

relationship of the body to electrical current is complex. Most tissues in the body resist electricity while some tissues react, such as body water. The cell membranes even “hold” the electrical charge for a short time. For example, healthy cell membranes can contribute to a higher reactance reading while fat tissues are much less conductive. Long, thin fibers of muscle tissues in arms and legs are more resistive than wider and shorter muscle tissues in the torso area.



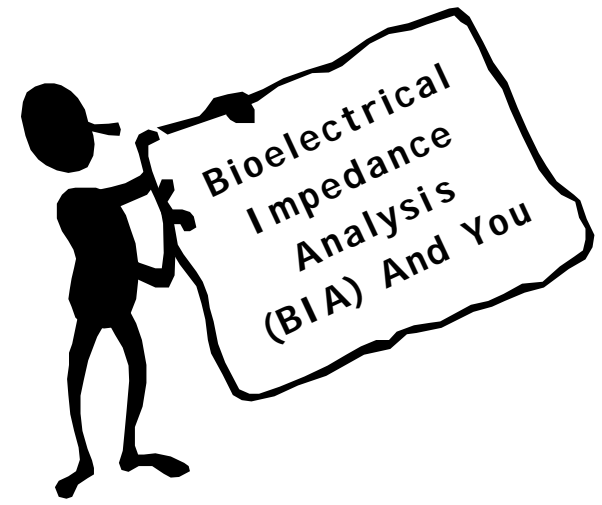
**Who should I share my BIA results with?**

You should share your test results with your doctor and your nutritionist so they can help you to develop a plan to reach your health goals. Treatment recommendations will be based on your BIA results, past and recent medical history, medication adherence, blood test results, dietary history, and drug and alcohol use.

**What is phase angle and is it important?**



Phase angle is a calculation based on resistance and reactance. Some people wrongly think it indicates overall health. Phase angle should not be looked at as an independent value to base judgment about the body's health. The phase angle will change as body cell (active tissue such as muscles and organs) mass, extracellular tissue and body fat levels change.



**This fact sheet answers questions about the use of BIA.**

**What is BIA and how does it work?**

**BIA is a quick way to estimate fat-free tissues and fat in the body. The BIA instrument sends a painless electric current through the body with the use of electrodes. BIA tells you approximately how much muscle and organ tissue a body has and helps to estimate other lean and fat stores in your body.**

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# Why is BIA important?

Body weight may not always indicate good nutritional status. Height, weight, and other body measures along with BIA are the preferred way to assess weight changes. These measures are a better indicator of functional status than body weight. BIA is helpful to follow changes in body composition. It is especially useful to check for or monitor lean tissue wasting in people living with HIV infection. It is recommended that all HIV-positive individuals have a baseline BIA.



## What should I do before a BIA?

Ask your doctor or health care practitioner for a referral to increase the odds of finding a clinician that has experience doing BIAs. It is important to have later BIAs done by the same clinician to track changes in body composition more accurately. At least eight hours before the BIA do not participate in any activity that would greatly change the amount of fluid in your

body. This includes:

- taking diuretics or supplements that act like caffeine and increase fluid loss
- heavy exercise that causes excessive sweating
- drinking a lot of beverages with caffeine



You should also avoid applying any lotion, oil or petroleum jelly on your hands, wrists, feet, or ankles before your BIA.

## What information is useful to the person performing the test?

Tell the person performing the BIA if you have:

- excessive urination, diarrhea or have been vomiting;
- been sweating a lot;
- a pacemaker, automatic implanted cardiac defibrillator, or other metal in your body.

## What will happen when I get a BIA?

- The test will take less than five minutes to perform.
- Your height and weight will be measured without your shoes.
- You will lay on your back on a flat surface with your legs and arms slightly apart from your body so that they don't touch each other.
- Two electrodes will be placed on one of your hands and one of your feet. The electrodes are usually placed on the right hand side of the body.
- If you wear jewelry, it will be removed or moved until it is at least one inch away from the electrodes.



## What are the readings that the BIA takes?

The readings the BIA takes includes how the body resists electrical current (resistance) and reacts to electrical current (reactance). The