

## Childhood Obesity

### What is childhood obesity?

Childhood obesity is a serious medical condition that affects children and adolescents. It occurs when a child is well above the normal weight for the child's age and height.

### How common is it?

In the past 30 years, the occurrence of obesity in children has tripled, and it is now estimated that almost 1 in 5 children in the United States has obesity (17%).

### What are the consequences of childhood obesity?

- Negative health consequences include
  - Insulin resistance and type 2 diabetes mellitus
  - Asthma
  - High blood pressure or hypertension
  - High lipid levels, including total and low-density lipoprotein cholesterol levels and triglyceride levels in the blood
  - Fatty liver disease
  - Gastroesophageal reflux (from the stomach to the esophagus)
  - Constipation
  - Sleep apnea
  - Early puberty
- Potential negative psychological outcomes include
  - Depressive symptoms
  - Poor body image and increased risk for an eating disorder
  - Behavioral and learning problems
  - More likely to have obesity as adults

### What are the contributors to childhood obesity?

- **Food choices:** Diets higher in calories (high sugar and processed foods) and lower in fruits and vegetables are linked with obesity.
- **Physical activity vs sedentary activity:** Less physical activity and more time spent participating in sedentary activities in front of screens such as computers and televisions both result in less energy expenditure.
- **Parental obesity:** Children of parents with obesity are more likely to develop obesity over their lifetimes.
- **Formula feeding:** Breastfeeding is generally recommended over formula feeding. Breastfeeding in the first year after birth may prevent excess weight gain later in childhood.

- **Poverty and poor access to healthy food:** Families living in poverty often cannot afford or obtain fruits and vegetables, and they live on inexpensive fast or processed food.
- **Insufficient sleep or poor sleep quality.**

### Who might be on the treatment team?

Prevention of childhood obesity is the best strategy. Regular meals, diets rich in fruits and vegetables, play, and exercise are all part of the prevention strategy. Children who have overweight or obesity may be working with their pediatricians/primary care providers in the medical home and a dietician; often, they are not in treatment. Child care programs and schools are important environments for developing and sustaining healthy eating and exercise habits.

### What are 5-2-1-0 and healthy eating and activity?

- 5-2-1-0 is a “prescription” for
  - 5 fruits and vegetables per day
  - 2 hours or less of screen time per day (with no screen time for children younger than 2 years [ie, 24 months])
  - 1 hour of active play per day
  - 0 sugar-sweetened drinks
- Fruits and vegetables should be readily available for snacks.
- Use small portions; that is, child portions are usually small compared with adult portions. Allow the child to ask for more healthy food if needed.
- Use low-fat or nonfat dairy products for milk, yogurt, and ice cream.
- No fruit juice for children younger than 1 year (ie, 12 months) of age, no more than 4 oz for children 1 to 3 years (ie, 12 months–36 months) of age, no more than 4 to 6 oz for children 4 to 6 years of age, and no more than 8 oz per day for children and adolescents 7 to 18 years of age.
- Allow lots of time for active play. Support participation in sports and other physical activities. Provide environments that support play indoors and outdoors.
- Be a role model through actions such as drinking water, eating healthy snacks, and taking movement breaks.

## Childhood Obesity *(continued)*

### What are some resources?

- American Academy of Pediatrics: [www.aap.org](http://www.aap.org),  
<https://shop.aap.org>, 1-866-843-2271
  - *Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs*, 3rd Edition (book),  
<http://cfoc.nrckids.org/CFOC>
    - Standard 3.1.3.1, Active Opportunities for Physical Activity
    - Standard 4.2.0.7, 100% Fruit Juice
  - Institute for Healthy Childhood Weight (Web site),  
<https://aap.org/healthyweight>
  - Pediatric ePractice: Optimizing Your Obesity Care (Web site), <https://pep.aap.org>
- National Association for the Education of Young Children: [www.naeyc.org](http://www.naeyc.org)

