

Body Composition Testing

Bioimpedance analysis (BIA) is a reliable method of measuring body composition, including percentage of body fat and lean body mass. Measurements are taken with a bioimpedance analyzer, which uses electrodes similar to EKG electrodes. The machine passes a harmless, ultra-low level electrical current through the body. Lean tissue, which is over 70% water, is a good conductor of electrical current. Fatty tissue-low in water, is not. Thus, the resistance to the flow of electrical current measured by the analyzer can be used to calculate body composition.

Participants will need to remove their right shoe and sock or stocking. The electrodes are placed on the right hand and foot while the individual is lying down on an exam table. This whole procedure takes only a few minutes and a computer prints out the results. Optimal body fat ranges from 12%-25% for woman, and 5%-20% for men.

Over 100 independent studies, conducted by researchers over the past 20 years, have demonstrated that biompedance analysis can provide an accurate and clinically useful assessment of body composition. However, for the most accurate results, the following guidelines should be followed:

1. Do not eat for 4 hours prior to testing
2. Do no exercise for 12 hours prior to testing
3. Do no consume alcohol for 24 hours prior to testing
4. Drink at least 1 quart of water one hour before your test
(you may void as needed)
5. Do not drink caffeine the day of your test