



with Chef Charles Michael

Author
Nutrition Consultant
Culinary Chef
Healthy Cooking Guru

Live from The Eat Right Studio

Key Demographics, Facts & Statistics on Obesity

Adult Obesity in United States

- More than two-thirds of adults in the United States are overweight or obese.
- More than one-third of U.S. adults (35.7%) are obese.
- By 2020 it estimate that more than 75% of American will be overweight or obese
- By 2030 its projected that 13 states will have a obesity rate over 60% and the average obesity rate might top 50%
- By 2030 the CDC estimates 86% of Americans overweight or obese.
- Catastrophic on health care estimate for 2030 is \$1 of \$6 dollars or \$956 billion a year to treat obesity.

Child Obesity in United States

- One third of children and adolescents are overweight or obese.
- Approximately 17% (or 12.5 million) of children and adolescents aged 2—19 years are obese
- Its estimated that more than 1 in 5 young people will be obese by 2020

Obesity Worldwide

- Worldwide obesity has nearly doubled since 1980.
- In 2008, more than 1.4 billion adults, 20 and older, were overweight. Of these over 200 million men and nearly 300 million women were obese.
- 35% of adults aged 20 and over were overweight in 2008, and 11% were obese.
- 65% of the world's population lives in countries where overweight and obesity kills more people than underweight.
- More than 40 million children under the age of five were overweight in 2011.

Select United States Obesity Facts

Obesity, Race & Sex

- By 2020 it's estimated that 80% of men will be overweight or obese.
- By 2020 it's estimated that 70% of women will be overweight or obese.

Table 3. Prevalence of obesity among U.S. adults aged 20 and over, by sex and race and ethnicity, for selected years 1988–1994 through 2009–2010

Characteristic	NHANES III 1988-1994	NHANES 1999-2000	NHANES 2001-2002	NHANES 2003-2004	NHANES 2005-2006	NHANES 2007-2008	NHANES 2009-2010
Men							
Non-Hispanic white	20.3	27.3	29.0	31.1	33.0	31.9	36.2
Non-Hispanic black	21.1	27.9	27.9	34.0	37.0	37.2	38.8
Men, Mexican American	23.9	28.9	25.9	31.6	27.0	35.8	36.6
Women							
Non-Hispanic white	22.9	30.1	31.2	30.2	32.9	33.0	32.2
Non-Hispanic black	38.4	49.5	48.2	53.9	52.9	49.4	58.5
Mexican American	35.4	39.5	37.0	42.3	42.1	45.1	44.9

NOTES: NHANES is National Health and Nutrition Examination Survey. Data are age adjusted by the direct method to the 2000 U.S. Census population using age groups 20–39, 40–59, and 60 and over. Obesity is body mass index greater than or equal to 30.0 kg/m². Pregnant females were excluded from the analysis.

SOURCE: CDC/NCHS, NHANES.

Obesity and Socioeconomic Status

- Among non-Hispanic black and Mexican-American men, those with higher incomes are more likely to be obese than those with low income.
- Higher income women are less likely to be obese than low-income women.
- There is no significant relationship between obesity and education among men. Among women, however, there is a trend—those with college degrees are less likely to be obese compared with less educated women.
- Between 1988–1994 and 2007–2008 the prevalence of obesity increased in adults at all income and education levels.

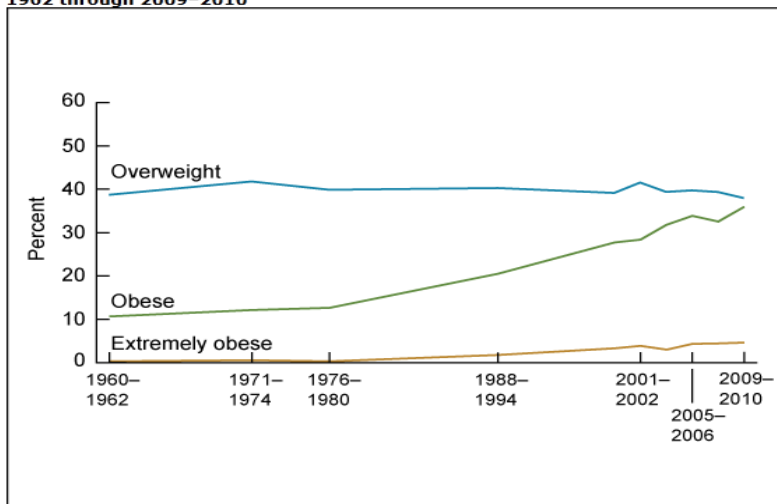
Obesity rates among all children in the United States

- Since 1980, obesity prevalence among children and adolescents has almost tripled.
- There are significant racial and ethnic disparities in obesity prevalence among U.S. children and adolescents. In 2007—2008, Hispanic boys, aged 2 to 19 years, were significantly more likely to be obese than non-Hispanic white boys, and non-Hispanic black girls were significantly more likely to be obese than non-Hispanic white girls.
- Obese children are more likely to have high blood pressure, high cholesterol, and Type 2 diabetes, which are risk factors for cardiovascular disease.
- Obese children are more likely to become obese adults.
- One of seven low-income, preschool-aged children is obese. Nearly one-third of the 3.7 million low-income children aged two–four years surveyed as part of the CDC’s National Health and Nutrition Examination Survey, were obese or overweight, and 541,000 were obese.

Trends of Obesity

Figures

Figure 1. Trends in overweight, obesity, and extreme obesity among men aged 20–74 years: United States, 1960–1962 through 2009–2010



NOTES: Age adjusted by the direct method to the 2000 U.S. Census population using age groups 20–39, 40–59, and 60–74. Overweight is a body mass index (BMI) of 25 kg/m² or greater but less than 30 kg/m²; obesity is a BMI greater than or equal to 30 kg/m²; and extreme obesity is a BMI greater than or equal to 40 kg/m².

Obesity Facts

- Overweight and obesity are the result of “caloric imbalance”—too few calories expended for the amount of calories consumed—and are affected by various genetic, behavioral, and environmental factors.
- Obesity and physical inactivity have been linked to a range of chronic diseases, including high cholesterol and hypertension.
- Obesity-related conditions include heart disease, stroke, Type 2 diabetes and certain types of cancer, some of the leading causes of preventable death.
- In 2008, medical costs associated with obesity were estimated at \$147 billion; the medical costs for people who are obese were \$1,429 higher than those of normal weight.
- Eating a healthy diet, high in fruits and vegetables is associated with a lower body mass index (BMI) and decreased risk for chronic diseases.
- Compared with regularly active people, physically inactive people are twice as likely to develop coronary heart disease.
- Physical Activity - Only 21% of adults meet the federal guidelines for physical activity. Among 9 through 12 graders, only 28% meet the recommendations.
- Healthy Diet – Less than 1% of U.S. adults meet the definition for “Ideal Healthy Diet”; essentially no children meet the goal. Of the 5 components of a healthy diet, reducing sodium and increasing whole grains are the biggest challenges.
- Body Mass Index - The estimated prevalence of overweight and obesity in U.S. adults is 155 million, which represents 68% of this group. Among children, 32% are overweight and obese (24 million children) and 17% are obese (13 million children).

Obesity Ties to Diet Related Chronic Diseases

The CDC states that as much as 80% of heart disease and Type 2 diabetes and as much as 40% of cancer could be avoided by implementing the following three things into your lifestyle: 1) stop smoking, 2) start a moderate exercise program and 3) eat a healthy well balanced diet.

- According to the Trust for American Health if obesity continues on its current course, the number of new cases of Type 2 diabetes, heart disease, stroke, high blood pressure and arthritis could rise 10 times between now and 2020, then double again by 2030.
- If every obese person decreased his or her body mass index by just 1% (2 pounds for 200-pound adult) as many as 2.4 million diabetes cases, 1.7 million cases of heart diseases and stroke and 127,000 cancer cases could be prevented.

Cardiovascular Disease

- One in four Americans has some form of cardiovascular disease.
- From 1999 to 2009, the cardiovascular disease (CVD) death rate declined by 33%. However, CVD still takes the lives of more than 2,150 Americans each day, an average of 1 death every 40 seconds.
- One in three adults has high blood pressure, and high blood pressure is the leading cause of stroke. About a third of hypertension may be attributable to obesity, and the figure may be as high as 60 percent in men under 45.
- Cholesterol - An estimated 32 million adults have total serum cholesterol levels ≥ 240 mg/dL, with a prevalence of 14%.
- Hypertension - An estimated 78 million U.S. adults are hypertensive. About 82% are aware of their condition and 75% are using antihypertensive medication, but only 53% of those have their condition controlled.

Diabetes

- Diabetes - An estimated 20 million adults have physician-diagnosed diabetes. An additional 8 million adults have undiagnosed diabetes and about 87 million adults have prediabetes.
- \$245 billion: Total costs of diagnosed diabetes in the United States in 2012
- After adjusting for population, age and sex differences, average medical expenditures among people with diagnosed diabetes were 2.3 times higher than what expenditures would be in the absence of diabetes.

Diet Related Cancers

- Obesity is associated with increased risks of cancers of the esophagus, breast (postmenopausal), endometrium (the lining of the uterus), colon and rectum, kidney, pancreas, thyroid, gallbladder, and possibly other cancer types.
- In the United States, about 34,000 new cases of cancer in men (4 percent) and 50,500 in women (7 percent) were due to obesity. The percentage of cases attributed to obesity varied widely for different cancer types but was as high as 40 percent for some cancers, particularly endometrial cancer and esophageal adenocarcinoma.
- A projection of the future health and economic burden of obesity in 2030 estimated that continuation of existing trends in obesity will lead to about 500,000 additional cases of

cancer in the United States by 2030. This analysis also found that if every adult reduced their BMI by 1 percent, which would be equivalent to a weight loss of roughly 1 kg (or 2.2 lbs) for an adult of average weight, this would prevent the increase in the number of cancer cases and actually result in the avoidance of about 100,000 new cases of cancer.

Obesity Link to the Increased Diseases Risk Factors

Cardiovascular Disease

- Obesity is defined simply as too much body fat. Your body is made up of water, fat, protein, carbohydrate and various vitamins and minerals. If you have too much fat — especially around your waist — you're at higher risk for health problems, including high blood pressure, high blood cholesterol, diabetes, heart disease and stroke.
- Obesity raises blood cholesterol and triglyceride levels.
- Obesity lowers HDL "good" cholesterol. HDL cholesterol is linked with lower heart disease and stroke risk, so reducing it tends to raise the risk.
- Obesity raises blood pressure levels.
- Obesity can induce diabetes. In some people, diabetes makes these other risk factors much worse. The danger of heart attack is especially high for these people.
- Obesity has a significant impact on our metabolism.

Diabetes

- Of the people diagnosed with Type II diabetes, about 80 to 90 percent are also diagnosed as obese. This fact provides an interesting clue to the link between diabetes and obesity. Understanding what causes the disease will hopefully allow us to prevent diabetes in the future.
- Being overweight places extra stress on your body in a variety of ways, including your body's ability to maintain proper blood glucose levels. In fact, being overweight can cause your body to become resistant to insulin. If you already have diabetes, this means you will need to take even more insulin to get sugar into your cells. And if you don't have diabetes, the prolonged effects of the insulin resistance can eventually cause you to develop the disease.
- The number of diabetes cases among American adults jumped by a third during the 1990s, and more increases are expected. This rapid increase in diabetes is due to the growing prevalence of obesity and extra weight in the United States population.

Cancer

- Fat tissue produces excess amounts of estrogen, high levels of which have been associated with the risk of breast, endometrial, and some other cancers.
- Obese people often have increased levels of insulin and insulin-like growth factor-1 (IGF-1) in their blood (a condition known as hyperinsulinemia or insulin resistance), which may promote the development of certain tumors.
- Fat cells produce hormones, called adipokines, that may stimulate or inhibit cell growth. For example, leptin, which is more abundant in obese people, seems to promote cell proliferation, whereas adiponectin, which is less abundant in obese people, may have antiproliferative effects.

- Fat cells may also have direct and indirect effects on other tumor growth regulators, including mammalian target of rapamycin (mTOR) and AMP-activated protein kinase.
- Obese people often have chronic low-level, or “subacute,” inflammation, which has been associated with increased cancer risk.

References

US Statistics & Genreal Facts - CDC

World Statistics - WHO

Cardio Vascular Disease Facts - American Heart Association

Diabetes Facts - American Diabetes Association

Cancer Facts - American Cancer Association