

The Difference between Obesity and Overweight

Many people believe that being obese and overweight are one in the same. Although there is a fine line between the two they are in fact completely different from each other. The definition for being overweight is anyone who has a BMI of 25.0 to 29.9. BMI stands for Body Mass Index which is a measure of someone's weight while taking their height into account. A person's body mass index is usually measured by taking their body weight in kilograms and dividing it by the square of their height in meters. The formula would be $BMI = \text{kg} / \text{m}^2$. You could also calculate the formula in pounds and inches: $BMI = \text{lb} \times 703 / \text{in}^2$. For example, a man who weighs 250 pounds and is 5ft. 2in. tall would calculate his BMI like this:

$$BMI = \text{lb} \times 703 / \text{in}^2$$

$$BMI = 250 \times 703 / [(5 \times 12) + 2]^2$$

$$BMI = 175,750 / 622 \text{ or } 175,750 / 3,844$$

$$BMI = 45.7 \text{ or } 45.7 \text{ lbs} / \text{in}^2$$

BMI Classification

Less than 18.5 = Underweight

18.5-24.9 = Normal Weight

25.0-29.9 = Overweight

30.0 & Over = Obese

This example was calculated in pounds per square inch; however, the preferred unit of measurement is in kilograms and meters. This gives scientists a more accurate idea of the percentage of fat in a person's body.

Another way to determine obesity is to calculate body fat percentage. The formula for body fat percentage is:

$$\text{Body fat \%} = 1.2 \times \text{BMI} + 0.23 \times \text{age} - 5.4 - 10.8 \times \text{gender}$$

Gender: 1=male, 0=female

Based on this formula, men who have >25% body fat and women who have >33% body fat are considered obese. The body fat percentage formula takes into account that women tend to have 10% more body fat than men. The formula also accounts for the fact that body fat percentage increases as age increases, even when the person's weight remains the same. This formula is not the most accurate but it does provide an estimated idea of what percent body fat a person has.

Obesity is very similar to being overweight. To be considered obese, a person must have a BMI of 30.0 or greater. Even though there is this slight technical difference between the terms overweight and obesity the two are often interchangeable. The reason why it is more **dangerous to be obese than it is to be overweight** is because of the amount of fat stored in the body. Those who are obese have a higher BMI than those who are overweight. In other words, those who are obese have more body fat per square inch and are more susceptible to illnesses such as type 2 diabetes, strokes, high blood pressure, high cholesterol, sleep apnea and many others. However, it is not good to be in either condition. The greater your BMI the greater your risk is for future illnesses and health complications related to obesity. It is very important to visit your doctor regularly and closely monitor your Body Mass Index.