

Childhood Obesity in the United States: Facts and Figures

U.S. Prevalence

Over the past three decades, the childhood obesity rate has more than doubled for preschool children aged 2-5 years and adolescents aged 12-19 years, and it has more than tripled for children aged 6-11 years. At present, approximately nine million children over 6 years of age are considered obese.

Causes of Childhood Obesity

The rise in childhood obesity is due to complex interactions across a number of relevant social, environmental, and policy contexts that influence eating and physical activity. Over decades, these have collectively created an adverse environment for maintaining a healthy weight. This environment is characterized by:

- urban and suburban designs that discourage walking and other physical activities;
- pressures on families to minimize food costs, acquisition and preparation time, resulting in frequent consumption of convenience foods that are high in calories and fat;
- reduced access and affordability in some communities to fruits, vegetables, and other nutritious foods;
- decreased opportunities for physical activity at school, after school, and reduced walking or biking to and from school; and
- competition for leisure time that was once spent playing outdoors with sedentary screen time including watching television or playing computer and video games.

DEFINING CHILDHOOD OBESITY

In this report, the term obesity is used to refer to children and youth between the ages of 2 and 18 years who have body mass indexes (BMIs) equal to or greater than the 95th percentile of the age- and gender-specific BMI charts developed by the Centers for Disease Control and Prevention (CDC).

Obesity Trends

Trends in childhood and youth obesity mirror a similar profound increase over the same approximate period in U.S. adults as well as a concurrent rise internationally, in both developed and developing countries. The obesity epidemic affects both boys and girls and has occurred in

all age, race, and ethnic groups throughout the United States. In addition to the increase in obesity prevalence, the heaviest group of children is getting heavier whereas the leanest group of children is staying lean. What this means is that among younger age groups of children 6 to 11 years of age, and to a lesser extent adolescents, the lower part of the BMI distribution appears to have changed little over time. For example, if 100 children were lined up from

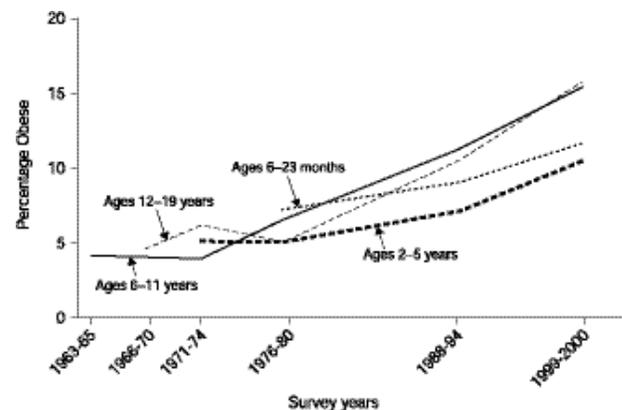


Figure 1. Age-Specific Trends in Child and Adolescent Obesity
NOTE: Obesity is defined as a BMI at or above the age- and gender-specific 95th percentile cutoff points from the 2000 CDC BMI Charts. Weight-for-length is used to track children aged 6 to 23 months (under 2 years of age). Estimates for certain data points are considered unreliable and data upon which this figure is based may have a standard point of error of 20 to 30 percent.
SOURCES: Ogden, et al., 2002a; CDC, 2003.

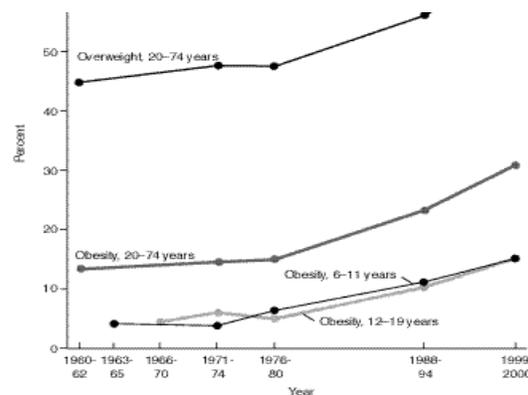


Figure 2. Overweight and Obesity by Age in the United States, 1960-2000
SOURCE: CDC, 2003.
NOTES: Percents for adults are age-adjusted. Obesity for children is defined as a BMI at or above the age- and gender-specific 95th percentile cutpoints from the 2000 CDC BMI Charts. Overweight for adults is defined as a BMI greater than or equal to 30. Obesity is a subset of the percent of overweight.

the lightest to the heaviest based on their BMI levels from the 1970s, and another line of children were lined up based on their BMIs from the 1990s, approximately the first 25 children in each line would have the same BMI. However, the last 10 (the heaviest) children in the 1990s would be much heavier than his or her counterpart in the 1970s. In adults, the prevalence of overweight and obesity has increased, meaning that more adults have become overweight or obese and they have become heavier which has shifted the adult BMI curve to the right.

Immediate Risks of Obesity to a Child's Health

Young people are at risk of developing serious psychosocial burdens related to being obese in a society that stigmatizes this condition, often fostering shame, self-blame, and low self-esteem that may impair academic and social functioning and carry into adulthood. In a population-based sample, approximately 60 percent of obese children aged 5 to 10 years had at least one cardiovascular disease (CVD) risk factor—such as elevated total cholesterol, triglycerides, insulin, or blood pressure—and 25 percent had two or more risk CVD risk factors.

Physical, Social, and Emotional Health Consequences of Obesity in Children and Youth

Physical Health

- Glucose intolerance and insulin resistance
- Type 2 diabetes
- Hypertension
- Dyslipidemia
- Hepatic steatosis
- Cholelithiasis
- Sleep apnea
- Menstrual abnormalities
- Impaired balance
- Orthopedic problems

Emotional Health

- Low self-esteem
- Negative body image
- Depression

Social Health

- Stigma
 - Negative stereotyping
 - Discrimination
 - Teasing and bullying
 - Social marginalization
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Long-Term Risks of Obesity to a Child's Health

For children born in the United States in 2000, the lifetime risk of being diagnosed with type 2 diabetes at some point in their lives is estimated to be 30 percent for boys and 40 percent for girls, and the lifetime risk for developing type 2 diabetes is even higher among ethnic minority groups at birth and at all ages. Type 2 diabetes is rapidly becoming a disease of children and adolescents. In case reports limited to the 1990s, type 2 diabetes accounted for 8 to 45 percent of all new pediatric cases of diabetes—in contrast with fewer than 4 percent before the 1990s. The obesity epidem-

ic may reduce overall adult life expectancy because it increases lifetime risk for type 2 diabetes and other serious chronic disease conditions, thereby potentially reversing the improved life expectancy trend achieved with the reduction of infectious diseases over the past century. Obesity can also lead to metabolic syndrome, arthritis, cancer, and CVD.

Impact of Family History

Genetics is a factor in excess weight but it is not the explanation for the recent epidemic of obesity. While having obese parents more than doubles a child's risk of being obese, genetic characteristics of human populations have not changed in the last two decades, while the prevalence of obesity has approximately doubled.

High-Risk Populations

There is evidence that certain ethnic minority populations, children in low socioeconomic status families, and children in the country's southern region tend to have higher rates of obesity than the rest of the population. Although it should be noted that is difficult to separate out racial and ethnic influences from socioeconomic factors that increase obesity risk. The current increase is especially evident among African-American, Hispanic and American Indian adolescents. With both sexes combined, up to 24 percent of African-American and Hispanic children are above the 95th percentile. Among boys, the highest prevalence of obesity is observed in Hispanics and among girls, the highest prevalence is observed in African-Americans.

Eating Less vs. Moving More

Based on intake and physical activity data, the increase in the number of obese children is likely the result of a combination of children and youth eating more calories than they are using through daily physical activity. Weight gain results when energy expenditure is consistently exceeded by energy intake over time. Achieving energy balance is important for children so that energy intake is equal to energy expenditure while supporting normal growth and development without promoting excessive weight gain. Therefore both are important components in reversing the obesity trend. More research is needed regarding their relative contributions to weight gain and obesity prevention.

Preventing Childhood Obesity: A National Priority

Few studies testing potential solutions within diverse and complex social and environmental contexts. However, the health concerns are immediate and warrant urgent preventive actions. What this report illustrates is that preventing childhood obesity is a collective responsibility requiring individual, family, community, corporate, and governmental commitments. The key will be to implement changes for this issue from many directions and at multiple levels, and through collaboration with and between many sectors.