

## Medical Clinic Halifax

Medical Clinic Halifax - BIA or Bioimpedance Analysis is a really simple non invasive method utilized in order to help calculate the body's composition. BIA machine accurateness would really depend on various things like the frequency at which measurements are taken and the type of device utilized.

Initially utilized more than thirty years ago, BIA machines calculate the total water content of the body. By passing a very minimal level electrical current through the body the impedance to the flow of the current could be calculated.

There are 2 major concepts which BIA is primarily based upon. Initially, the body has water and conducts electrolytes. Water could be found in the bodies cells, inside the ICF or intracellular fluid in addition to outside of the cells inside the ECF or otherwise known as extracellular fluid. At high frequencies the current passes through both the ECF and ICF while at low frequency, while a current goes through the ECF space it does not penetrate the cell membrane.

The next concept relates to the impedance of a geometrical system related to conductor length or its signal frequency over a cross sectional area. Putting all of the concepts together, a fixed value for the impedance could actually be calculated from a fixed current passing through a person's body. This flow is inversely proportional to the amount of fluid. Total fluid determinations can actually be made specific for extracellular fluid by appropriate choice of signal frequency.