

# Childhood obesity

Childhood obesity is a serious medical condition that affects children and adolescents. It's particularly troubling because the extra pounds often start children on the path to health problems that were once considered adult problems — diabetes, high blood pressure and high cholesterol. Childhood obesity can also lead to poor self-esteem and depression.

One of the best strategies to reduce childhood obesity is to improve the eating and exercise habits of your entire family. Treating and preventing childhood obesity helps protect your child's health now and in the future.

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## Symptoms

Not all children carrying extra pounds are overweight. Some children have larger than average body frames. And children normally carry different amounts of body fat at the various stages of development. So you might not know by how your child looks if weight is a health concern.

The body mass index (BMI), which provides a guideline of weight in relation to height, is the accepted measure of overweight and obesity. Your child's doctor can use growth charts, the BMI and, if necessary, other tests to help you figure out if your child's weight could pose health problems.

## When to see a doctor

If you're worried that your child is putting on too much weight, talk to his or her doctor. The doctor will consider your child's history of growth and development, your family's weight-for-height history, and where your child lands on the growth charts. This can help determine if your child's weight is in an unhealthy range.

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## Causes

Lifestyle issues — too little activity and too many calories from food and drinks — are the main contributors to childhood obesity. But genetic and hormonal factors might play a role as well.

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## Risk factors

Many factors — usually working in combination — increase your child's risk of becoming overweight:

- **Diet.** Regularly eating high-calorie foods, such as fast foods, baked goods and vending machine snacks, can cause your child to gain weight. Candy and desserts also can cause weight gain, and more and more evidence points to sugary drinks, including fruit juices and sports drinks, as culprits in obesity in some people.
  - **Lack of exercise.** Children who don't exercise much are more likely to gain weight because they don't burn as many calories. Too much time spent in sedentary activities, such as watching television or playing video games, also contributes to the problem. TV shows also often feature ads for unhealthy foods.
  - **Family factors.** If your child comes from a family of overweight people, he or she may be more likely to put on weight. This is especially true in an environment where high-calorie foods are always available and physical activity isn't encouraged.
  - **Psychological factors.** Personal, parental and family stress can increase a child's risk of obesity. Some children overeat to cope with problems or to deal with emotions, such as stress, or to fight boredom. Their parents might have similar tendencies.
  - **Socioeconomic factors.** People in some communities have limited resources and limited access to supermarkets. As a result, they might buy convenience foods that don't spoil quickly, such as frozen meals, crackers and cookies. Also, people who live in lower income neighborhoods might not have access to a safe place to exercise.
  - **Certain medications.** Some prescription drugs can increase the risk of developing obesity. They include prednisone, lithium, amitriptyline, paroxetine (Paxil), gabapentin (Neurontin, Gralise, Horizant) and propranolol (Inderal, Hemangeol).
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## Complications

Childhood obesity often causes complications in a child's physical, social and emotional well-being.

### Physical complications

Physical complications of childhood obesity may include:

- **Type 2 diabetes.** This chronic condition affects the way your child's body uses sugar (glucose). Obesity and a sedentary lifestyle increase the risk of type 2 diabetes.
- **High cholesterol and high blood pressure.** A poor diet can cause your child to develop one or both of these conditions. These factors can contribute to the buildup of plaques in the arteries, which can cause arteries to narrow and harden, possibly leading to a heart attack or stroke later in life.
- **Joint pain.** Extra weight causes extra stress on hips and knees. Childhood obesity can cause pain and sometimes injuries in the hips, knees and back.
- **Breathing problems.** Asthma is more common in children who are overweight. These children are also more likely to develop obstructive sleep apnea, a potentially serious disorder in which a child's breathing repeatedly stops and starts during sleep.
- **Nonalcoholic fatty liver disease (NAFLD).** This disorder, which usually causes no symptoms, causes fatty deposits to build up in the liver. NAFLD can lead to scarring and liver damage.

## Social and emotional complications

Children who have obesity may experience teasing or bullying by their peers. This can result in a loss of self-esteem and an increased risk of depression and anxiety.

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## Prevention

To help prevent excess weight gain in your child, you can:

- **Set a good example.** Make healthy eating and regular physical activity a family affair. Everyone will benefit and no one will feel singled out.
- **Have healthy snacks available.** Options include air-popped popcorn without butter, fruits with low-fat yogurt, baby carrots with hummus, or whole-grain cereal with low-fat milk.
- **Offer new foods multiple times.** Don't be discouraged if your child doesn't immediately like a new food. It usually takes multiple exposures to a food to gain acceptance.
- **Choose nonfood rewards.** Promising candy for good behavior is a bad idea.
- **Be sure your child gets enough sleep.** Some studies indicate that too little sleep may increase the risk of obesity. Sleep deprivation can cause hormonal imbalances that lead to increased appetite.

Also, be sure your child sees the doctor for well-child checkups at least once a year. During this visit, the doctor measures your child's height and weight and calculates his or her BMI. A significant increase in your child's BMI percentile rank over one year may be a possible sign that your child is at risk of becoming overweight.

## Diagnosis

As part of regular well-child care, the doctor calculates your child's BMI and determines where it falls on the BMI-for-age growth chart. The BMI helps indicate if your child is overweight for his or her age and height.

Using the growth chart, your doctor determines your child's percentile, meaning how your child compares with other children of the same sex and age. For example, if your child is in the 80th percentile, it means that compared with other children of the same sex and age, 80% have a lower BMI.

Cutoff points on these growth charts, established by the Centers for Disease Control and Prevention, help classify the severity of a child's weight problem:

- BMI between 23 to 27 adult equivalent — overweight
- BMI 27 adult equivalent or above — obesity
- BMI 120 % -140% of 27 adult equivalent — Class 2 obesity
- BMI >140 % of 27 adult equivalent - class 3 obesity

Because BMI doesn't consider things such as being muscular or having a larger than average body frame and because growth patterns vary greatly among children, your doctor also factors in your child's growth and development. This helps determine whether your child's weight is a health concern.

In addition to BMI and charting weight on the growth charts, the doctor evaluates:

- Your family's history of obesity and weight-related health problems, such as diabetes
- Your child's eating habits
- Your child's activity level
- Other health conditions your child has
- Psychosocial history, including incidences of depression, sleep disturbances, and sadness and whether your child feels isolated or alone or is the target of bullying

## Blood tests

Your child's doctor might order blood tests that may include:

- A lipid profile test
- A blood sugar test
- Other blood tests to check for hormone imbalances or other conditions associated with obesity

Some of these tests require that your child not eat or drink anything before the test. Ask if your child needs to fast before a blood test and for how long.

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## **Treatment**

Treatment for childhood obesity is based on your child's age and whether he or she has other medical conditions. Treatment usually includes changes in your child's eating habits and physical activity level. In certain circumstances, treatment might include medications or weight-loss surgery.

### **Treatment for children with overweight**

The American Academy of Pediatrics recommends that children older than 2 whose weight falls in the overweight category be put on a weight-maintenance program to slow the progress of weight gain. This strategy allows the child to add inches in height but not pounds, causing the BMI to drop over time into a healthier range.

### **Treatment for children with obesity**

Children ages 6 to 11 whose weight falls into the obesity category might be encouraged to modify their eating habits for gradual weight loss of no more than 1 pound (or about 0.5 kilogram) a month. Older children and adolescents who have obesity or severe obesity might be encouraged to modify their eating habits to aim for weight loss of up to 2 pounds (or about 1 kilogram) a week.

The methods for maintaining your child's current weight or losing weight are the same: Your child needs to eat a healthy diet — both in terms of type and amount of food — and increase physical activity. Success depends largely on your commitment to helping your child make these changes.

### **Healthy eating**

Parents are the ones who buy groceries, cook meals and decide where the food is eaten. Even small changes can make a big difference in your child's health.

- **Prioritize fruits and vegetables.** When food shopping, cut back on convenience foods — such as cookies, crackers and prepared meals — which are often high in sugar, fat and calories.
- **Limit sweetened beverages.** This includes beverages that contain fruit juice. These drinks provide little nutritional value in exchange for their high calories. They can also make your child feel too full to eat healthier foods.
- **Avoid fast food.** Most of the menu options are high in fat and calories.
- **Sit down together for family meals.** Make it an event — a time to share news and tell stories. Discourage eating in front of a TV, computer or video game screen, which can lead to fast eating and lowered awareness of the amount eaten.
- **Serve appropriate portion sizes.** Children don't need as much food as adults do. Start with a small portion and your child can ask for more if they're still hungry. Allow your child to eat only until full, even if that means leaving food on the plate. And remember, when you eat out, restaurant portion sizes are often way too large.

## Physical activity

A critical part of achieving and maintaining a healthy weight, especially for children, is physical activity. It burns calories, strengthens bones and muscles, and helps children sleep well at night and stay alert during the day.

Good habits established in childhood help adolescents maintain healthy weights. And active children are more likely to become fit adults.

To increase your child's activity level:

- **Limit TV time.** Recreational screen time — in front of a TV, computer, tablet or smart phone — should be limited to no more than two hours a day for children older than 2. Children younger than 2 should have no screen time at all.
- **Emphasize activity, not exercise.** Children should be moderately to vigorously active for at least an hour a day. Your child's activity doesn't have to be a structured exercise program — the object is to get him or her moving. Free-play activities — such as playing hide-and-seek, tag or jump-rope — can be great for burning calories and improving fitness.
- **Find activities your child likes.** For instance, if your child is artistically inclined, go on a nature hike to collect leaves and rocks that your child can use to make a collage. If your child likes to climb, head for the nearest neighborhood jungle gym or climbing wall. If your child likes to read, then walk or bike to the neighborhood library for a book.

## **Medications**

Medication might be prescribed for some children and adolescents as part of an overall weight-loss plan.