

What Is Bioelectrical Impedance Analysis?

Bioelectrical Impedance Analysis (BIA) is a method of measuring body fat percent by sending a low-level, safe, electrical current through the body. The current travels at a different rate through the various body tissues, which then allows a calculation of fat mass and fat-free mass. This feature is common in many of today's at-home digital scales.

The current passes easily through muscle tissue (which contains a large amount of fluid), but it travels slowly as it passes through fat tissue. The resistance encountered as the current hits the fat tissue is called **bioelectrical impedance**.

With the addition of a person's height, gender and weight measurements, the scale can then compute the body fat percentage.

There are a variety of BIA devices available, and all use the same basic principles to determine body fat. Some popular brands include Omron and Tanita.

Are BIA Measurements of Body Fat Accurate?

While the readings can be affected by hydration levels, food intake, skin temperature, and other factors, you will obtain the best results if you follow the directions and take the reading under similar conditions each time.

