

Medical Clinic Edmonton

Medical Clinic Edmonton - BIA or otherwise known as Bioimpedance Analysis is a really simple non invasive technique utilized to help determine the body's composition. BIA machine accurateness will really depend on various things like the frequency at which measurements are taken and the particular choice of machine used.

Initially utilized more than thirty years ago, BIA devices determine the total water content of an individual's body. By way of passing a very low strength electrical current through the body the impedance to the flow of the current can be calculated.

BIA is primarily based on two key concepts. Firstly, the truth which a person's body has water and conducts electrolytes. Water is found within the cells in the body, inside intracellular fluid or likewise known as ICF and outside the cells inside the extracellular fluid or also known as ECF. At high-level frequencies the current goes through both the ICF and ECF whereas 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 signal frequency and cross sectional area. Making use of these ideas, a value for impedance can actually be calculated from a fixed strength current going 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.