eating may be threatened. Not all situations are avoidable, so in addition, learning to be strong when tempted by food is an important part of your weight loss plan. As an example, you will need to learn how to say "no" and continue to say no when urged to eat at parties and social gatherings. Develop strategies for events before you go, such as eating before you go or taking low-calorie snacks and calorie-free drinks with you.

- Develop a support system – Having a support system is helpful when losing weight. This is why many commercial groups (ie, programs for which you pay to be a member) are successful. Family support is also essential; if your family does not support your efforts to lose weight, this can slow your progress or even keep you from losing weight.
- Positive thinking – People often have conversations with themselves in their head; these conversations can be positive or negative. If you eat a piece of cake that was not planned, you may respond by thinking, "Well, it's all over now, you've blown your diet!" and as a result, you may eat more cake.

A positive thought for the same event could be, "Well, I ate cake when it was not on my plan. Now I should do something to get back on track." A positive approach is much more likely to be successful than a negative one.

- Reduce stress – Although stress is a part of everyday life, it can trigger unhealthy eating habits in some people. It is important to find a way to get through these difficult times without eating or by choosing low-calorie food instead, like raw vegetables. It may be helpful to imagine a relaxing place that allows you to temporarily escape from stress. With deep breaths and closed eyes, you can imagine this relaxing place for a few minutes.
- Weight loss programs – Organized programs like Weight Watchers, Overeaters Anonymous, and Take Off Pounds Sensibly (TOPS) work for some people. As with all weight loss programs, you are most likely to be successful with these plans if you make long-term changes in how you eat.

CHOOSING A DIET OR NEW EATING PLAN

A calorie is a unit of energy found in food. Your body needs calories to function. The goal of any diet is to burn up more calories than you eat.

How quickly you lose weight on a given calorie intake depends upon several factors, such as your age, gender, and starting weight. In general:

- Older people have a slower metabolism than young people, so it takes longer for them to lose weight.
- Men lose more weight than women of similar height and weight when dieting. This is because they have more muscle mass, which uses more energy.

- People who are extremely overweight lose weight more quickly than those who are only mildly overweight.

How many calories do I need? — The number of calories you need per day depends on your current (or target) weight, gender, and activity level. Your health care professional can help you figure out this number and how to modify your diet accordingly.

In general, it is best to choose foods that contain enough protein, carbohydrates, essential fatty acids, and vitamins.

Try to avoid alcohol, sugar-sweetened beverages (sodas and fruit drinks), and sweets (candy, cakes, cookies), since they have calories but generally lack important nutrients.

General information about diet and your health is available in a separate article. (See "[Patient education: Diet and health \(Beyond the Basics\)](#)".)

Portion-controlled diets — One simple way to diet is to buy pre-packaged foods, like frozen low-calorie meals or meal-replacement canned drinks or bars. A typical meal plan for one day may include:

- A meal-replacement drink or breakfast bar for breakfast
- A meal-replacement drink or a frozen low-calorie (250 to 350 calories) meal for lunch
- A frozen low-calorie meal or other prepackaged, calorie-controlled meal, along with extra vegetables for dinner

This would give you 1000 to 1500 calories per day.

Low-fat diet — To reduce the amount of fat in your diet, you can:

- Eat low-fat foods. You can look at the nutrition label to see how much fat is each serving of a food ([figure 1](#)).
- Count fat grams. For a 1500-calorie diet, this would mean about 45 g or fewer of fat per day.

If you try a low-fat diet, you should increase the amount of healthy carbohydrates in your diet (eg, whole grains, fruits, and vegetables).

Low-carbohydrate diet — Low- and very-low-carbohydrate diets (eg, Atkins diet, South Beach diet, or "ketogenic" diet) are effective for weight loss and have become popular ways to lose weight quickly.

- With a low-carbohydrate diet, you eat between 60 and 130 grams of carbohydrates per day.
- With a very-low-carbohydrate diet, you eat between 0 and 60 grams of carbohydrates per day (a standard diet contains 200 to 300 grams of carbohydrates).

Carbohydrates are found in fruits, vegetables, grains (including breads, rice, pasta, and cereal), alcoholic beverages, and dairy products. Meat and fish contain very few carbohydrates. If you try a low-carbohydrate diet, it's important to make healthy choices for fat and protein (eg, fish, nuts, beans); eating a lot of saturated fats (found in butter and red meat) can increase your cholesterol level and raise your risk of heart disease.

Mediterranean diet — The term "Mediterranean diet" refers to a way of eating that is common in olive-growing regions around the Mediterranean Sea. Although there is some variation in Mediterranean diets, there are some similarities. Most Mediterranean diets include:

- A high level of monounsaturated fats (from olive or canola oil, walnuts, pecans, almonds) and a low level of saturated fats (from butter).
- A high amount of vegetables, fruits, legumes, and grains (7 to 10 servings of fruits and vegetables per day).
- A moderate amount of milk and dairy products, mostly in the form of cheese. Use low-fat dairy products (skim milk, fat-free yogurt, low-fat cheese).
- A relatively low amount of red meat and meat products. Substitute fish or poultry for red meat.
- For those who drink alcohol, a modest amount (mainly as red wine) may help to protect against cardiovascular disease. A modest amount is up to one (4 ounce) glass per day for women and up to two glasses per day for men.

Which diet is best? — Studies comparing different types of diets have not found a single "best" weight loss diet for all people. However, any diet will help you to lose weight if you are able to stick with it. Following a very restrictive diet may help you lose weight quickly, but it's easy to gain the weight back as soon as you stop following the diet. Therefore, it is important to choose a diet or meal plan that includes foods you like.

Fad diets — "Fad" diets often promise quick weight loss (more than 1 to 2 pounds per week) and may claim that you do not need to exercise or give up your favorite foods. Some fad diets cost a lot of money because you have to pay for seminars, pills, or packaged food. Fad diets

generally lack any scientific evidence that they are safe and effective, instead relying on "before" and "after" photos or testimonials.

Diets that sound too good to be true usually are. These plans are a waste of time and money and are not recommended. A health care professional can help you find a safe and effective way to lose weight and keep it off.

WEIGHT LOSS MEDICINES

Medication may be helpful for weight loss when used in combination with diet, exercise, and lifestyle changes. However, it is important to understand the risks, benefits, and limitations of these medicines. They can cause side effects that may be bothersome, and in many cases the long-term safety data are limited. In addition, these medicines may not be covered by insurance and can be expensive. Although weight loss medicines may not help you reach your "dream" weight, they can contribute to reducing your risk of diabetes or heart disease.

Weight loss medicines may be recommended for people who have not been able to lose weight with diet and exercise who have a:

- Body mass index (BMI) of 30 or more ([calculator 1](#) and [calculator 2](#))
- BMI between 27 and 29.9 and have other medical problems, such as diabetes, high cholesterol, or high blood pressure

Some of the available weight loss medications are discussed below. Your doctor can talk to you about the different medications and your options based on your situation, medical history, and preferences. If you try a medicine for weight loss and it does not work or you are bothered by side effects, your doctor may suggest trying a different medicine or combination of medicines.

Orlistat — [Orlistat](#) (brand name: Xenical) is a medicine that reduces the amount of fat your body absorbs from the foods you eat. A lower-dose version (brand name: Alli) is available without a prescription in many countries, including the United States. The recommended dose of the prescription version is one capsule three times per day, taken with a meal; you can skip a dose if you skip a meal or if the meal contains no fat.

After one year of treatment with [orlistat](#) combined with lifestyle changes, the average weight loss is approximately 8 to 10 percent of initial body weight. Cholesterol levels often improve and blood pressure sometimes falls. In people with diabetes, orlistat may help control blood sugar levels.

Side effects may include stomach cramps, gas, diarrhea, leakage of stool, or oily stools. These problems are more likely when you take [orlistat](#) with a high-fat meal (if more than 30 percent of calories in the meal are from fat). Side effects usually improve as you learn to avoid high-fat foods. Severe liver injury has been reported rarely in people taking orlistat, but it is not known if orlistat caused the liver problems.

Liraglutide — [Liraglutide](#) is a medication used to treat diabetes that can also be used for weight loss. People without diabetes taking the highest doses of liraglutide for approximately six months lost 7.4 percent of their initial body weight compared with 4.3 in people taking [orlistat](#). Side effects of liraglutide may include nausea, vomiting, diarrhea, low blood sugar, and loss of appetite. Serious but less common side effects include pancreatitis, gallbladder disease, renal impairment, and suicidal thoughts.

[Liraglutide](#) is injected under the skin in the abdomen, thigh, or upper arm once daily. It is started at a low dose then increased gradually. If after 16 weeks you have not lost at least 4 percent of your initial body weight, liraglutide should be discontinued, as it is unlikely to have significant effects after that point. Liraglutide should not be used in people with a personal or family history of medullary thyroid cancer or multiple endocrine neoplasia 2A or 2B.

Phentermine — [Phentermine](#) (brand names: Adipex-P, Lomaira) is a medicine that reduces food intake by causing you to feel full more quickly after eating. Phentermine is classified as a controlled substance by the United States (US) Food and Drug Administration due to its potential for abuse, although the actual observed rate of abuse is extremely low; it is the most widely prescribed single agent weight loss drug in the US.

In trials ranging from 12 to 36 weeks, patients taking [phentermine](#) lost an average of approximately 15 to 17 pounds (7 to 8 kg). Phentermine may cause an increase in blood pressure and heart rate; your health care provider will monitor you for these side effects while you are taking the medication. In addition, phentermine may cause insomnia, dry mouth, constipation and nervousness. You should not take phentermine if you have heart disease, uncontrolled high blood pressure, hyperthyroidism, or a history of drug abuse.

[Phentermine](#) is taken once or twice daily, and is intended for short-term use (less than 12 weeks). If you do not lose at least 5 percent of your initial body weight after 12 weeks, you should stop the medication and talk with your health care provider about other options.

Phentermine-topiramate — [Phentermine](#) and extended-release [topiramate](#) are available in combination as a single capsule (brand name: Qsymia). Topiramate is used for the prevention of migraine headaches and to treat seizures in people with epilepsy. People taking topiramate for these indications lose weight, but the way this works is uncertain. People taking this

combination medication lose approximately 8 to 10 percent of their initial body weight after one year.

The dose of [phentermine-topiramate](#) is usually increased gradually, while weight loss is monitored. If you do not lose 5 percent of your initial body weight after 12 weeks on the highest dose, phentermine-topiramate should be discontinued gradually, as abrupt withdrawal of [topiramate](#) can cause seizures.

The most common side events are dry mouth, constipation, and a "pins and needles" sensation of the skin. There is also a risk of psychiatric (eg, depression, anxiety) and cognitive (eg, disturbance in attention) problems; this risk increases with larger doses of the medication. Although [phentermine-topiramate](#) improves blood pressure slightly, it is also associated with an increase in heart rate.

[Phentermine-topiramate](#) should not be used during pregnancy because of the risk of birth defects; women of childbearing age should take a pregnancy test before starting this medication (and monthly thereafter) to ensure that they are not pregnant. It should also not be used in people with cardiovascular disease (high blood pressure or coronary heart disease).

Bupropion-naltrexone — [Bupropion](#) is a medicine that is used to treat depression and to prevent weight gain in people who are trying to quit smoking. [Naltrexone](#) is a drug used to treat alcohol and drug dependence. People taking combination [bupropion-naltrexone](#) lost approximately 5 to 6 percent of their initial body weight after one year. Common side effects include nausea, headache, constipation, insomnia, vomiting, dizziness, and dry mouth. The dose of bupropion-naltrexone is increased gradually over four weeks. If you do not lose at least 5 percent of your initial body weight after 12 weeks, the medication should be discontinued because benefit is unlikely.

[Bupropion-naltrexone](#) should not be used in people with uncontrolled high blood pressure, a seizure disorder, or an eating disorder. It should also not be used by people who take (or have recently taken) certain other medications, including those containing [bupropion](#), chronic opioids (narcotics), or monamine oxidase inhibitors.

DIETARY SUPPLEMENTS NOT RECOMMENDED

Dietary supplements are widely used by people who are trying to lose weight. However, doctors do **not** recommend their use because some are unsafe, and other supplements have not been studied carefully and there is no proof that they are safe or effective.

You may have heard of some of the following dietary supplements, which are often advertised for weight loss. **None of these are recommended:**

- Ephedra, a compound related to [ephedrine](#), is no longer available in the United States due to safety concerns. Many nonprescription diet pills previously contained ephedra. Although some studies have shown that ephedra helps with weight loss, there can be serious side effects (psychiatric symptoms, palpitations, and stomach upset), including death.
- Two supplements from Brazil, Emagrece Sim (also known as the Brazilian diet pill) and Herbathin dietary supplement, have been shown to contain prescription drugs and should be avoided.
- Bitter orange (*Citrus aurantium*) can increase your heart rate and blood pressure and is not recommended.
- There are not enough data about safety and efficacy to recommend chitosan, chromium, green tea, *Hoodia gordonii*, hydroxycitric acid, or conjugated linoleic acid.
- Human chorionic gonadotropin (hCG) is a hormonal preparation, usually given by injection, that has been advertised as a weight loss aid when combined with a very-low-calorie diet. There have been several studies showing that hCG is no more effective than placebo; thus, it is not recommended.

WEIGHT LOSS PROCEDURES

Bariatric (stomach) surgery may be an option in certain situations, if a person is not able to lose weight with lifestyle changes and medications. There are different types of bariatric surgery. More detailed information on weight loss procedures is available separately. (See "[Patient education: Weight loss surgery and procedures \(Beyond the Basics\)](#)").

WHERE TO GET MORE INFORMATION

Your healthcare provider is the best source of information for questions and concerns related to your medical problem.

This article will be updated as needed on our website (www.uptodate.com/patients). Related topics for patients, as well as selected articles written for health care professionals, are also available. Some of the most relevant are listed below.

Patient level information — UpToDate offers two types of patient education materials.

The Basics — The Basics patient education pieces answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials.

[Patient education: Weight loss treatments \(The Basics\)](#)

[Patient education: Polycystic ovary syndrome \(The Basics\)](#)

[Patient education: Nonalcoholic fatty liver disease \(The Basics\)](#)

[Patient education: Diet and health \(The Basics\)](#)

[Patient education: Exercise \(The Basics\)](#)

[Patient education: Weight loss surgery \(The Basics\)](#)

[Patient education: My child is overweight \(The Basics\)](#)

[Patient education: Idiopathic intracranial hypertension \(pseudotumor cerebri\) \(The Basics\)](#)

[Patient education: Health risks of obesity \(The Basics\)](#)

Beyond the Basics — Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are best for patients who want in-depth information and are comfortable with some medical jargon.

[Patient education: Weight loss surgery and procedures \(Beyond the Basics\)](#)

[Patient education: Diet and health \(Beyond the Basics\)](#)

Professional level information — Professional level articles are designed to keep doctors and other health professionals up-to-date on the latest medical findings. These articles are thorough, long, and complex, and they contain multiple references to the research on which they are based. Professional level articles are best for people who are comfortable with a lot of medical terminology and who want to read the same materials their doctors are reading.

[Approach to the patient with unintentional weight loss](#)

[Obesity in adults: Behavioral therapy](#)

[Obesity in adults: Dietary therapy](#)

[Obesity in adults: Drug therapy](#)

[Obesity in adults: Overview of management](#)

[Obesity in adults: Role of physical activity and exercise](#)

[Bariatric operations for management of obesity: Indications and preoperative preparation](#)

The following organizations also provide reliable health information:

- National Library of Medicine

(www.nlm.nih.gov)

- National Institute of Diabetes and Digestive and Kidney Diseases

(www.niddk.nih.gov)

- Hormone Health Network

(www.hormone.org, available in English and Spanish)

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GRAPHICS

Nutrition label

Nutrition Facts	
about 35 servings per container	
Serving size	2 Tbsp. (32g)
Amount per serving	
Calories	180
% Daily Value*	
Total Fat 15g	19%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 120mg	5%
Total Carbohydrate 8g	3%
Dietary Fiber 2g	7%
Total Sugars 4g	
Includes 2g Added Sugars	4%
Protein 7g	7%
Vitamin D 0mcg 0% • Calcium 17mg 2%	
Iron 0.5mg 2% • Potassium 186mg 4%	
* The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

This is an example of a nutrition label.

Graphic 121135 Version 1.0

Contributor Disclosures

Leigh Perreault, MD Consultant/Advisory Boards: Novo Nordisk [Obesity]. Speaker's Bureau: Novo Nordisk [Obesity]. **F Xavier Pi-Sunyer, MD, MPH** Nothing to disclose **Lisa Kunins, MD** Nothing to disclose

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