



## Overweight Among U.S. Children and Adolescents

Continuing increases in overweight among children and adolescents are of public health concern. Older children who are overweight are at greater risk of becoming overweight or obese adults. This is of concern because the risk for adverse health outcomes increases with overweight and obesity in adulthood. In adults, overweight and obesity are associated with increased risk for heart disease, diabetes, high blood pressure and stroke, high blood cholesterol, certain types of cancer, arthritis, and breathing problems.

Overweight prevention should focus on improving the balance between caloric intake and energy expenditure. The *Dietary Guidelines for Americans* recommend that children and adolescents 2 years of age and older choose a healthful assortment of foods that includes vegetables; fruits; grains (especially whole grains); fat-free or low-fat milk products; and fish, lean meat, poultry, or beans. The guidelines also recommend that children get at least 60 minutes of physical activity daily and limit inactive forms of play such as television watching and computer games.

### Defining overweight in children and adolescents

Measurements of height and weight help to assess the overall health and nutritional status of children and adolescents. To identify children and youth who are overweight, measures of height and weight are combined in the body mass index (BMI). BMI is calculated as weight in kilograms divided by the square of height in meters. BMI is now the recommended tool to screen for overweight in children.

The 2000 CDC growth charts show BMI-for-age. These charts can be used to identify children and adolescents with expected growth patterns and those who may require further evaluation. However, growth charts are only a first level screening tool. Further clinical assessment by a health care

provider should be done when values fall outside the expected range.

Using age- and sex-specific reference data from the 2000 CDC BMI-for-age growth charts, children and youth can be categorized as acceptable, underweight, at risk of overweight, or overweight. At age- and sex-specific BMI values below the 5th percentile, children may be underweight. From the 5th up to the 85th percentile, they have an acceptable weight. From the 85th to 95th percentile, they are at risk of being overweight. At the 95th percentile and above, children and adolescents are classified as overweight.

### National data on overweight among children and adolescents

The most accurate national data on overweight come from heights and weights measured as part of the National Health and Nutrition Examination Survey (NHANES) and previous health examination surveys. These surveys show the current prevalence of overweight and trends in overweight over time.

### Prevalence of overweight

The prevalence of overweight by age, sex, and race-ethnic group is shown in [table 1](#), based on data from NHANES III (1988–94). Within every age and sex group about 10 percent of children and adolescents were overweight. There were some race-ethnic differences in the percentages of overweight boys and girls ([table 1](#)). Among boys, the highest percentage of overweight occurred among Mexican Americans. Among girls, the highest percentage of overweight occurred among non-Hispanic blacks followed by Mexican Americans. The lowest percentage of overweight occurred among non-Hispanic white girls.

## Trends from the 1960s to the 1990s

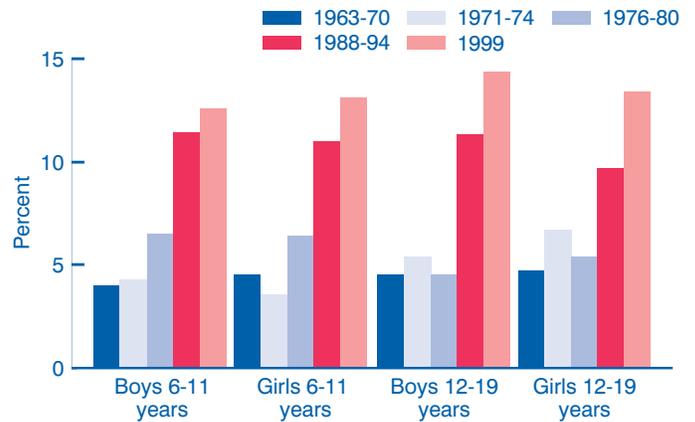
The percentage of overweight children and adolescents increased over three decades from the 1960s to the 1990s (figure 1). As shown in the figure:

- The percentage of overweight children (6–11 years of age) increased from 4 percent in 1965 to 13 percent in 1999.
- The percentage of overweight adolescents (12–19 years of age) increased from 5 percent in 1970 to 14 percent in 1999.
- The increase was similar among boys and girls.

**Table 1. Percentage of overweight children and adolescents by sex and race-ethnic group, United States, 1988–94**

Sex and race-ethnic group	6–11 years	12–19 years
<b>Boys</b>		
Total . . . . .	11.8	11.3
Non-Hispanic white . . . . .	10.9	11.6
Non-Hispanic black . . . . .	12.3	10.7
Mexican American . . . . .	17.7	14.1
<b>Girls</b>		
Total . . . . .	11.0	9.7
Non-Hispanic white . . . . .	9.8	8.9
Non-Hispanic black . . . . .	17.1	16.3
Mexican American . . . . .	15.3	13.5

**Figure 1. Trends in overweight (BMI ≥ 95th percentile): United States**



SOURCE: CDC/NCHS; NHES II/III (1963-70), NHANES I (1971-74), NHANES II (1976-80), NHANES III (1988-94), NHANES 1999

For more information about NHANES, please visit the NHANES Web site: <http://www.cdc.gov/nchs/nhanes.htm>. To learn more about the CDC growth charts, visit the Web site: <http://www.cdc.gov/growthcharts>