



Causes of Obesity

OBESITY is a complex chronic disease in which abnormal or excessive accumulation of body fat impairs health. Adult obesity rates have more than doubled since the 1980s — in the U.S. today, obesity affects over 1 in 3 adults and almost 1 in 5 youth.¹ Obesity and its related complications are major drivers of rising healthcare costs, diminished health-related quality of life, and a decline in U.S. life expectancy. This fact sheet is part of a series designed to provide basic information about the science of obesity and current strategies to address it.

What Types of Factors Contribute to Obesity?

KEY TAKEAWAYS

- Obesity is a complex disease influenced by behavioral, economic, environmental, and genetic factors.
- The modern environment makes obesity more likely—foods high in calories are cheap and prevalent and opportunities for physical activity are decreasing.
- More research is needed to fully understand the complexity of obesity. There are likely more factors influencing obesity that scientists have yet to fully discover.

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CDC: *Adult Obesity Causes and Consequences*

Portion Distortion: Interactive Slide Sets



BEHAVIORAL FACTORS

- Food choices and physical activity both affect a person's weight and health. National guidelines recommend:²
 - A diet high in whole grains, fruits, vegetables, lean protein, low-fat and fat-free dairy products, along with adequate hydration
 - 150 minutes of moderate intensity physical activity or 75 minutes of vigorous intensity physical activity per week for adults and 60 minutes of physical activity a day for children 6 and older³



ECONOMIC FACTORS

- Food prices have changed in the last thirty years, influencing the way Americans shop for groceries.⁴
 - The overall price of food fell 14% between 1980 and 2000, which may have contributed to increased food consumption
 - The relative price of calorie-dense foods decreased between 1980 and 2000, while the relative price of fruits and vegetables rose
- Many Americans live in areas where unhealthy food is more affordable and accessible than healthy options.
 - "Food swamps" where unhealthy options abound have been indicated as contributing to obesity⁵
 - Areas where ultra-processed foods are more readily available than unprocessed or minimally processed foods may put their residents at risk of obesity⁶



ENVIRONMENTAL FACTORS

- The safety and infrastructure of communities can affect residents' access to opportunities for physical activity.⁷
 - Active transportation, such as walking, biking, and use of public transportation, increases physical activity, but is less common in communities without sidewalks, adequate lighting, or bike lanes
 - Active recreation sites, such as parks, can provide residents with opportunities for physical activity, but many neighborhoods lack these facilities or community violence prevents their use

Researchers have found that portion sizes are now 2 to 5 times larger than they were a few decades ago.⁸

Studies have repeatedly shown that those who are given larger portion sizes consume greater amounts of food than those who are given smaller portions, even though participants in both groups report feeling full and are generally unaware of the amount that they've eaten.⁹



A traditional portion of spaghetti in the 1980s included **1 cup** of pasta and contained **500 calories**.¹⁰



A traditional portion of popcorn in the 1980s included **5 cups** of popcorn and contained **270 calories**.¹⁰



A portion of spaghetti in the 2000s included **2 cups** of pasta and contained **1,025 calories**.¹⁰



A portion of popcorn in the 2000s included **11 cups** of popcorn and contained **630 calories**.¹⁰



GENETIC FACTORS

- By studying twins, adopted children, and families, researchers have been able to identify a genetic component of obesity. Individuals with a genetic predisposition to obesity may be more susceptible to the environmental factors mentioned above.¹¹
 - Obesity has been shown to be heritable, although different studies report varying levels of heritability, ranging from as low as 6% for waist/hip ratio to as high as 85% for body mass index
 - Most cases of obesity are caused by a complex interaction between multiple genes and the environment. Monogenic obesity caused by genetic mutation is rare



OTHER FACTORS

- Obesity is a complex disease that is influenced by many different factors, both modifiable and non-modifiable. For example, Adverse Childhood Experiences (ACEs), including abuse, parental incarceration and divorce, are strongly associated with obesity.^{12,13}
- More research is needed for scientists and medical professionals to fully understand all the factors that contribute to obesity.

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