

Medical Clinic Owen Sound

Medical Clinic Owen Sound - BIA or likewise known as Bioimpedance Analysis is a straightforward non invasive technique utilized to be able to help determine body composition. BIA device accuracy will depend on different factors such as the frequency at which measurements are taken and the choice of machine utilized.

BIA was at first utilized about 30 years ago so as to determine the total water content of an individual's body. This particular method is made by way of passing a very low strength electrical current through a person's body. The impedance to the flow of this current is then calculated.

BIA is based on 2 major concepts. Firstly, the fact that the body has water as well as conducts electrolytes. Water is found within the cells inside a person's body, inside intracellular fluid or ICF and outside the cells in the extracellular fluid or likewise known as ECF. At high frequencies the current passes through both the ICF and ECF while at low-level frequency, while a current passes through the ECF space it does not enter the cell membrane.

Second of all, the impedance of a geometrical system is related to conductor length, its signal frequency and cross sectional area. Making use of these ideas, a value for impedance could be calculated from a fixed strength current going through a person's body. This current is inversely proportional to the quantity of fluid. Total fluid determinations could be made specific for extracellular fluid by appropriate choice of signal frequency.