

## BIOIMPEDANCE ANALYSIS DEFINITIONS

Your BIA test scores represent a summary of your overall level of health.

**IMPEDANCE INDEX** – This is the healing potential of the body and could be referred to as the life force. **A normal value on the average is 1273 or greater.** A higher value is associated with better health and lesser value with poorer health. *“Vitality, Energy, Distance from Death”*

**REACTANCE** – This is an indication of the condition of the immune system. This value also represents the ability of the cell to hold energy. **This value should be at 50-70+.** *“Sickness Susceptibility”*

**PHASE ANGLE** – This represents the density of health of your muscle tissue. An increase in the phase angle indicates healthier muscle tissue. Clinically, **males should be 6-8+ degrees and females 5-7+ degrees.** *“Your Body’s Ability to Recognize ‘Good as Good’”*

**TOTAL BODY WATER (TBW)** – The complete volume of fluids in the body. If you have an increased muscle mass, this % will be higher, or if you have more fat tissue, this will be lower. A male will generally have more TBW than a female. This value is expressed as a % of weight. **This value should be at 60%.** *“Life Span of Your Cells”*

**BODY CELL MASS (BCM)** – The total cellular mass of living cells. This we refer to as the body engine, your muscle and organ tissue. The total cellular components that exchange energy and perform work. This is a most important value to track over time as it indicates whether our body is in a state of anabolic metabolism. Building up healthy tissue, (BCM increasing) or catabolic metabolism, degeneration of lean tissue (BCM decreasing). **Females should have a BCM of 30-40% and males should be 35-45%.** *“Unable to ‘Hold the Zone’ Trait, Leaky Pail”*

**FAT FREE MASS** – The lean tissue of the body. All tissues of the body minus the fat. *“Lean Body Mass, Your Body’s Engine”*

**FAT** – What most people are concerned they have too much of. Yet fat serves a purpose and the optimum range is **14-18% for males, and 22-26% for females.**

**BASAL METABOLISM** – The amount of calories eaten in a day that theoretically will maintain the current body composition in terms of fat free mass and fat percentages. To change ones body composition involves decreases in calorie intake and/or decreasing out or burning of calories with increased regular exercise/physical activities. *“Calories Burned at Rest”*

**INTRA CELLULAR WATER (ICW)** – The potassium based amount of fluid found within the cells of the body. **Usually about 60%** in a healthy adult, but expanded in a baby and contracted in the aged or those who have lost body cell mass (BCM).

**EXTRA CELLULAR WATER (ECW)** – The sodium based volume of fluids found outside of the cells. Healthy cells have high integrity and hold their fluids inside with a higher ICW. As the health decreases the cells leak and the ECW increases. Conversely as health increases the ICW goes up and the ECW goes down. **The ECW is usually 40%** of the TBW.

**EXTRA CELLULAR TISSUE (ECT) – EXTRA CELLULAR MASS (ECM)** – Those tissues and fluids of the body that are found totally outside of the cells. ECT includes the plasma, interstitial and Trans cellular waters of the ECM as well as tissues such as the tendon, fascia, dermis, collagen, elastin, and the skeleton. The ECT provides functions of transport and support.

**CAPACITANCE** – Is somewhat like Phase Angle, whereas weight or body fat does not effect it. It is a measure of cell membrane health in all-living substances and can change dramatically depending on disease or good health. Body builders would have a high parallel capacitance and low resistance, or more cell volume, because they are extremely muscular and fit. A malnourished individual would have a low parallel capacitance. The optimal health range is considered to be 774-1008.

**BODY MASS INDEX (BMI)** – Is the ratio between weight and height. It is a mathematical formula that correlates somewhat with body fat. If your BMI is high, you may have an increased risk of developing certain diseases. Exceptions to risk in high BMI include the following individuals: Athletes with larger muscle content, pregnant or lactating women, growing children, or the frail and elderly population. Minimal risk range for BMI is considered to be 19-24.

**OVER**