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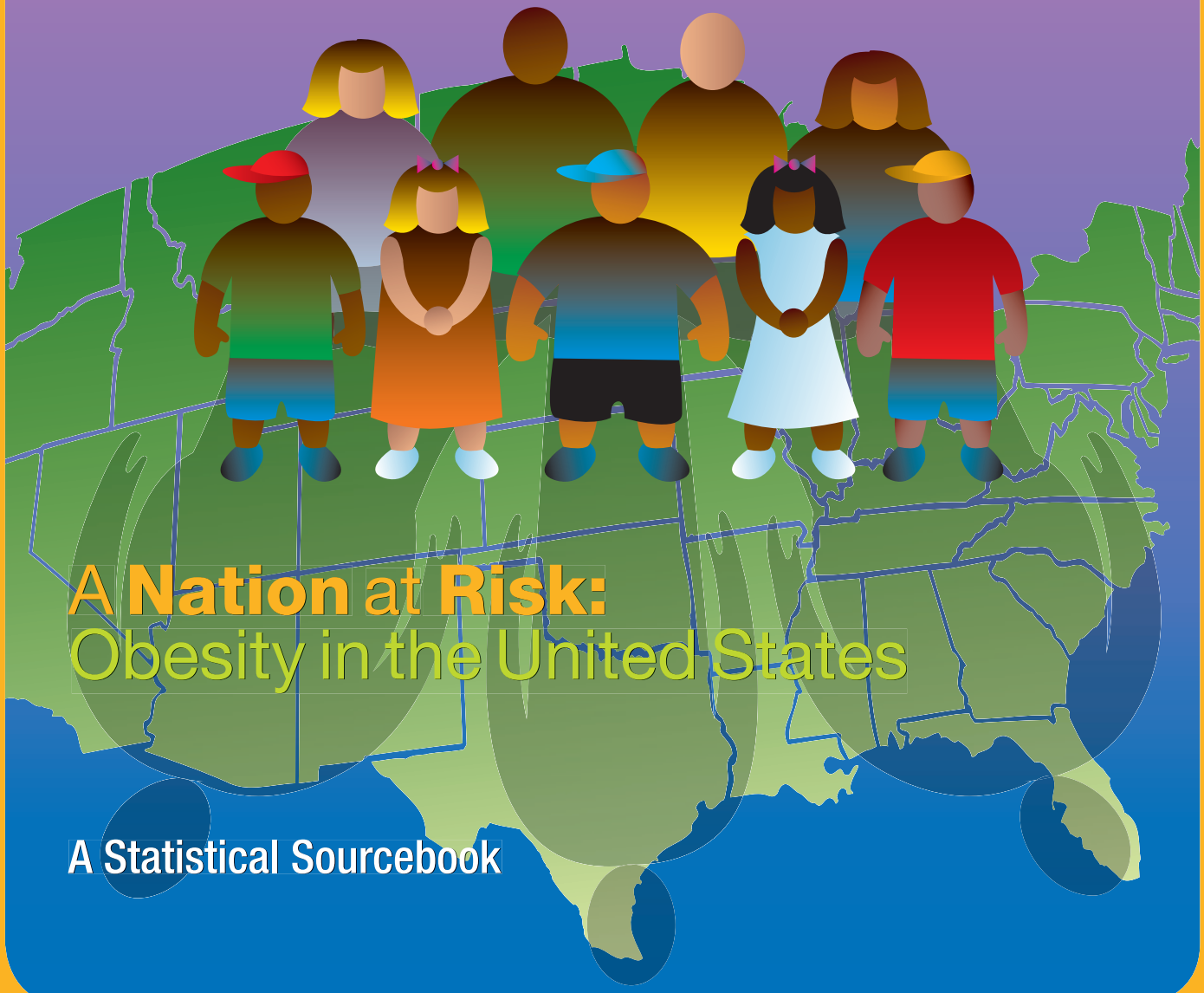

A **Nation** at **Risk:** Obesity in the United States

A Statistical Sourcebook

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Introduction

It's gut-check time.

Overweight and obesity, especially among children, have emerged as serious threats to our nation's health. They have risen rapidly among women, men and children of all racial and ethnic groups. And this trend is projected to continue.

Obesity is a major modifiable risk factor for cardiovascular disease. It also increases the potential for high blood cholesterol, high blood pressure and type 2 diabetes, which are each major risk factors for cardiovascular disease and other serious health problems. Recent research suggests that obesity shortens the average lifespan by at least four to nine months, and if childhood obesity continues to increase, it could cut two to five years from the average lifespan. That could cause our current generation of children to become the first in American history to live shorter lives than their parents.

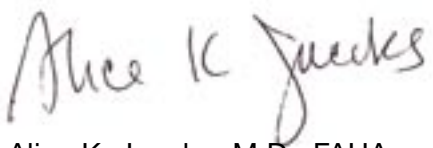
Besides its toll on health, obesity also significantly impacts healthcare costs. The World Bank has estimated the cost of obesity at 12 percent of the nation's healthcare budget. Individuals, businesses and the government all bear the costs for obesity.

We need to take action. Americans must make better food choices and become more physically active. But the environment can make it more difficult for some than others to make changes. Many studies show that a higher percentage of African Americans, Hispanics/Latinos, Native Americans and people of lower socioeconomic status have limited access to healthy foods and adequate facilities for physical activity. Attacking the obesity problem means focusing extra attention upon those at greatest risk.

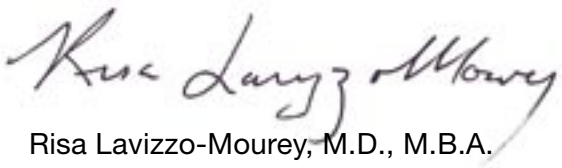
The first step is to raise public awareness about the serious threat posed by this growing epidemic and to get information into the hands of those who will act on it. To do that, the American Heart Association and the Robert Wood Johnson Foundation have created this sourcebook, *A Nation at Risk: Obesity in the United States.* It shows how prevalent obesity has become and examines the factors that contribute to the patterns of unhealthy eating and insufficient physical activity that are at the heart of this epidemic.

We hope you find this sourcebook useful in broadening your understanding of obesity in the United States. We also hope you will share this information with others. We appreciate your commitment to improving health for all Americans — and especially our children.

Sincerely,



Alice K. Jacobs, M.D., FAHA
President,
American Heart Association



Risa Lavizzo-Mourey, M.D., M.B.A.
President and CEO,
The Robert Wood Johnson Foundation

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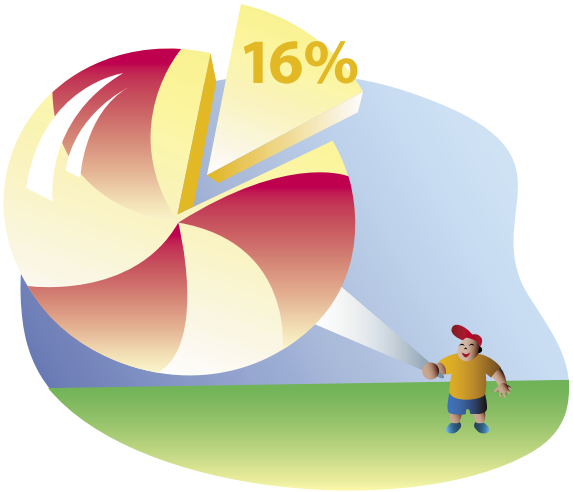
An Epidemic of Excess: Frightening Facts

Statistics from the Centers for Disease Control and Prevention (CDC) are alarming. Today, about 16 percent of all children and teens in the United States are overweight.

Children whose body mass index (BMI) is at or above the 95th percentile are considered overweight. Those whose BMI is at or above the 85th percentile, but below the 95th percentile, are at risk for overweight. (For definitions of weight categories and information about how BMI is measured for children and adults, see Appendix A, page 32.)



Percentage of Overweight Children and Teens in the United States

	Average for All Groups (%)	Non-Hispanic Whites (%)	Non-Hispanic Blacks (%)	Mexican Americans* (%)
Males ages 2–5	9.9	8.2	8.0	14.1
Females ages 2–5	10.7	9.1	9.6	12.2
Males ages 6–11	16.9	14.0	17.0	26.5
Females ages 6–11	14.7	13.1	22.8	17.1
Males ages 12–19	16.7	14.6	18.7	24.7
Females ages 12–19	15.4	12.7	23.6	19.9

** Data for Mexican Americans are as reported by government agencies or specific studies. There is limited data for other Hispanic groups.*

(Hedley AA, et al. Prevalence of overweight and obesity among U.S. children, adolescents, and adults, 1999–2002. JAMA 2004:291:2847–50)

Combined Percentage of Children and Teens Considered Overweight or at Risk for Being Overweight in the United States

	Average for All Groups (%)	Non-Hispanic Whites (%)	Non-Hispanic Blacks (%)	Mexican Americans* (%)
Males ages 2–5	23.0	21.7	20.9	27.6
Females ages 2–5	22.3	20.0	25.6	25.0
Males ages 6–11	32.5	29.3	29.7	43.9
Females ages 6–11	29.9	27.7	37.9	33.8
Males ages 12–19	31.2	29.2	32.1	41.9
Females ages 12–19	30.5	26.5	41.9	39.3

** Data for Mexican Americans are as reported by government agencies or specific studies. There is limited data for other Hispanic groups.*

(Hedley AA, et al. Prevalence of overweight and obesity among U.S. children, adolescents, and adults, 1999–2002. JAMA 2004:291:2847–50)

Other reports suggest the prevalence of childhood obesity may be even worse. During the 2003–04 school year, officials in Arkansas gathered BMI data on nearly 346,000 public school students from pre-kindergarten through 12th grade. Results of this large-scale screening showed that 38 percent of students were either overweight (21 percent) or at risk for overweight (17 percent). That total number (38 percent) was more than 25 percent higher than previous federal estimates for Arkansas that were based on smaller sample sizes and self-reported data.

(The Arkansas Assessment of Childhood and Adolescent Obesity. Arkansas Center for Health Improvement, September 2004)

Perhaps even more alarming than the prevalence of childhood obesity is the rapidly rising trend. Today, more than twice as many children — and almost three times as many teens — are overweight as in 1980.

(Hedley AA, et al. Prevalence of overweight and obesity among U.S. children, adolescents, and adults, 1999–2002. JAMA 2004:291:2847–50; Ogden CL, Flegal KM, Carroll MD, Johnson CL. Prevalence and trends in overweight among U.S. children and adolescents, 1999–2000. JAMA 2002;288:1728–32)

Even our nation's preschoolers are affected. Among children ages 2 to 5, the prevalence of overweight has increased from 7 percent to more than 10 percent, or by more than 40 percent since 1994.

(Centers for Disease Control and Prevention. NHANES 1999–2000; JAMA 2004;291:2847–50)

Obesity also has risen dramatically in U.S. adults. Today 65 percent of all people age 20 and older are overweight or obese. Since 1991, the prevalence of obesity among adults has increased by more than 75 percent.

(Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System)

Prevalence of Overweight and Obesity in Adults Age 20 and Older in the United States

	Overweight & Obesity (%)	Obesity (%)
Total Population	65.1	30.4
Total Males	68.8	27.6
Total Females	61.6	33.2
Non-Hispanic White Males	69.4	28.2
Non-Hispanic White Females	57.2	30.7
Non-Hispanic Black Males	62.9	27.9
Non-Hispanic Black Females	77.2	49.0
Mexican-American* Males	73.1	27.3
Mexican-American* Females	71.7	38.4

** Data for Mexican Americans are as reported by government agencies or specific studies. There is limited data for other Hispanic groups.*

(Hedley AA, et al. Prevalence of overweight and obesity among U.S. children, adolescents, and adults, 1999–2002. JAMA 2004:291: 2847–50)

These increasing numbers document a growing threat to our nation's health. All people are at risk, but not all people are equally at risk, as the next section shows.

Out of Balance: Disparities and Racial, Ethnic and Low-Income Groups

Throughout the United States, overweight and obesity have increased in people of all ethnic groups, all ages, and both genders. This is not an isolated threat to health, nor one limited to a particular population group. (For definitions of overweight and obesity, see Appendix A, page 32.)

However, among some racial, ethnic and socioeconomic groups, and within certain geographic regions, the prevalence of obesity and many obesity-related risk factors is especially high. Clearly some groups are more at risk than others.

While personal choices play a role in the rise of obesity, they alone are not responsible for the epidemic we face today. Many children grow up surrounded by unhealthy foods at home and in school. Others lack access to safe places where they can play and be active. Some low-income neighborhoods have many fast-food restaurants, but few stores or markets that sell nutritious foods. And many Americans of limited economic resources simply can't afford to buy healthy foods, join health clubs, or participate in organized sports or physical activity programs.

Racial and Ethnic Disparities

The obesity epidemic threatens everyone, but not everyone is equally at risk. For example, among children and adolescents, obesity is more common in African Americans and Hispanics. Consider these statistics:

- According to a study of 1,700 households in six diverse Chicago neighborhoods, rates of overweight varied dramatically. In the largely white Norwood Park community, 23 percent of children were overweight, while in five other communities surveyed, all of which have largely African-American or Latino populations, the rate of overweight ranged from 58 percent to 68 percent.

  (Sinai Urban Health Initiative. Improving Community Health Survey: Report I. January 2004. http://www.sinai.org/urban/originalresearch/rwj/Improving_Community_Health_Survey_Report_1.pdf)

- Data from the 2003–04 screening of nearly 346,000 Arkansas public school students showed that the following were either overweight or at risk for overweight:
  - 37 percent of Caucasian students
  - 41 percent of African-American students
  - 46 percent of Hispanic students

  (The Arkansas Assessment of Childhood and Adolescent Obesity. Arkansas Center for Health Improvement, September 2004)

Disparities in Prevalence of Overweight Among Children in the United States

	Non-Hispanic Whites (%)	Non-Hispanic Blacks (%)	Mexican Americans* (%)
Preschoolers	8.6	8.8	13.1
Ages 6–11	13.5	19.8	21.8
Ages 12–19	13.7	21.1	22.5

** Data for Mexican Americans are as reported by government agencies or specific studies. There is limited data for other Hispanic groups.*

(Hedley AA, et al. Prevalence of overweight and obesity among U.S. children, adolescents, and adults, 1999–2002. JAMA 2004:291:2847–50)

- According to a national study, from 1986 to 1998, overweight prevalence rose by more than 120 percent among African-American and Hispanic children, compared with more than 50 percent among whites.

  (Strauss RS, Pollack HA. Epidemic increase in childhood overweight. JAMA 2001;286:2845-8)

- The prevalence of obesity in 7-year-old American Indian children has been estimated recently at nearly 30 percent, representing twice the current estimated prevalence among all U.S. children of that age.

  (Caballero B, Himes JH, Lohman T, et al. Body composition and overweight prevalence in 1704 schoolchildren from 7 American Indian communities. Am J Clin Nutr 2003;78:308–12)

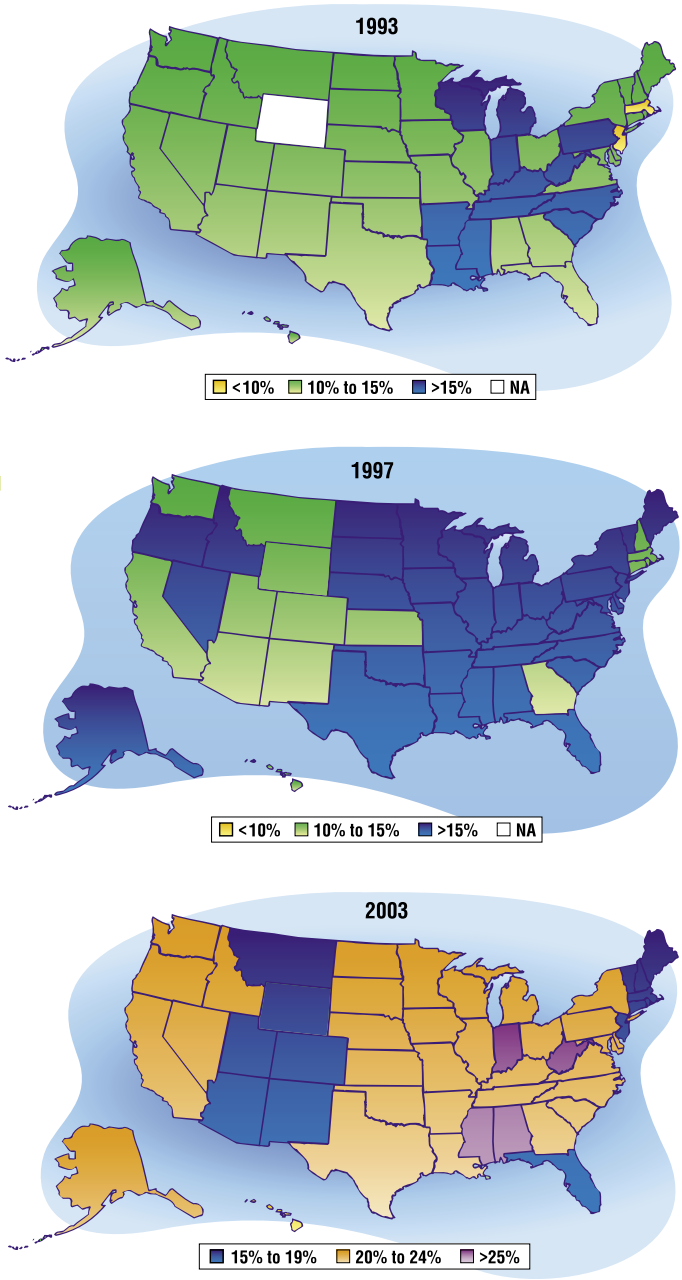
- Among adults, overweight and obesity are highest among African-American (77.2 percent)[1] and Mexican-American (71.7 percent)[1] females, and American-Indian (76.6 percent)[2] and Mexican-American (73.1 percent)[1] males.

  [1](Hedley AA, et al. Prevalence of overweight and obesity among U.S. children, adolescents, and adults, 1999–2002. JAMA 2004:291:2847–50) and [2](Vital and Health Statistics. February 2004; Series 10, No. 219)

Geographic Disparities

Obesity is increasing rapidly throughout the United States. In 1993, 12 states had obesity prevalence rates between 15 percent and 19 percent, and no states had rates at or above 20 percent. By 2003, 15 states had obesity prevalence rates between 15 percent and 19 percent, 31 states had rates between 20 percent and 24 percent, and four states had rates at or above 25 percent. The highest regional prevalence of obesity is consistently in the South.

(Behavioral Risk Factor Surveillance System. Atlanta: Centers for Disease Control and Prevention, 2003; http://www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/index.htm)



Economic Disparities

In some but not all groups, lower incomes are associated with higher prevalence of obesity:

- According to National Health and Nutrition Examination Survey (NHANES) data, non-Hispanic white adolescents from lower-income families have a greater prevalence of overweight than those from higher-income families, but the prevalence of overweight among non-Hispanic blacks and Mexican-American children and adolescents is not related to family income.

  (Troiano RP, Flegal KM. Overweight children and adolescents: description, epidemiology, and demographics. Pediatrics 1998;101:497–504)

- Women of lower socioeconomic status (income $\leq$ 130 percent of poverty threshold or income < $22,660–$24,258 for a family of four) are about 50 percent more likely to be obese than those of higher socioeconomic status (income > 130 percent of poverty threshold). Socioeconomic status does not appear to have a significant effect on obesity among men.

  (Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health, and objectives for improving health. Washington, D.C.: Government Printing Office, 2000)

Disparities in Access to Healthy Foods

People in some communities have limited opportunities to make healthy food choices:

- Fruit and vegetable consumption among African Americans increased 32 percent for each additional supermarket in the local community.

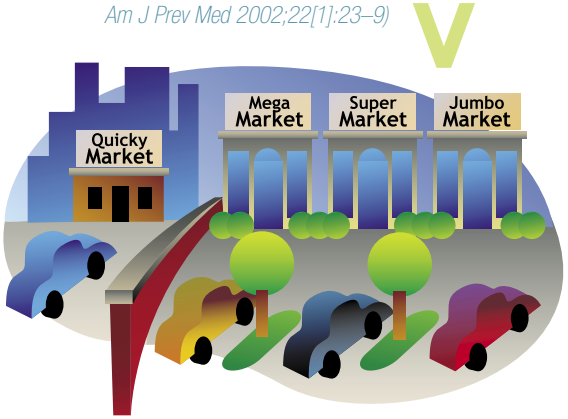
  (Morland K, Wing S, Diez Roux A. The contextual effect of the local food environment on residents' diets. Am J Public Health 2002;92:1761–7)

- A 2004 literature review suggests that healthy foods cost more than less healthy, high-calorie foods.

  (Drewnowski A, Specter SE. Poverty and obesity: the role of energy density and energy costs. Am J Clin Nutr 2004;79:6–16)

- A 2002 study of more than 200 neighborhoods found that there are three times as many supermarkets in wealthy neighborhoods as in poor neighborhoods, and four times as many supermarkets in predominantly white neighborhoods as in predominantly African-American ones.

  (Morland K, Wing S, Diez Roux A, Poole C. Neighborhood characteristic associated with the location of food stores and food service places. Am J Prev Med 2002;22[1]:23–9)



Disparities in Physical Activity and Access to Facilities

Lack of physical activity, a major risk factor for obesity, is also notably high among certain racial, ethnic and socioeconomic groups:

- Non-Hispanic black and Hispanic children are significantly less likely than non-Hispanic white children to report involvement in organized physical activity, as are children with parents who have lower incomes and educational levels.

  (Physical activity levels among children aged 9–13 years — United States, 2002. MMWR 2003;52[33]:785–8)

- Communities with higher percentages of African-American residents tend to have fewer available parks and green spaces, places to play sports, and public pools and beaches.

  (Powell LM, Slater S, Chaloupka FJ. The relationship between physical activity settings and race, ethnicity, and socioeconomic status. Evidence-Based Preventive Medicine 2004;1[2]:135–44)

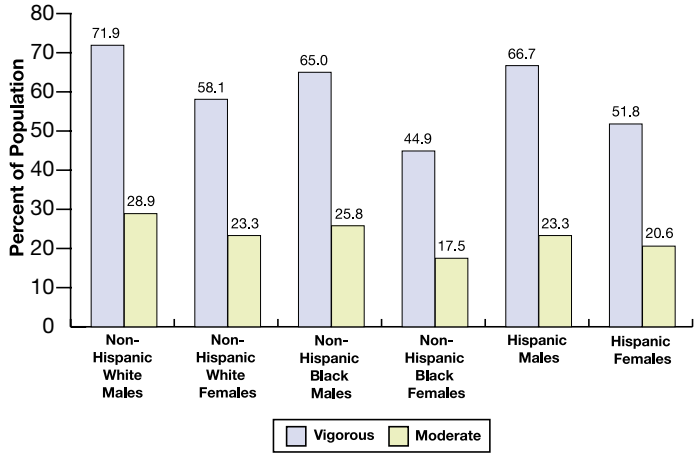
- Moving from a high-poverty area (10 percent poverty rate) to a low-poverty area (1 percent poverty rate) is associated with a 50 percent increase in overall availability of outdoor places to play and engage in physical inactivity.

  (Powell LM, Slater S, Chaloupka FJ. The relationship between physical activity settings and race, ethnicity, and socioeconomic status. Evidence-Based Preventive Medicine 2004;1[2]:135–44)

- Lower levels of parental education are associated with less physical activity for white girls ages 9–19. This is also true for African-American girls at the higher end of this age range.

  (Kimm S, Glynn NW, Kriska AM, et al. Decline in physical activity in African-American girls and white girls during adolescence. NEJM 2002;347:709–15)

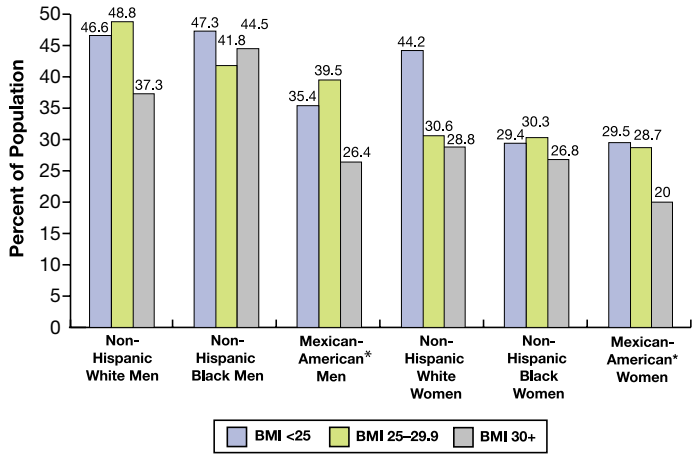
Students in Grades 9–12 Who Participated in Sufficient Vigorous or Moderate Physical Activity During the Past 7 Days by Race/Ethnicity and Sex



Note: *"Vigorous activity" is defined as activity causing sweating and hard breathing for at least 20 minutes on 3 or more of the 7 days. "Moderate activity" is defined as activities such as walking or bicycling lasting for at least 30 minutes on 5 or more of the 7 days.*

(Youth Risk Behavior Surveillance — United States, 2003. MMWR 2004;53(SS-2))

Prevalence of Moderate or Vigorous Activity in Adults Age 20 and Older by Race/Ethnicity, Sex and BMI



** Data for Mexican Americans are as reported by government agencies or specific studies. There is limited data for other Hispanic groups.*

(National Center for Health Statistics, Centers for Disease Control and Prevention. The Third National Health and Nutrition Examination Survey, 1988–94)

The choices individuals make about what they eat and their activity level have an undeniable role in the rise of overweight and obesity. But individuals exist within social systems and so are influenced by a variety of forces. Those at greatest risk of overweight and obesity, such as members of racial and ethnic minorities and lower-income groups, are often those subject to the greatest pressures. Reducing overweight and obesity in these communities will require a comprehensive focus, as pointed out in the report by the Institute of Medicine entitled *Preventing Childhood Obesity: Health in the Balance.* *(Washington, D.C.: National Academies Press, 2005)*

To reach high-risk populations, targeted intervention strategies suited to the particular culture, language, and social and physical environment are needed. The goal should be to increase access to information and options for good nutrition and physical activity that are acceptable within the particular culture. Church-based and school-based programs are often successful, in part because of their close connection to the community.

Members of racial, ethnic and low-income communities need to be active in assessing, planning, implementing and evaluating an intervention. Federal and state governments, nonprofits and the private sector all need to be involved in a coordinated effort.

Double Trouble: The Health and Financial Consequences of Obesity

Health Consequences

Obesity by itself is a major risk factor for coronary heart disease, which can lead to heart attack. Obesity also:

- Raises blood cholesterol and triglyceride levels.
- Lowers HDL "good" cholesterol. HDL cholesterol is linked with lower heart disease and stroke risk, so low levels of HDL tend to raise risk.
- Raises blood pressure levels.
- Can induce diabetes. Diabetes makes the danger of heart attack especially high.

An analysis of a CDC survey found a direct correlation between increases in body mass index (BMI) and increased risk for other diseases, as shown in the table. (For more information on BMI, see Appendix A, page 32.)

Increased Risk of Obesity-Related Diseases Associated with Higher BMI

Disease	BMI of less than 25	BMI of 25 to 29.9	BMI of 30 to 34.9	BMI of 35 or more
Diabetes (Type 2)	1.00	2.42	3.35	6.16
Gallstones	1.00	1.97	3.30	5.48
Hypertension	1.00	1.92	2.82	3.77
Arthritis	1.00	1.56	1.87	2.39
Stroke	1.00	1.53	1.59	1.75
Heart Disease	1.00	1.39	1.86	1.67

(Centers for Disease Control and Prevention. Third National Health and Nutrition Examination Survey, 1988–94. Analysis by the Lewin Group [Falls Church, Va.], 1999)

Other diseases not listed above but also related to obesity include breast cancer, colorectal cancer, endometrial cancer, end-stage renal disease, liver disease, low back pain, renal cell cancer, obstructive sleep apnea and urinary incontinence.

The adverse health effects of obesity (or overweight) can be seen as early as childhood. For example:

- Most overweight children have at least one major physiological risk factor (besides overweight) for cardiovascular disease, such as high cholesterol, high triglycerides, high insulin or high blood pressure.

  (Freedman DS, Dietz WH, Srinivasan SR, Berenson GS. The relation of overweight to cardiovascular risk factors among children and adolescents: The Bogalusa Heart Study. Pediatrics 1999;103: 1175–82)

- Overweight adolescents have a 70 percent chance of becoming overweight or obese adults. This increases to 80 percent if one or more parent is overweight or obese. Overweight or obese adults are at risk for a number of health problems including heart disease, type 2 diabetes, high blood pressure and some forms of cancer.

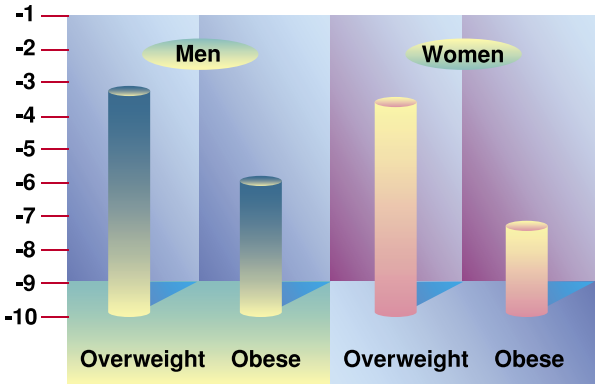
  (The Problem of Overweight in Children and Adolescents. Department of Health and Human Services Fact Sheet; http://www.surgeongeneral.gov/topics/obesity/calltoaction/fact_adolescents.htm)

- Overweight children are more likely to have abnormally thick heart muscle tissue when they become adults, which increases the risk of heart attack and heart failure.

  (Li X, Li S, Ulusoy E, Chen W, Srinivasan SR, Berenson GS. Childhood adiposity as a predictor of cardiac mass in adulthood: The Bogalusa Heart Study. Circulation 2004;110:3488–92)

- Some experts are concerned about how childhood obesity could raise the risk for diabetes later in life. According to CDC statistics, of children born in the United States in 2000, the following are likely to develop diabetes at some point in their lives:
  - 31 percent of white girls and 27 percent of white boys
  - 49 percent of African-American girls and 40 percent of African-American boys
  - 53 percent of Hispanic girls and 45 percent of Hispanic boys

  (Narayan KMV, Boyle JP, Thompson TJ, Sorensen SW, Williamson DF. Lifetime risk for diabetes mellitus in the United States. JAMA 2003;290:1884–90)



People who are obese or overweight also have a lower life expectancy:

- A 40-year-old nonsmoking male who is overweight will lose 3.1 years of life expectancy; one who is obese will lose 5.8 years. A 40-year-old overweight nonsmoking female will lose 3.3 years of life expectancy; one who is obese will lose 7.1 years.

  (Peeters A, Barendregt JJ, Willekens F, Mackenbach JP, Al Mamun A, Bonneux L. Overweight and obesity by middle age are associated with a shortened lifespan. Ann Intern Med 2003;138:24–32)

- For adults with a BMI above 45, life expectancy decreases by up to 20 years.

  (Fontaine KR, Redden DT, Wang C, et al. Years of life lost due to obesity. JAMA 2003;289:187–93)

Financial Consequences

Overweight and obesity don't just increase health problems; they also increase costs. And the costs are substantial for individuals, their employers and government health programs, such as Medicare and Medicaid. The statistics below provide more detail:

- The health-related economic cost to U.S. business is significant, representing about 5 percent of total medical care costs.

  (Thompson D, Edelsberg J, Kinsey KL, Oster G. Estimated economic costs of obesity to U.S. business. Am J Health Promot 1998;13[2]120–7)

- As BMI increased, so did the number of sick days, medical claims and healthcare costs.

  (Burton WN, Chen CY, Schultz AB, Edington DW. The costs of body mass index levels in an employed population. Statistical Bulletin of the Metropolitan Life Insurance Co 1999;80[3]:8–14)

- The excess medical expenditures that result from treating obesity-related diseases are significant. Obese adults under age 65 have annual medical expenses that are 36 percent higher than those of normal-weight people. But people age 65 and older account for one-fourth of the obese population, and because of the chronic nature of diseases resulting from obesity, medical spending for elderly obese people is probably much higher.

  (Sturm R. The effects of obesity, smoking and drinking on medical problems and costs. Health Aff [Millwood] 2002; [March–April]:245–53)

- Obese people who live to age 65 have much larger annual Medicare expenses than people of normal weight.

  (Finkelstein EA, Fiebelkorn IC,Wang G. National medical spending attributable to overweight and obesity: how much, and who's paying. Health Aff [Millwood] 2003;[January-June, Supplement: Web Exclusives]:W3-219–26; or see http://content.healthaffairs.org/cgi/content/full/hlthaff.w3.219v1/DC1)

- Obesity-associated annual hospital costs for children more than tripled between 1979 and 1999.

  (Wang G, Dietz WH. Economic burden of obesity in youths aged 5 to17 years:1979–1999. Pediatrics 2002;109(5):E81–E86)

Causes of Obesity

Too Much Of The Wrong Foods

Bigger Portions

Over the years, most Americans have been consuming more calories:

- Between 1977 and 1994, overall caloric consumption increased by about 9 percent in adolescent boys and about 7 percent in adolescent girls.

  (Enns CW, Mickle SJ, Goldman JD. Trends in food and nutrient intakes by adolescents in the United States. Fam Econ Nutr Rev 2003;15[2]15–27)

- Between 1988–94 and 1999–2000, the median calorie intake rose in boys and girls under age 6, and fell in boys ages 8–11 and 12–19. It rose a small amount in girls ages 6–11 and basically remained constant in girls ages 12–19.

  (NHANES III and NHANES 1999–2000)

- Between 1985 and 2000, average daily caloric consumption among adults rose by 12 percent, or roughly 300 calories.

  (Putnam J, Allshouse J, Kantor LS. U.S. per capita food supply trends. Food Review [USDA]. Winter 2002; http://ers.usda.gov/publications/FoodReview/DEC2002/frvol25i3a.pdf)

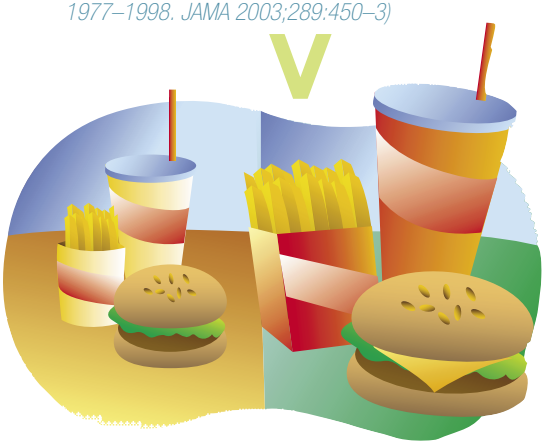
One reason for this caloric increase is that portion sizes have gotten bigger.

Studies have shown that, between 1977 and 1996, portion sizes for key food groups grew markedly in the United States, not only at fast-food outlets but also in homes and at conventional restaurants.

One study of portion sizes for typical items showed that:

- Salty snacks increased from 132 calories to 225 calories.
- Soft drinks increased from 144 calories to 193 calories.
- French fries increased from 188 calories to 256 calories.
- Hamburgers increased from 389 calories to 486 calories.

(Nielsen SJ, Popkin BM. Patterns and trends in food portion sizes, 1977–1998. JAMA 2003;289:450–3)



Less Nutrition

Increased calorie consumption is clearly a problem. But in addition, many of our food choices are not meeting our nutritional needs.

Fruits and Vegetables

Most Americans do not eat enough fruits and vegetables.

- From 1994–96 for children ages 6–19, only 14 percent met then-current United States Department of Agriculture (USDA) Food Pyramid recommendations for daily fruit intake (2–4 servings per day). Only 20 percent got enough vegetables (3–5 servings per day). (Note: USDA recommendations were updated in 2005. For people who eat 2,000 calories a day, the USDA now suggests 2 cups of fruit and 2 1/2 cups of vegetables per day. People who consume more or less calories should vary their fruit and vegetable intake accordingly.

  (Gleason P, Suitor C. Children's Diets in the Mid-1990s. Alexandria, Va.: Department of Agriculture, January 2001)

- Among high school students, only 23.6 percent of males and 20.3 percent of females eat five or more servings of fruits and vegetables per day.

  (Youth Risk Behavior Surveillance — United States, 2003. MMWR 2004;53[SS-2])

- African-American students (24.5 percent) are more likely than white students (20.2 percent) to eat five or more servings of fruits and vegetables a day. This racial/ethnic difference was higher for male students.

  (Youth Risk Behavior Surveillance — United States, 2003. MMWR 2004;53[SS-2])

- In 1980, about 50 percent of high school seniors reported eating green vegetables "nearly every day or more." By 2003, that figure had dropped to about 30 percent.

  (YES Occasional Papers. Paper 3. Ann Arbor, Mich.: Institute for Social Research, May 2003.)

- In 2000, 81 percent of men and 73 percent of women reported eating fewer than five servings of fruits and vegetables a day.

  (Behavioral Risk Factor Surveillance System, 2000. Atlanta: Centers for Disease Control and Prevention, 2000)

Whole Grains

Americans aren't getting enough whole grains, either. Whole grains include all parts of the grain — the bran (or fiber-rich outer layer), the endosperm (middle part) and the germ (the nutrient-rich inner part). When grains are milled, or refined, the bran and germ portions are removed, leaving only the endosperm.

Whole grains include whole wheat, whole oats, barley, whole rye, and brown and wild rice.

Products made with whole grains, such as breads, cereals, pancakes and waffles made with 100 percent whole-wheat flour, retain more fiber and vitamins and minerals.

Here are some statistics on whole-grain consumption:

- Despite USDA Food Pyramid recommendations to consume several daily servings of whole grains, in 1994–96, intake of whole grains for children was one serving or less.

  (Enns CW, Mickle SJ, Goldman JD. Trends in food and nutrient intakes by children in the United States. Fam Econ Nutr Rev 2002;14[2]:56–68)

- Most Americans consume less than one serving of whole grains a day, but between the early 1980s and 2000, consumption of refined grains increased. (Refined grains include white, whole wheat and durum flour, all of which have less nutritional value than whole grains.)

  (Putnam J, Allshouse J, Kantor LS. U.S. per capita food supply trends. Food Review [USDA]. Winter 2002; http://ers.usda.gov/publications/FoodReview/DEC2002/frvol25i3a.pdf)

Milk

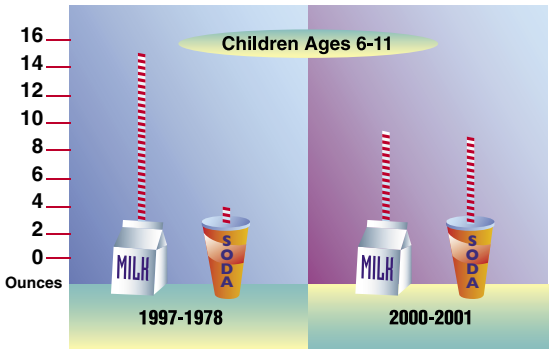
Milk consumption is also lower than it should be:

- Between 1977–78 and 2000–01, milk consumption decreased by 39 percent in children ages 6–11, while consumption of fruit juice rose 54 percent, fruit drink consumption rose 69 percent and consumption of carbonated soda rose 137 percent.

  (Cleveland L. U.S. Department of Agriculture; National Food Consumption Survey, 1977–78; What We Eat in America, NHANES 2001–02)

- In 1977–78, children ages 6–11 drank about four times as much milk as soda. In 2001–02, they drank about the same amounts of milk and soda.

  (Cleveland L. U.S. Department of Agriculture; National Food Consumption Survey, 1977–78; What We Eat in America, NHANES 2001–02)



Total Fat and Saturated Fat

Americans are also consuming more dietary fat than is recommended:

- Average percent of calories from total fat among children…
  - Less than 6 years old — 32.9
  - Ages 6–11 — 32.9
  - Ages 12–19 — 32.0

  (American Heart Association recommendation for kids over age 2: No more than 30 percent of total calories)

- Average percent of calories from saturated fat among children…
  - Less than 6 years old — 12.7
  - Ages 6–11 — 11.7
  - Ages 12–19 — 11.3

  (American Heart Association recommendation: No more than 7 percent to 10 percent of total calories)

- Average percent of calories from total fat among adults…
  - Ages 20–39 — 32.2
  - Ages 40–59 — 33.3
  - Age 60 and older — 32.8

  (American Heart Association recommendation: Total fat intake should be adjusted to fit total caloric needs. Overweight people should limit calories from fat to no more than 30 percent.)

- Average percent of calories from saturated fat among adults…
  - Ages 20–39 — 10.9
  - Ages 40–59 — 11.1
  - Age 60 and older — 10.7

  (American Heart Association recommendation: No more than 10 percent for healthy people over age 2, and no more than 7 percent for people with coronary heart disease, diabetes or high LDL cholesterol.)

  (Wright JD, Wang CY, Kennedy-Stephenson J, Erwin RB. Dietary intake of ten key nutrients for public health, United States: 1999–2000. Advance Data from Vital and Health Statistics. April 17, 2003. No. 334)

Added Sugars

Over the past 20 years, Americans have increased their consumption of "added sugars," which are often found in carbonated soft drinks, fruit drinks, sports beverages and processed foods. Added sugars contain "empty" calories because they have little or no nutritional value. Consumption of added sugars also has increased dramatically among adults. Many 100-percent natural fruit juices, such as apple juice and grape juice, also have high sugar content.

Between 1977–78 and 1994–96 for adolescents ages 12–19:

- Girls' average daily consumption of fruit juices rose from 2.54 to 4.73 ounces (nearly doubled), and their soda consumption rose from 7.34 to 13.97 ounces (nearly doubled).

  (Enns CW, Mickle SJ, Goldman JD. Trends in food and nutrient intakes by adolescents in the United States. Fam Econ Nutr Rev 2003;15[2]:15–27)

- Boys' average daily consumption of fruit juices rose from 3.46 to 7.23 ounces (more than doubled), and their soda consumption rose from 7.76 to 21.45 ounces (nearly tripled).

  (Enns CW, Mickle SJ, Goldman JD. Trends in food and nutrient intakes by adolescents in the United States. Fam Econ Nutr Rev 2003;15[2]:15–27)

- Among adults, consumption of added sugars increased by 22 percent between 1980–84 and 2000.

  (Putnam J, Allshouse J, Kantor LS. U.S. per capita food supply trends. Food Review [USDA]. Winter 2002; http://ers.usda.gov/publications/FoodReview/DEC2002/frvol25i3a.pdf)

- Between 1977 and 1997, consumption of sugar-sweetened beverages, such as soft drinks and fruit juices, rose by 61 percent among adults.

  (Schulze MB, Manson JE, Ludwig DS. Sugar-sweetened beverages, weight gain, and incidence of type 2 diabetes in young and middle-aged women. JAMA 2004;292:927–34)

In 1999–2000 the top 10 items* consumed by boys and girls ages 6–19 were:

1. Carbonated beverages
2. Low-fat milk
3. Fruit drinks
4. Whole milk
5. Grain mixtures (pizza, pasta)
6. Meat mixtures (hamburgers, etc.)
7. White potatoes (french fries)
8. Sugars/sweets
9. Cakes/cookies
10. Non-citrus juices

The greatest changes between 1977 and 1996 were:

Increases:

1. Carbonated beverages
2. Fruit drinks
3. Low-fat milk
4. Grain mixtures (pizza, pasta)
5. Non-citrus juices

Decreases:

1. Whole milk (and overall milk)
2. Beef
3. Corn, peas, green beans

**Based on grams of food consumed.*

Enns CW, Mickle SJ, Goldman JD. Trends in food and nutrient intake by children in the United States. Fam Econ Nutr Rev 2002;14(2):56–68.

Enns CW, Mickle SJ, Goldman JD. Trends in food and nutrient intake by adolescents in the United States. Fam Econ Nutr Rev 2003;15(2):15–27.

Eating Out

Haste makes waists. Fast-food restaurants are widespread, popular and contributing to the obesity epidemic.

The traditional home-cooked meal is becoming a thing of the past as more Americans than ever are eating away from home. Today there are more two-income families, so often there is less time to prepare food. Americans travel more than they used to, commute longer distances to their jobs, and work longer hours. Also, the average family is smaller today, and more people live alone. Each of these factors has contributed to the increased popularity of restaurants and fast-food outlets.

The statistics below show the dramatic growth in meals eaten away from home:

- In 1970, about 25 percent of total food spending occurred in restaurants. By 1995, 40 percent of food dollars were spent away from home.

  (Paeratakul S, Ferdinand D, Champagne C, Ryan D, Bray G. Fast-food consumption among US adults and children. J Am Diet Assoc 2003:103:1332–8)

- Americans' spending on fast food increased from $6 billion to $110 billion over the last 30 years — or more than 18-fold.

  (Schlosser E. Fast Food Nation. New York: Houghton Mifflin, 2001)

- On average, children ages 11–18 eat at fast-food restaurants twice a week.

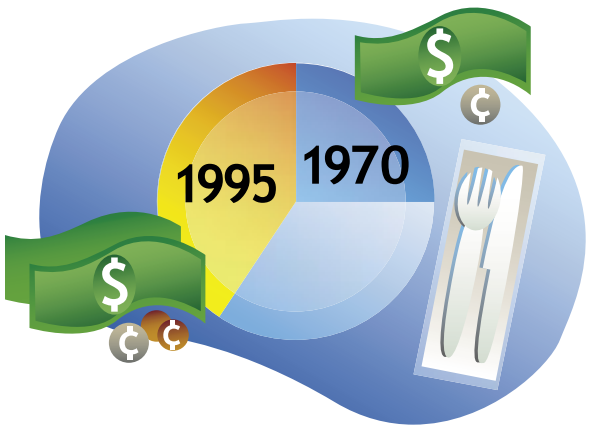
  (Paeratakul S, Ferdinand D, Champagne C, Ryan D, Bray G. Fast-food consumption among US adults and children. J Am Diet Assoc 2003:103:1332–8)

- The percentage of food consumed by children in restaurants and fast-food outlets nearly tripled between 1977 (6.5 percent) and 1996 (19.3 percent).

  (St-Onge MP, Keller KL, Heymsfield SB. Changes in childhood food consumption patterns. Am J Clin Nutr 2003;78:1068–73)

- A study in New Orleans found a higher proportion of fast-food restaurants in low-income and African-American neighborhoods.

  (Block JP, Scribner RA, DeSalvo KB. Fast food, race/ethnicity, and income. Am J Prev Med 2004;27:211–7)



- Between 1970 and 1980, the number of fast-food outlets in the United States increased from about 30,000 to 140,000, and sales increased by about 300 percent. In 2001, there were about 222,000 fast-food outlets.

  (Paeratakul S, Ferdinand D, Champagne C, Ryan D, Bray G. Fast-food consumption among US adults and children. J Am Diet Assoc 2003:103:1332–8)

Research suggests that food eaten away from home (especially fast food), tends to be higher in total fat, saturated fat and sodium, and lower in fiber. In addition, people eating away from home are likely to eat more foods, and in larger portions.

- When children and teens eat fast food, they consume more calories, fat, carbohydrates, added sugars and sugar-sweetened beverages. They also consume less fiber and milk, and fewer fruits and non-starchy vegetables.

  (Bowman SA, Gortmaker SL, Ebbeling CB, Pereira MA, Ludwig DS. Effects of fast-food consumption on energy intake and diet quality among children in a national household survey. Pediatrics 2004;113[1]:112–8)

- Away-from-home foods eaten by children were higher in fat and saturated fat and lower in fiber and calcium than those eaten at home.

  (Lin BH, Guthrie J, Blaylock JR. The Diets of America's Children. Washington, D.C.: Department of Agriculture, 1996)

- According to one study, on the days when children eat fast food, they consume an average of 187 more total calories.

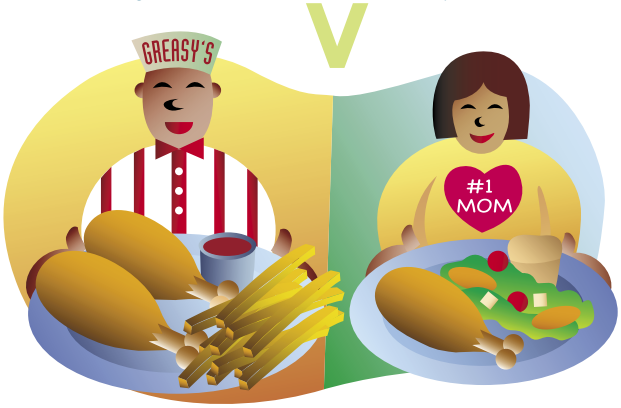
  (Bowman SA, Gortmaker SL, Ebbeling CB, Pereira MA, Ludwig DS. Effects of fast-food consumption on energy intake and diet quality among children in a national household survey. Pediatrics 2004; 113:[1]:112–8)

- During a 15-year study, adults who ate fast food more than twice a week gained 10 pounds more than those who ate fast food less than once a week, and their insulin resistance increased twice as fast.

  (Pereira MA, Kartashov AI, Ebbeling CB, et al. Fast-food habits, weight gain, and insulin resistance [the CARDIA study]: 15-year prospective analysis. Lancet 2005;365:4–5)

- Children eat nearly twice as many calories (770) at restaurants as they do during a meal at home (420).

  (Zoumas-Morse C, Rock CL, Sobo EJ, Neuhouser ML. Children's patterns of macronutrient intake and associations with restaurant and home eating. J Am Diet Assoc 2001;101:923–5)



Lack of Physical Activity

Today, children and adults in the United States don't get as much physical activity as they should.

At least 30 minutes of moderate physical activity on most days of the week is the recommended minimum. However, nearly 23 percent of children[1] and nearly 40 percent of adults[2] get no free-time physical activity at all.

[1](Physical activity levels among children aged 9–13 years — United States, 2002. MMWR 2003;52[33]:785–8) and [2](National Center for Health Statistics. National Health Interview Survey, 1999–2001)

Some children simply don't have the opportunity to engage in physical activity. Many schools have dropped or reduced their physical education programs, and some communities lack sufficient recreational facilities (see Disparities, page 06). Also, kids are spending more of their free time watching television, surfing the Internet or playing video games. (See Technology, page 27.)

Technology also has played a role in declining levels of physical activity in adults, too. A century ago, farming or other forms of physical labor were much more common. Today, more adults have sedentary jobs. And when the workday is over, they ride home in cars, trains or buses.

Between 1977 and 1995, the number of personal trips made by walking decreased by 40 percent, while automobile trips increased to almost 90 percent of all trips made.

(National Personal Transportation Survey: 1977, 1990, 1995. See: http://activelivingbydesign.org/fileadmin/template/documents/albd_primer_low.pdf)

The Situation in Schools

Kids who aren't physically active have a higher likelihood of becoming overweight or obese. A generation ago schools fostered physical activity. Today many schools have deemphasized it.

- A national study reports that only 8 percent of elementary schools, 6.4 percent of middle/junior high schools, and 5.8 percent of senior high schools provide daily physical education or its equivalent (150 minutes per week for elementary schools, 225 minutes per week for middle/junior and senior high schools is advised) for the entire school year for students in all grades in the school.

  (Results from the School Health Policies and Programs Study 2000. Journal of School Health 2001;71[7])

- According to a national study, 92 percent of elementary schools do not provide daily physical education classes for all student throughout the entire school year.

  (School Health Policies and Programs Study. Journal of School Health 2001;71[7])

- Six out of 10 children ages 9–13 don't participate in any kind of organized sports/physical activity program outside of school, and children whose parents have lower incomes and education levels are even less likely to participate. Nearly 23 percent don't engage in any free-time physical activity.

  (Physical activity levels among children aged 9–13 years — United States, 2002. MMWR 2003;52[33]:75–8)

- Only 25 percent of high school students participate in at least a half-hour of moderate physical activity on five or more days of the week.

  (Youth Risk Behavior Surveillance — United States, 2003. MMWR 2004;53[SS-2])

Technology's Sedentary Seduction

As children devote more and more of their free time to television, computers and video games, they're spending less time playing sports and games and being physically active. For example:

- A survey of young people ages 8 to 18 showed their daily activities accounted for the following hours:
  - Watching television — 3 hrs. 51 min.
  - Using the computer — 1 hr. 2 min.
  - Video games — 49 min.
  - Reading — 43 min.

  (Generation M: Media in the Lives of 8–18 Year Olds. Menlo Park, Calif.: Kaiser Family Foundation, 2005)

- Boys spend an average of one hour and 12 minutes playing video games daily, while girls average 25 minutes a day.

  (Generation M: Media in the Lives of 8–18 Year Olds. Menlo Park, Calif.: Kaiser Family Foundation, 2005)

- The typical American child spends about 44.5 hours per week using media outside of school.

  (Generation M: Media in the Lives of 8–18 Year Olds. Menlo Park, Calif.: Kaiser Family Foundation, 2005)

- More than two-thirds (68 percent) of children now have a television set in their bedrooms, and 31 percent have a computer. Kids who have a television in their bedroom watch about an hour and a half more per day than those who don't. Kids who have a computer in their bedroom use it about 45 minutes more per day than those who don't.

  (Generation M: Media in the Lives of 8–18 Year Olds. Menlo Park, Calif.: Kaiser Family Foundation, 2005)

For More Information

Action Plans

Preventing Childhood Obesity: Health in the Balance, the Institute of Medicine of the National Academies (2005)

http://www.iom.edu/report.asp?id=22596

The Surgeon General's Call to Action to Prevent & Decrease Overweight and Obesity, U.S. Department of Health & Human Services (2001)

http://www.surgeongeneral.gov/topics/obesity/

Nutrition

Calories Count, U.S. Food and Drug Administration (2004)

http://www.cfsan.fda.gov/~dms/nutrcal.html

Dietary Guidelines for Americans 2005, U.S. Department of Health and Human Services and U.S. Department of Agriculture (2005)

http://www.health.gov/dietaryguidelines/dga2005/document/

Food Marketing and the Diets of Children and Youth, Institute of Medicine

http://www.iom.edu/project.asp?id=21939

Healthy School Meals Resource System, U.S. Department of Agriculture

http://schoolmeals.nal.usda.gov/

Marketing Food to Children, World Health Organization (WHO) (2004)

http://whqlibdoc.who.int/publications/2004/9241591579.pdf

My Pyramid Plan, U.S. Department of Agriculture

http://www.mypyramid.gov/

National Health and Nutrition Examination Survey, Centers for Disease Control and Prevention

http://www.cdc.gov/nchs/nhanes.htm

National Health Education Standards, American Association for Health Education

http://www.aahperd.org/aahe/pdf_files/standards.pdf

Nationwide Food Consumption Survey, U.S. Department of Agriculture

http://www.barc.usda.gov/bhnrc/foodsurvey/

Obesity Education Initiative, National Heart, Lung and Blood Institute

http://www.nhlbi.nih.gov/about/oei/

The Power of Choice: Helping Youth Make Healthy Eating and Fitness Decisions, U.S. Food and Drug Administration and U.S. Department of Agriculture's Food and Nutrition Service (2003)

http://www.fns.usda.gov/tn/resources/power_of_choice.html

U.S. Department of Agriculture Team Nutrition Web site

http://www.fns.usda.gov/tn/Educators/index.htm

Physical Activity/Education

Guidelines for School and Community Programs to Promote Lifelong Physical Activity Among Young People, Centers for Disease Control and Prevention (1997)

http://www.cdc.gov/mmwr/preview/mmwrhtml/00046823.htm

Healthy People 2010: Physical Activity and Fitness, Centers for Disease Control and Prevention and President's Council on Physical Fitness and Sports (2000)

http://www.healthypeople.gov/document/HTML/Volume2/22Physical.htm#_Toc490380803

Hearts N' Parks, National Heart, Lung, and Blood Institute and National Recreation and Park Association

http://www.nhlbi.nih.gov/health/prof/heart/obesity/hrt_n_pk/index.htm

KidsWalk-to-School Program, Centers for Disease Control and Prevention

http://www.cdc.gov/nccdphp/dnpa/kidswalk/

Obesity Education Initiative, National Heart, Lung, and Blood Institute

http://www.nhlbi.nih.gov/about/oei/

Opportunity to Learn: Standards for Elementary Physical Education, National Association for Sport and Physical Education (2000)

http://member.aahperd.org/template.cfm?template=Productdisplay.cfm&productID=368&section=5

Safe Routes to School Tool Kit, National Highway Traffic Safety Administration (2004)

http://www.nhtsa.dot.gov/people/injury/pedbimot/bike/Safe-Routes-2004/

Walkability Checklist, Pedestrian and Bicycle Information Center, Partnership for a Walkable America, U.S. Department of Transportation and U.S. Environmental Protection Agency

http://www.walkinginfo.org/walkingchecklist.htm

Policy

Childhood Obesity — An Overview of Policy Options, National Conference of State Legislatures

http://www.ncsl.org/programs/health/childhoodobesity.htm

http://www.ncsl.org/programs/health/phyactobesity.htm?CFID=233914&CFTOKEN=28383282

Fit, Healthy, and Ready to Learn: A School Health Policy Guide, National Association of State Boards of Education (2000)

http://www.nasbe.org/HealthySchools/fithealthy.mgi

The Obesity Epidemic — How States Can Trim the 'Fat,' National Governors Association

http://www.nga.org/center/divisions/1,1188,C_ISSUE_BRIEF^D_3878,00.html

An Ounce of Prevention: Obesity and Healthy Lifestyles, Council of State Governments (2001)

http://www.csg.org/CSG/Policy/health/health+teleconferences/default.htm

Policy Database, Centers for Disease Control and Prevention

http://apps.nccd.cdc.gov/DNPALeg/

Policy Database, National Association of State Boards of Education

http://www.nasbe.org/HealthySchools/States/State_Policy.html

Preventing Obesity in Youth Through School-Based Efforts

http://www.nga.org/center/divisions/1,1188,C_ISSUE_BRIEF^D_5109,00.html

Research

Strategic Plan for NIH Obesity Research (Executive Summary) National Institute of Health, 2004

http://www.obesityresearch.nih.gov/About/Obesity_ExecSummary.pdf

School Health

Cardiovascular Health Promotion in the Schools, American Heart Association (2004)

http://circ.ahajournals.org/cgi/content/full/110/15/2266?eaf

Changing the Scene: Improving the School Nutrition Environment Tool Kit, U.S. Department of Agriculture (2000)

http://www.fns.usda.gov/tn/Healthy/changing.html

Childhood Obesity, The Center for Health and Healthcare in Schools

http://www.healthinschools.org/sh/obesityfs.pdf

Criteria for Evaluating School-Based Approaches to Increasing Good Nutrition and Physical Activity, Action for Healthy Kids (2004)

http://www.actionforhealthykids.org/docs/specialreports/report_small.pdf

HealthierUS School Challenge, U.S. Department of Agriculture (2004)

http://www.fns.usda.gov/tn/HealthierUS/index.htm

Healthy Schools for Healthy Kids, The Robert Wood Johnson Foundation

http://www.rwjf.org/files/publications/other/HealthySchools.pdf

The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our Schools, Action for Healthy Kids (2004)

http://www.actionforhealthykids.org/docs/specialreports/LC%20Color%20_120204_final.pdf

School Health Index, Centers for Disease Control and Prevention (CDC)

http://apps.nccd.cdc.gov/shi/

Ten Strategies for Promoting Physical Activity, Healthy Eating, and a Tobacco-free Lifestyle Through School Health Programs, Centers for Disease Control and Prevention (2003)

http://www.cdc.gov/healthyyouth/publications/pdf/ten_strategies.pdf

Statistics

Heart Disease and Stroke Statistics — 2005 Update, American Heart Association

http://www.americanheart.org/presenter.jhtml?identifier=1200026

Appendix A: Body Mass Index (BMI)

What Is BMI?

Body mass index — or BMI — is a mathematical calculation used to determine which of four weight categories a person falls into. For adults, BMI is calculated by dividing a person's body weight in pounds by his or her height in inches squared, then multiplying that number by 703.

$$BMI = \left(\frac{\text{Weight in Pounds}}{(\text{Height in inches}) \times (\text{Height in inches})} \right) \times 703$$

For adults, BMI values of:

- Less than 18.5 are considered underweight.
- 18.5 to less than 25 are considered normal weight.
- 25.0 to less than 30.0 are considered overweight. A BMI of about 25 corresponds to about 10 percent over ideal body weight.
- 30.0 or greater are considered obese, or about 30 pounds or more overweight. Extreme obesity is defined as a BMI of 40 or greater.

BMI Table for Adults

Height	Minimal risk (BMI under 25)	Moderate risk (BMI 25–29.9) Overweight	High risk (BMI 30 and above) Obese
4′10″	118 lbs. or less	119–142 lbs.	143 lbs. or more
4′11″	123 or less	124–147	148 or more
5′0″	127 or less	128–152	153 or more
5′1″	131 or less	132–157	158 or more
5′2″	135 or less	136–163	164 or more
5′3″	140 or less	141–168	169 or more
5′4″	144 or less	145–173	174 or more
5′5″	149 or less	150–179	180 or more
5′6″	154 or less	155–185	186 or more
5′7″	158 or less	159–190	191 or more
5′8″	163 or less	164–196	197 or more
5′9″	168 or less	169–202	203 or more
5′10″	173 or less	174–208	209 or more
5′11″	178 or less	179–214	215 or more
6′0″	183 or less	184–220	221 or more
6′1″	188 or less	189–226	227 or more
6′2″	193 or less	194–232	233 or more
6′3″	199 or less	200–239	240 or more
6′4″	204 or less	205–245	246 or more

Many organizations, such as the Centers for Disease Control and Prevention, post simple BMI calculators on their Web sites.

See http://www.cdc.gov/nccdphp/dnpa/bmi/calc-bmi.htm for more information.

Adults can also find their approximate BMI using the table to the left.

There are a few important considerations to note. One is that BMI can be misleading for very muscular people, as well as women who are pregnant or lactating. BMI may overestimate body fat in those cases. Conversely, it may underestimate body fat in older people who have lost muscle mass.

How Is BMI Measured in Children and Teens?

BMI is calculated differently for children than for adults. Weight categories are described differently, too. Because boys and girls grow at different rates, BMI for children is age- and gender-specific, and must be calculated for each child on an individual basis.

Clinical growth charts are used to calculate BMI in children and adolescents.

Visit the Centers for Disease Control and Prevention Web site at http://www.cdc.gov/growthcharts/ for a complete set of growth charts used to calculate BMI in children.

Children and teens whose BMI-for-age is:

- In the 95th percentile or higher are considered overweight.
- Between the 85th and less than the 95th percentile are considered at risk for overweight.
- Between the 5th and less than the 85th percentile are considered normal weight.
- Below the 5th percentile are considered underweight.

It's important to remember that BMI is a tool. It does not always accurately describe a child's (or an adult's) weight classification, so a doctor or healthcare professional should make the final determination.

Appendix B: Resources

The Robert Wood Johnson Foundation

The Robert Wood Johnson Foundation (RWJF) is the nation's largest philanthropy devoted exclusively to health and health care. The Foundation is committed to tackling one of today's most pressing threats to the health of our children and families — childhood obesity.

For more information on the work of the Foundation and its grantees, or to sign up for RWJF's news digest on childhood obesity, please visit http://www.rwjf.org.

American Heart Association

Since 1924 the American Heart Association, a voluntary health agency, has helped protect people of all ages and ethnicities from the ravages of heart disease and stroke. These diseases, the nation's No. 1 and No. 3 killers, claim more than 925,000 American lives a year.

The association invested more than $439 million in fiscal year 2003–04 for research, professional and public education, and community service programs to help people throughout the United States live healthier, longer lives.

To learn more, donate or volunteer, visit http://www.americanheart.org.

American Heart Association Scientific Statements

Children

- *American Heart Association Guidelines for Primary Prevention of Atherosclerotic Cardiovascular Disease Beginning in Childhood*
  (Circulation 2003;107:1562)
- *Cardiovascular Health in Childhood*
  (Circulation 2002;106:143)
- *Cardiovascular Health Promotion in Schools*
  (Circulation 2004;110:2266)
- *Obesity, Insulin Resistance, Diabetes, and Cardiovascular Risk in Children*
  (Circulation 2003;107:1448)
- *Overweight in Children and Adolescents*
  (Circulation 2005;111:1999–2012)

General Public

- *American Heart Association Dietary Guidelines Revision 2000*
  (Circulation 2000;102:2284)

- *American Heart Association Guide for Improving Cardiovascular Health at the Community Level*
  (Circulation 2003;107:645)
- *American Heart Association Guidelines for Primary Prevention of Cardiovascular Disease and Stroke: 2002 Update*
  (Circulation 2002;106:388)
- *Exercise and Physical Activity in the Prevention and Treatment of Atherosclerotic Cardiovascular Disease*
  (Circulation 2003;107:3109)
- *Obesity and Heart Disease*
  (Circulation 1997;96:3248)
- *Circulation,* special obesity-themed issue, April 19, 2005.

Programs

Adult Education Programs

The Cholesterol Low Down
A program that offers strategies for modifying diet and lifestyle to reduce the risk of heart disease and stroke associated with high cholesterol.

http://www.americanheart.org/cld

Choose To Move
A free, 12-week behavior modification program to help women build more physical activity into their busy day.

http://www.americanheart.org/choosetomove

deliciousdecisions.org
A feature of the American Heart Association Web site that focuses on healthy eating with recipes and nutritional facts.

http://www.deliciousdecisions.org

Go Red For Women
A nationwide movement mobilizing women to reduce their risk of heart disease. Participants are encouraged to wear red on the first Friday in February to raise awareness about women's No. 1 killer. Has printed materials and a Web site.

http://www.americanheart.org/goredforwomen.

The Heart of Diabetes/El corazón y la diabetes
A national education and awareness campaign targeting people who have or are at risk for type 2 diabetes. Includes a supporting Web site in English and Spanish.

http://www.americanheart.org/diabetes

justmove.org
A feature of the American Heart Association Web site that focuses on fitness with a variety of personalized tools.

http://www.justmove.org

Search Your Heart (also available in Spanish)
A faith-based heart disease and stroke educational program to help African Americans, Hispanics/Latinos and Asians reduce their risk of heart disease and stroke.

http://www.americanheart.org/presenter.jhtml?identifier=3008521

Children's Education Programs

HeartPower!
An educational program for students that promotes healthy choices for lifelong cardiovascular health.

http://www.americanheart.org/presenter.jhtml?identifier=3003357

Hoops For Heart
An educational and fund-raising program in which middle school students perform basketball skills. Funds raised support research and educational programs to reduce disability and death from heart disease and stroke.

http://www.americanheart.org/presenter.jhtml?identifier=2360

Jump Rope For Heart
An educational and fund-raising program for elementary school students that promotes physical activity. Funds raised support research and educational programs to reduce disability and death from heart disease and stroke.

http://www.americanheart.org/presenter.jhtml?identifier=2441

Consumer Cookbooks and Programs

American Heart Association Cookbooks and Health Information Books
The library of best-selling American Heart Association cookbooks and guides includes more than a dozen comprehensive cookbooks with more than 3 million copies in print today. The newest book, *American Heart Association No-Fad Diet*, will be published in June 2005. Association books are available wherever books are sold.

http://www.americanheart.org/cookbooks

Food Certification Program
This program helps grocery shoppers quickly identify foods low in saturated fat and cholesterol.

http://www.americanheart.org/foodcertification

Partner Program

Everyday Choices for a Healthier Life
A preventative health alliance with the American Cancer Society and American Diabetes Association to educate consumers and medical professionals about the leading causes of death and disability in the United States: heart disease, cancer, stroke and diabetes. Also discusses the four key steps to take to reduce risk: eat right, don't smoke, get active and see your doctor. More info: (866) 399-6789.

http://www.everydaychoices.org

A Nation at Risk:
Obesity in the United States
A Statistical Sourcebook

The Robert Wood Johnson Foundation is the nation's largest philanthropy devoted exclusively to health and health care. For more information visit www.rwjf.org.

American Stroke Association®

A Division of American Heart Association

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