Live Your Best Life!

Body fat testing has been around for a very long time. In the world of sport medicine it has a very complex meaning. It is used to assess a baseline for weight loss progression for someone who is obese or it can also be used to guide a competitive athlete to achieve peak performance. There are numerous testing procedures for assessing body fat. They range from the simplicity of a tape measure to complex high-tech devices. A body fat test measures the amount of fat relative to total body weight. For example, if you have 25% body fat and you weigh 130lbs, 32.5 lbs of your total weight is comprised of body fat.

Testing Devices and Techniques

In clinical practices, underwater weighing and energy x-ray absorptiometry are the gold standards of body fat testing methods because they have been scientifically validated. These options however, are not only expensive but also very time consuming. The testing procedures available to the general population are more convenient and less costly but they are not always reliable or a true measure of what you are asking for.

Waist-to-hip-ratio

This measures general fat distribution. The waist measurement is divided by the hip measurement. The closer the score is to one the greater amount of fat around the waistline and the more cause for alarm. However this score is really only used when we know that a person is over fat. On its own it can send out the wrong message. For example a young woman who does not have an hour glass figure may score close to one yet be very lean at the same time, therefore, sending the wrong message.

Skin-fold Measures

Callipers are used to measure fat at one or more sites on the body. This technique requires a great deal of practise for precise results, so recruit an experienced tester. As well, several equations are used for calliper testing. It is important to always use the same tester and the same equation. When a magazine reports an ideal body fat of 15%, that amount is based on one specific test and equation. The test your trainer uses may have an ideal body fat that is higher or lower. Beware of skin fold tests that only measure one or two sites. The more sites measured the more accurate the results for overall fat. The Canadian Standardized Test of Fitness measures many sites and gives a total amount. This is then compared to a table of the Canadian population. A high score will place you in a risk category. With an accurate tester, these results can come close to clinical tests.

Bioelectrical Impedance

A very quick device (and often used in fitness centres) measures the body's resistance to a low-level electrical charge. A person's hydration status can alter these results as the resistance level relates to body water content. There are no national standards and each company has their own formula, so it is difficult to compare one test with another unless the same unit is used.

Near-infrared interactance

This newest device on the market has no national standards; however it is portable and quick to use. A fiber-optic probe measures tissue composition. You will often find these devices in health fairs and mall displays.

Body Mass Index

This technique is often used to assess over fatness by using height and weight, however it is insensitive to the quality of the weight. Someone who is very muscular may score heavy for their height but not be over fat. On its own this index can give the wrong message.

Having the numerical percentage of body fat is really irrelevant, what is important is seeing total body fat drop on a retest. For the average person, watching the progress of your belt buckle or monitoring how a pair of snug pants fit will give you the same results as body fat testing if you are actively pursuing a weight loss goal. Remember to focus on activity and diet habits and leave the percentages to the bookies.

Liz Sage, BPE, PFLC
Is a Health and Lifestyle Specialist and freelance writer
@ Team Fitness Personal Training & Education
teamfitness@shaw.ca
250.762.4957