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## Fight obesity healthy weight-healthy lives

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### Abstract

Globally, there are more than 1 billion overweight adults, at least 300 million of them obese. Obesity and overweight pose a major risk for chronic diseases, including type 2 diabetes, cardiovascular disease, hypertension and stroke, and certain forms of cancer. The key causes are increased consumption of energy-dense foods high in saturated fats and high sugar and reduced physical activity. A critical part of achieving and maintaining a healthy weight, especially for children, is physical activity. It not only burns calories but also builds strong 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 weight despite the hormonal changes, rapid growth and social influences that often lead to overeating. And active children are more likely to become fit adults. Nurses can and should participate in health promotion and education (Sheehan and Yin, 2006) for the prevention of obesity

**Keywords:** Overweight, obesity, health promotion, physical activity, child hood adolescents, healthy weight

### Introduction

Childhood obesity is a serious medical condition that affects children and adolescents. It occurs when a child is well above the normal weight for his or her age and height. Childhood obesity is particularly troubling because the extra pounds often start children on the path to health problems that were once confined to adults, such as 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 diet and exercise habits of your entire family. Treating and preventing childhood obesity helps protect the health of the child now and in the future.

### Risk Factors

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

Though not common, there are also genetic diseases and hormonal disorders that can make a child prone to obesity.

- **Diet:** Regularly eating high-calorie foods, such as fast foods, baked goods and vending machine snacks, can easily cause your child to gain weight. Soft drinks, candy and desserts also can cause weight gain.
- **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 contribute to the problem.
- **Family factors:** A 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:** Some children overeat to cope with problems or to deal with emotions, such as stress, or to fight boredom. Their parents may have similar tendencies.
- **Socioeconomic factors:** People in some communities have limited resources and little access to supermarkets. As a result, they may opt for convenience foods that don't spoil quickly, such as frozen meals, crackers and cookies. In addition, people who live in lower income neighbourhoods may not have access to safe places to exercise.

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## Consequences

### Physical complications

- **Type 2 diabetes:** Type 2 diabetes is a chronic condition that affects the way your child's body uses sugar (glucose). Obesity and a sedentary lifestyle increase the risk of type 2 diabetes.
- **Metabolic syndrome:** Metabolic syndrome isn't a disease itself, but a cluster of conditions that can put your child at risk of developing heart disease, diabetes or other health problems. This cluster of conditions includes high blood pressure, high blood sugar, high triglycerides, low HDL ("good") cholesterol and excess abdominal fat.
- **High cholesterol and high blood pressure:** Your child can develop high blood pressure or high cholesterol if he or she eats a poor diet. These factors can contribute to the buildup of plaques in the arteries. These plaques can cause arteries to narrow and harden, which can lead to a heart attack or stroke later in life.
- **Asthma:** Children who are overweight or obese may be more likely to have asthma.
- **Sleep disorders:** Obstructive sleep apnea is a potentially serious disorder in which a child's breathing repeatedly stops and starts when he or she sleeps. It can be a complication of childhood obesity.
- **Non-alcoholic 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.
- **Early puberty or menstruation:** Being obese can create hormone imbalances that may cause puberty to start earlier than expected.

### Social and emotional complications

- **Low self-esteem and bullying:** Children often tease or bully their overweight peers, who suffer a loss of self-esteem and an increased risk of depression as a result.
- **Behavior and learning problems:** Overweight children tend to have more anxiety and poorer social skills than normal-weight children have. At one extreme, these problems may lead overweight children to act out and disrupt their classrooms. At the other, they may cause overweight children to socially withdraw.
- **Depression:** Low self-esteem can create overwhelming feelings of hopelessness in some overweight children. When children lose hope that their lives will improve, they may become depressed. A depressed child may lose interest in normal activities, sleep more than usual or cry a lot. Some depressed children hide their sadness and appear emotionally flat instead. Either way, depression is as serious in children as in adults.

### Tests and Diagnosis

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

Using the growth chart, the doctor determine child's percentile, meaning how your child compares with other children of the same sex and age. This means that compared with other children of the same sex and age, 80 percent have a lower weight or BMI.

Cut off points on these growth charts, established by the Centers for Disease Control and Prevention, help identify overweight and obese children:

- BMI-for-age between 85th and 94th percentiles — overweight
- BMI-for-age 95th percentile or above — obesity

Because BMI doesn't consider things like being muscular or having a larger than average body frame and because growth patterns vary greatly among children, your doctor also factors your child's growth and development into consideration. 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 also evaluates:

- family's history of obesity and weight-related health problems, such as diabetes
- child's eating habits
- child's activity level
- Other health conditions the child may have

### Blood tests

- A cholesterol test
- A blood sugar test
- Other blood tests to check for hormone imbalances

### Treatments and Drugs

Treatment for childhood obesity is based on child's age and if he or she has other medical conditions. Treatment usually includes changes in child's diet and level of physical activity. In certain circumstances, treatment may include medications or weight-loss surgery. Children ages 6-11 who are obese may be put on a diet for gradual weight loss of no more than 1 pound (or about 0.5 kilogram) a month. Older children and adolescents who are obese or severely obese may be put on a diet that aims for weight loss of up to 2 pounds (or about 1 kilogram) a week.

### Medications

In some situations, medication may be prescribed for adolescents as part of an overall weight loss plan. Orlistat (Xenical) prevents the absorption of fat in the intestines. The risks of taking a prescription medication over the long term are unknown, and the medication's effect on weight loss and weight maintenance for adolescents is still questioned.

### Weight-loss surgery

Weight-loss surgery may be an option for severely obese adolescents who have been unable to lose weight using conventional weight-loss methods. However, as with any type of surgery, there are potential risks and long-term complications. Also, the long-term effects of weight-loss surgery on future growth and development are largely unknown.

Weight-loss surgery in adolescents is uncommon. But the doctor may recommend this surgery if your child's weight poses a greater health threat than do the potential risks of surgery. It's important that a child being considered for weight-loss surgery meet with a team of paediatric specialists, including a paediatric endocrinologist.

Weight-loss surgery isn't a miracle cure. It doesn't guarantee that an adolescent will lose all of their excess weight or that they'll be able to keep it off long term. It's also important to

keep in mind that surgery doesn't replace the need for following a healthy diet and getting regular physical activity

**The methods for maintaining your child's current weight or losing weight are the same:**

The child needs to eat a healthy diet — both in terms of type and amount of food — and increase his or her physical activity. Success depends largely on your commitment to helping your child make these changes.

**Preventive Measures**

**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 child's health.

- **When food shopping, choose fruits and vegetables:** Cut back on convenience foods — such as cookies, crackers and prepared meals — which are often high in sugar, fat and calories. Always have healthy snacks available.
- **Limit sweetened beverages:** This includes those that contain fruit juice. These drinks provide little nutritional value in exchange for their high calories. They also can make child feel too full to eat healthier foods.
- **Limit fast food:** Many 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 screen — such as a TV, computer or video game — which can lead to fast eating and lowered awareness of how much eating.
- **Serve appropriate portion sizes:** Children don't need as much food as adults do. Allow the child to eat until he or she is full, even if that means leaving food on the plate. And remember, when you eat out, those portion sizes are often significantly oversized.

**Diet and obesity**

Dietary factors associated with the development of obesity are complex and still not fully understood (Nicklas *et al*, 2001).

- Research has implicated various nutrients (including fat, protein, carbohydrates), foods such as soft drinks and fast foods, and dietary behaviour, such as frequency of eating and meal size (Nicklas *et al*, 2001).
- Emphasis should be placed on achieving and maintaining a healthy body weight in children as well as adults (Hecker, 1999).
- This can be done by following a diet based on the avoidance of high-energy foods, as recommended for the prevention of cancer and coronary heart disease, together with carrying out sufficient physical activity (Williams *et al*, 2002)

**Physical activity**

A critical part of achieving and maintaining a healthy weight, especially for children, is physical activity. It not only burns calories but also builds strong 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 weight despite the hormonal changes, rapid

growth and social influences that often lead to overeating. And active children are more likely to become fit adults.

To increase child's activity level:

- **Limit TV and recreational computer time to no more than 2 hours a day:** A good way to increase child's activity levels is to limit the number of hours he or she is allowed to watch TV each day. Other sedentary activities — playing video and computer games or talking on the phone — also should be limited.
- **Emphasize activity, not exercise:** Children should be moderately to vigorously active for at least an hour a day. The child's activity doesn't have to be a structured exercise program — the object is just 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 the child likes to do:** 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 the child likes to climb, head for the nearest neighbourhood jungle gym or climbing wall. If the child likes to read, then walk or bike to the neighbourhood library for a book.

**Lifestyle and home remedies**

**Be a role model:** Choose healthy foods and active pastimes for yourself. If you need to lose weight, doing so will motivate your child to do likewise. Children are good learners and they often mimic what they see.

**Involve the whole family:** Make healthy eating a priority and emphasize how important it is for the whole family to be physically active. This avoids singling out the child who is overweight.

**Coping and support**

Parents play a crucial role in helping children who are obese feel loved and in control of their weight. Take advantage of every opportunity to build the child's self-esteem. Don't be afraid to bring up the topic of health and fitness but do be sensitive that a child may view your concern as an insult. Talk to kids directly, openly, and without being critical or judgmental.

- **Be sensitive to child's needs and feelings:** Becoming active is an important lifestyle change for child to make, but the child is more likely to stick to those changes if let him or her choose what physical activities he or she is comfortable with.
- **Find reasons to praise your child's efforts:** Celebrate small, incremental changes but don't reward with food. Choose other ways to mark the child's accomplishments, such as going to the bowling alley or a local park.
- **Talk to the child about his or her feelings:** Help the child find ways to deal with his or her emotions that don't involve eating.
- **Help the child focus on positive goals:** For example, point out that he or she can now bike for more than 20 minutes without getting tired or can run the required number of laps in gym class.
- **Be patient:** Many overweight children grow into their extra pounds as they get taller. Realize, too, that an intense focus on your child's eating habits and weight

can easily backfire, leading a child to overeat even more or possibly making him or her more prone to developing an eating disorder.

### **Nurses and health promotion**

Nurses can promote healthy lifestyle patterns that reduce the risks of being overweight or obese. For example, breastfeeding, physical activity, regular meals, and nutrition and

- Advocating for the promotion of increased physical activity at governmental level
- Supporting efforts to preserve and enhance parks, to develop walking and bicycle paths, and to promote the use of physical activity opportunities by families.
- Engaging families with parental obesity in prevention activities
- Encouraging parenting styles that support increased physical activity and reduce sedentary behaviours
- Encouraging parental modelling of healthy dietary choices.

Whether the child is at risk of becoming overweight or currently at a healthy weight, take proactive measures to get or keep things on the right track. Here are some key points to remember:

- Limit child's consumption of sugar-sweetened beverages
- Provide plenty of fruits and vegetables
- Eat meals together as a family as often as possible
- Limit eating out, especially at fast food restaurants
- Adjust portion sizes appropriately for age
- Limit TV and other "screen time" to less than 2 hours a day

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

Prevention, early detection and the appropriate treatment of obesity are of great importance in nursing practice in all settings and should not be undervalued. Nurses can and should participate in health promotion and education (Sheehan and Yin, 2006) for the prevention of obesity. Nurses can promote appropriate nutrition advice not only to the general public, but most importantly to policy-makers.

### **Conclusion**

Dietary factors that relate to obesity are complex and still not fully understood. Contrary to the common perception, fat intake per se does not influence total energy intake – over consumption of calories is the most important factor. Increased portions, irregular meals and soft drinks are positively associated with high energy consumption. Preventive programmes should emphasize adherence to prudent dietary patterns rather than to intake of specific nutrients. Nurses constitute a political force in health policy, because they are situated in a wide range of settings (Sheehan and Yin, 2006). Thus, nurses are on the frontline of obesity prevention and health promotion.

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