**Body Composition…it’s not all fat!**

Body composition is exactly that, what your body is made up of. We’ve got our bones, muscles, organs, fluids and body fat. These things make up our body composition and account for what we weigh when weighing on a scale. As we all know we need the body parts that sustain life (muscles, bones, organs, etc.) and a limited amount of the body fat.  
  
Body fat always gets a bad rap, because we need it too. Yes, our body; from its cellular activity to organ protection to body temperature regulation depend on fat cells. There is a percentage of body fat cells that we need in order to keep our bodies healthy and functioning properly. It’s the extra body fat that is unnecessary.  
  
Now understand that body weight and the percentage of body fat have a very unique correlation. It’s not smart to depend on body weight as a determinate of obesity. Take for an example a body builder or professional football player. If you were to take their stature and body weight and use a generic BMI (Body Mass Index) measurement or a height/weight chart, they’d be considered overweight and possibly obese, yet their percent body fat is very low. Then there are those individuals who are very thin and don’t look ‘fat’, yet when tested their body fat index is very high.  
  
If we are looking at weight versus fat, we must think of the body fat as the more dangerous component for health. Body fat is a very low-vascular component of our bodies. Outside of the small percentage that our bodies need to function, body fat does nothing for our health. Fat has very little metabolic activity. It burns little to no calories while hitching a ride and causing increased stress on your body. Unlike muscle, which is extremely vascular and burns calories twenty-four hours a day and holds its own.  
  
Measuring body composition or the amount of body fat on your body is a very unique process. The standard of measurement is the hydrostatic weighing, which is done in a large tub of water. This kind of measuring dunks an individual in the water and measures the displacement of the water once the individual has expelled all possible air from their lungs. Since fat isn’t as dense as muscle, bones and organs, it has a floating effect compared to the essential body tissues. Therefore, individuals who carry more body fat, both internally and externally, will have a greater displacement of water.  
  
The second-best way to measure body fat is by using the skinfold measuring technique. This consists of measuring seven specific sites on the body by grabbing a two-inch pinch of the skin and underlying body fat and measuring that pinch in millimeters. The totals of these sites are then put into a calculation and body composition is then determined. Next to the hydrostatic weighing method, use of this seven-site skinfold measurement, done by trained, skilled tester can be 98% accurate.  
  
The newest, and most controversial, method of testing body fat is through the use of a bio-impedance unit. This is a unit that measures your body fat by sending an electrical impulse or wave through your body, either by connections on your hands and feet, gripping a unit or by standing on a scale-like device. This electrical reading is supposed to be able to read the amount of body fat, once again through the various densities of body tissues. These units can be less reliable because our bodies fluctuate so much during any given day. Things like digestion, fluid intake, menstrual cycles, food within the body, hydration can throw off these readings.  
  
What should your ideal body composition be? It varies considerably for men and women, and age. The minimum percent body fat considered safe and acceptable for good health is 5% for males and 12% for females. The average adult tends to fall between 15 – 20% for men and 20-25% for women. Body fat levels that are too low will lead to health problems like eating disorders, amenorrhea, and osteoporosis decreasing overall health. Too much body fat can have equally harmful effects. There is a correlation with men over 25% and women over 32% and increases in illness and disease processes.  
  
Changing your body composition can be done through burning more calories and/or consuming less calories. Exercise and proper nutrition.