



How to Measure Body Fat: BMI vs Body Fat Percentage

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If you are trying to lose weight, there are several ways to measure your progress. In addition to weighing yourself on the scale, your healthcare provider may measure your body fat percentage or body mass index (BMI). But which measurement is the best one to use? The answer depends on a number of factors.

What Is Body Mass Index?

BMI is a number that is used to evaluate your body size. It is not a percentage of body fat, but rather a general score that helps determine if your weight is healthy. The number is calculated using your weight and height. If you are carrying too much weight for your height, the excess weight is assumed to be fat.

Although some experts have suggested BMI is not always an accurate measurement, for most people this is the easiest and least expensive way to determine if their body fat is too high to maintain good health. In general, people with a BMI of 25 or higher have a higher risk of heart disease, high blood pressure, diabetes and other chronic diseases.

How to Measure and Evaluate Your BMI

To figure out your own BMI, you'll need to know your weight and height. Use a mathematical formula to get the index number or use an online calculator to get an instant result.

Once you have your BMI, use this chart to evaluate the result.

•Underweight = less than 18.5

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- Normal weight = 18.5-24.9
- Overweight = 25-29.9
- Obese (Grade I) = 30-34.9
- Obese (Grade II) = 35-39.9
- Obese (Grade III) = > 40

If your BMI falls into the overweight or obese categories and you feel that your weight is healthy, you may want to consider other factors. Bodybuilders and athletes who participate in vigorous weight training activities may carry excess weight that is muscle, not fat. Your diet, ethnicity and family history may also impact your BMI. But in most cases, BMI will provide a good estimate of whether or not your weight is healthy.

What Is Body Fat Percentage?

Body fat percentage is a measurement of the fat on your body as opposed to muscle, bone and other lean body mass. For many people, this measurement of body composition is a better indicator of weight loss success than the number on the scale. Healthy body fat percentages are different for men and women. Body fat can be measured using different techniques.

How to Measure Body Fat Percentage

•**Skin calipers.** The least expensive way of measuring body fat is by using skinfold calipers. The tool lightly pinches the skin in three separate areas on the body. In men, the chest, abdomen and thigh are measured. In women, the triceps, hip and thigh are measured. Based on the measurements, a percentage of total body fat can be estimated.

•**Pros:** The test is inexpensive and is widely available in health clubs, fitness centers and often in a physician's office. It is an easy, comfortable test to perform and takes only minutes to complete.

•**Cons:** The accuracy of the result depends on the skill of the tester. If multiple tests are being performed to measure the progress of your weight-loss program, be sure that the same person is conducting the test each time.

•**Underwater or hydrostatic weighing.** Until recently, underwater weighing was considered the gold standard for measuring body fat percent. During the test, a patient is submerged in a large tank of water. The amount of displaced water is measured. Based on that number, body fat percent can be estimated.

•Pros: This test is generally performed in a laboratory setting by a highly skilled technician. The results are likely to be very accurate.

•Cons: This is an expensive and complicated test to perform. It is only available at limited locations, such as universities, some hospitals and laboratories.

•**BodPod.** This egg-shaped pod is becoming more widely accepted in clinical settings and has been used to test body fat in published studies. The BodPod works in the same way that underwater weighing works, but air displacement is measured inside the pod instead of water displacement.

•Pros: At \$40-\$100 per test, BodPod is generally less expensive than hydrostatic testing. It is also more comfortable to perform because it doesn't require underwater submersion.

•Cons: The BodPod is not available in all areas.

•**DeXA scan.** Dual energy X-ray absorptiometry (DXA), or DeXA scanning, is often available in medical settings and is considered to be highly accurate. The test is also used to measure bone density. Like most imaging procedures, it exposes the patient to very low doses of radiation

•Pros: DeXA scanning is expensive, but is sometimes covered by insurance.

•Cons: Some older DeXA scanners are less able to accommodate patients who weigh more than 300 pounds.

•**Bioelectrical impedance.** The most common bioelectrical impedance analysis (BIA) device is the body fat scale. BIA devices can be found in fitness clubs, health fairs and at the doctor's office. During the test, a very low level electrical current travels through the body to measure lean body tissue and body fat. •Pros: BIA is very easy to use and provides instant results.

•Cons: Your hydration level, the timing of your last meal and skin temperature can affect BIA results.



The Best Measurement for You

For most people who are beginning a weight-loss plan, BMI will provide the best measurement. Body mass index is easy to measure, requires no special equipment and, in most cases, is an accurate predictor of whether or not your weight is likely to cause health problems.

There are certainly some experts who feel that focusing on body composition and body fat percent is more important. But, for many, it is more important to have an easy method for evaluating progress. For example, a patient who falls into the obese (Grade III) category may set a reasonable goal of reaching the obese (Grade II) BMI range. Having an easy evaluation method will help him or her to see the index number move into a healthier category and may inspire the confidence needed for additional weight loss.

If you find that your BMI stays the same despite your best efforts, you may want to choose a different weight-loss plan or speak to your physician about medications that may help you reach your goal. Once you've lost the weight, remember to evaluate your BMI occasionally to make sure that your weight remains healthy.

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