

Medical Clinic Vancouver

Medical Clinic Vancouver - BIA or also known as Bioimpedance Analysis is a really simple non invasive technique used to help calculate body composition. BIA machine accurateness would really depend on various things like for instance the frequency at which measurements are taken and the type of instrument utilized.

Originally utilized over thirty years ago, BIA machines determine the total water content of the body. By means of passing a very low level electrical current through an individual's body the impedance to the flow of the current can be measured.

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

Secondly, the impedance of a geometrical system is related to conductor length, its cross sectional area and signal frequency. Making use of these concepts, a value for impedance could actually be calculated from a fixed strength current being passed through an individual's body. This current is inversely proportional to the amount of fluid. Total fluid determinations could be made specific for extracellular fluid by appropriate choice of signal frequency.