

Medical Clinic Prince George

Medical Clinic Prince George - BIA or likewise known as Bioimpedance Analysis is a straightforward non invasive technique utilized in order to help ascertain the body's composition. BIA machine accurateness will depend on several things like the frequency at which measurements are taken and the particular type of device used.

Originally utilized more than thirty years ago, BIA machines calculate the total water content of an individual's body. By passing a very minimal strength electrical current through the body the impedance to the flow of the current could be calculated.

There are actually 2 main ideas which BIA is based upon. Initially, a person's body contains water and conducts electrolytes. Water can be found within the bodies cells, inside the ICF or otherwise known as intracellular fluid in addition to outside of the cells in the ECF or otherwise known as extracellular fluid. At high-level frequencies the current goes through both the ICF and ECF whereas at low frequency, while a current passes through the ECF space it does not enter the cell membrane.

The next idea 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 ideas together, a fixed value for the impedance can 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.