

Body Composition

by Shelby Worts BSc, ND

You have made the wise decision to become healthier in 2006. To lower your cholesterol... wear that pair of jeans waiting in the closet... drink more water and eat more vegetables. Fantastic!

Now, how are you going to monitor your progress so that you know all of your changes and sacrifices are indeed making you healthier? Body composition analysis is a simple, non-invasive approach to providing valuable information about what your body is uniquely composed. Individualized data such as fat mass, fat-free mass, hydration status and an indicator for cellular health are a few of the values determined during this analysis.

Why is fat-free mass important? Fat-free mass includes muscle, bone, minerals and other fat-free tissues. Muscle is the major source of protein for functions such as antibody production, wound healing and white blood cell (immune) production during illness. Having a healthy amount of muscle mass will therefore greatly benefit you in times of infirmity, whether acute or chronic.

With recent statistics indicating that 1-in-3 of today's children will develop diabetes in their lifetime it is imperative that fat mass be monitored and managed. I am not suggesting that we be hysterical about keeping our body fat low (even that has its health risks) but a healthy range should be strived for. Fat cells contain inflammatory mediators which have been associated with heart disease, type-2 diabetes (adult onset) and other obesity-associated diseases.

An indicator of cellular health (known as the Phase Angle) can be correlated with overall tissue health and fitness. A low phase angle is consistent with an inability of cells to store energy and an indication of breakdown in the selective permeability of cellular membranes. A person at end-stage of a terminal disease may have a value of 4 while elite athletes are much higher (ie. Lance Armstrong had a score of 12 while training for the Tour de France). The average person is somewhere between these two extremes.

What will healthy changes look like on a body composition read-out? Phase Angle will increase... fat-free mass will increase... intra-/extra-cellular water will be in a 60/40 ratio... hydration status will enter an ideal range... body cell mass will increase...

Did you know??! The average will experience a loss of 0.45lbs of fat-free mass and 0.55lbs of fat mass for each pound of weight loss while dieting without maintenance exercise.

The purpose of body composition analysis is to monitor and improve function. For healthy patients, analysis of fat-free mass and body cell mass compartments can help maintain function, productivity, immunity, physical performance and longevity.

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