

Understanding Obesity



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Obesity affects both adults and youths in the United States. More than one in three adults and one in five youths have obesity. Experts define being overweight or having obesity as increased body fat that may play a role in health risk.

Why does obesity matter?

When people have more body fat, along with other risk factors, this can put them at a higher risk of poor health outcomes. Research shows that too much fat in and around the stomach and organs have the most harmful effect on overall health. Increased body fat may lead to high amounts of fat and cholesterol in the blood, high blood pressure, and high blood sugar. Recent research also shows that obesity increases inflammation throughout the body which can raise the risk for other poor health outcomes.

These effects put people with obesity at a higher risk for Type 2 diabetes, heart disease, certain cancers, and sleep apnea. People with obesity may also have other health-related issues, such as joint pain and mobility issues, which can affect quality of life.

Obesity can affect people of all ages, and trends show higher rates of obesity among youths than ever before. Having obesity as a child is a risk factor for having obesity as an adult, meaning some will live with increased health risks for longer periods of their lives.

Obesity also costs Americans a lot of money. Experts estimate that obesity costs Americans and the U.S. health-care system more than \$260 billion each year, which is almost one-third of the annual U.S. Department of Defense budget. These health-care costs are either directly or indirectly tied to obesity.

Direct costs may include:

- Medical care
- Surgeries
- Tests
- Labs
- Medications

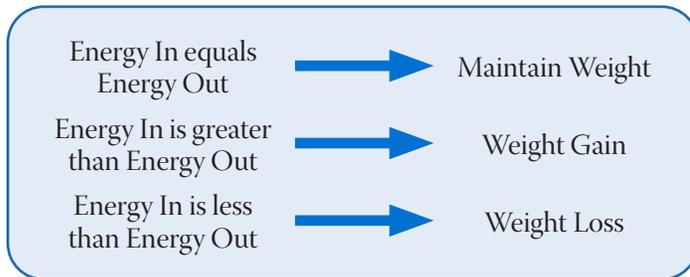
Indirect costs may include:

- Lost work
- Lower wages
- Costs of insurance

What contributes to obesity in the body?

To maintain body weight, the amount of energy you take in must equal the amount of energy that you burn. *Energy in* includes all the calories and energy we get from eating and drinking. *Energy out* is the amount of energy and calories we use for bodily functions and physical activity.

When a person takes in more energy or calories than they use, the body stores extra energy as fat. Overeating high-calorie foods and having less-active lifestyles mean youths and adults are more likely to be overweight or have obesity.



What other factors contribute to obesity?

Nutritious food choices and physical activity help people maintain their weight. However, there are other factors that can affect body weight. These include having access to healthy foods in our homes and communities, being able to prepare and cook these foods, safe opportunities to live an active lifestyle, and the physical ability to move our bodies regularly. For example, the Centers for Disease Control and Prevention (CDC) reports that two out of five households do not live within one mile of a store selling nutritious options, and this number is much higher in rural states such as Kentucky. Limited food access affects how often someone goes to the grocery store and the types of foods people buy and prepare in their homes.

There are other factors that may affect body weight and several of these cannot be controlled. Individuals of certain races, ethnicities, and backgrounds are more likely to have obesity than others, including those of lower incomes, those in rural communities, and Hispanic and non-Hispanic Black individuals. These individuals may experience social and economic barriers that limit their ability to make healthy choices. Other factors that cannot be controlled include family history, age, some health conditions, and side effects of certain required medications.

Factors that people can control include:

- Smoking and drinking alcohol
- Food and beverage choices
- Sitting for long periods of time
- Limited physical activity
- Sleep patterns

How is obesity measured?

For both children and adults, the most common measure used to determine if someone is affected by being overweight or having obesity is body mass index (BMI). The BMI scale is a low-cost screening tool that health-care providers can use with individuals and to look at trends across larger populations. Like most tools, it is not perfect and should be used correctly.

BMI can provide an estimate of one's body fat, but it is not a direct measure of body fat. At an individual level, BMI should not be used as a metric of overall health. For example, children are growing and body weight changes from year to year; doctors use other factors such as age and sex to decide if a child or teen is at a healthy weight.

BMI-for-age for Children and Teens (Ages 2-19)

Although BMI-for-age does not directly measure body fat, it may be a helpful tool to estimate body fat based on height, weight, age, and sex. Because body weight is changing constantly in childhood, it is important to use all these factors when estimating body fat so that comparisons can be made to children of the same age and sex instead of to all children and teens. Parents and caregivers may learn about their child's BMI-for-age at well-child visits and check-ups.



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BMI for Adults

Adults 20 years old and older can use BMI as a tool to estimate body fat based on height and weight. For adults, age and sex are not needed to estimate body fat content using BMI and only one scale is used for both men and women of all ages.

A person who weighs 170 pounds and is 5 foot 6 inches tall has a BMI of 27.4. This person would be considered overweight with this weight and height (Table 1).

Table 1. BMI for Adults.

Underweight	Below 18.5
Healthy Weight	18.5-24.9
Overweight	25.0-29.9
Obesity	30.0-39.9
Extreme Obesity	40.0 and above

All you need to know is your current body weight in pounds and your height in inches to determine your own BMI. Use the online adult BMI calculator available on the [CDC website](#) or use the following equation:

$$\text{BMI} = 703 \times \frac{\text{Weight (in pounds)}}{\text{Height}^2 \text{ (in inches)}}$$

Even if two adults have the same BMI, their body fat percentages may be different. BMI does not consider muscle or bone mass. Generally, at the same BMI:

- Women tend to have more body fat than men.
- Body fat may be higher or lower depending on race or ethnic group.
- Older adults have more body fat than younger adults.
- Athletes have less body fat than non-athletes.

Table 2. Waist Circumferences that Increase Health Risk.

	General U.S. Criteria	European Ancestry	Asian Ancestry
Females	Greater than 35 inches	Greater than 31.5 inches	Greater than 31.5 inches
Males	Greater than 40 inches	Greater than 37 inches	Greater than 35.5 inches

Waist Circumference for Adults

Another way to measure adult body fat is to measure waist circumference. When measured along with body weight, waist circumference serves as a good tool for determining health risks linked with increased body fat within the stomach area of males and non-pregnant females. This is useful for identifying those at an increased risk for Type 2 diabetes and heart disease. Risk may vary by race and ethnicity, with waist circumference being a better predictor of disease risk for certain groups, such as those of Asian ancestry.

Remember, BMI and waist circumference are tools we have to determine risk. They are not used to diagnose any health issues and do not determine the health of a person. You can always ask your health-care provider about your BMI or waist circumference. To calculate your own BMI or follow step-by-step directions for measuring your own waist circumference visit this website: <https://www.cdc.gov/healthyweight/assessing/index.html>.

In conclusion, obesity alone is not a sufficient measure of health status. However, awareness of obesity is important when we think about overall health and well-being.

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