

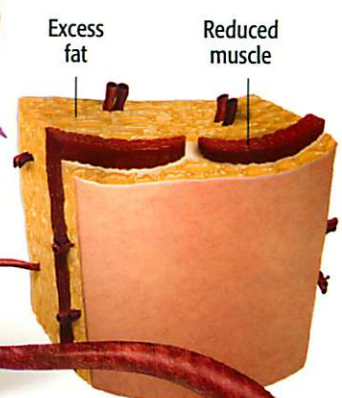
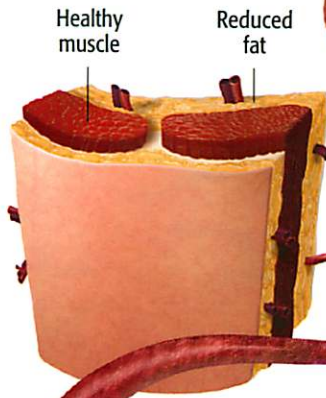
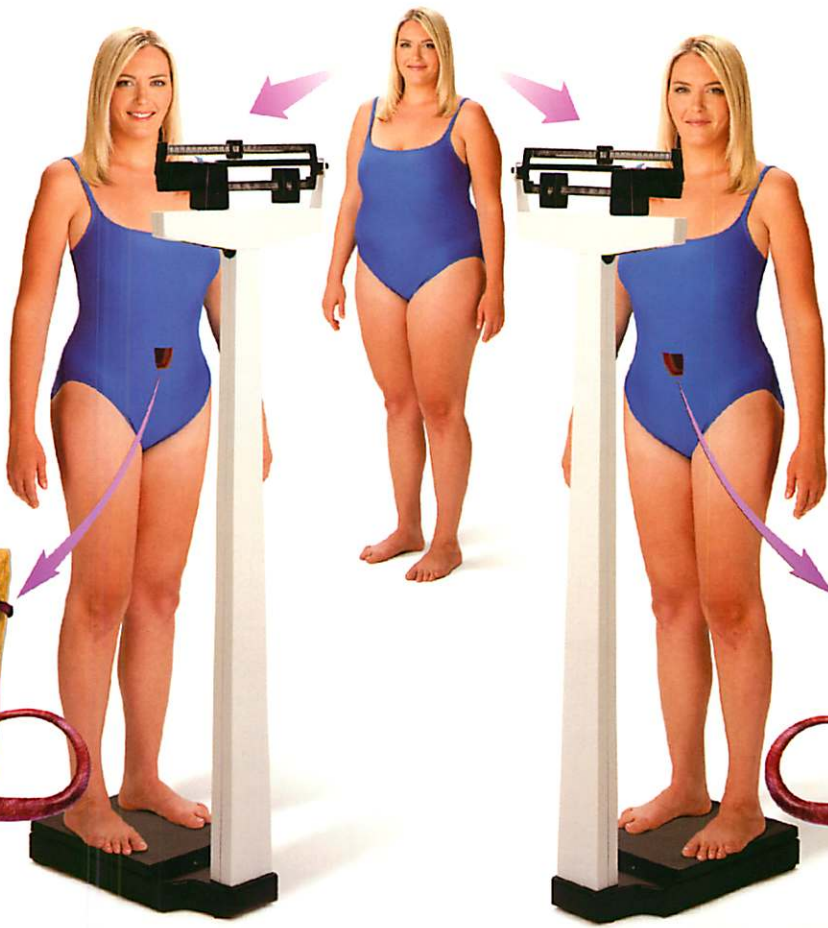
# BODY COMPOSITION & HEALTH

## HEALTHY

A *healthy* body composition program helps a person weigh less and look thinner by causing excess fat to be lost and muscle to be retained. Healthy body composition produces significantly better overall health.

## UNHEALTHY

An *unhealthy* body composition program may help a person weigh less and look thinner, but it causes muscle to be lost and excess fat to be retained. Unhealthy body composition produces increased risk to other serious health concerns.

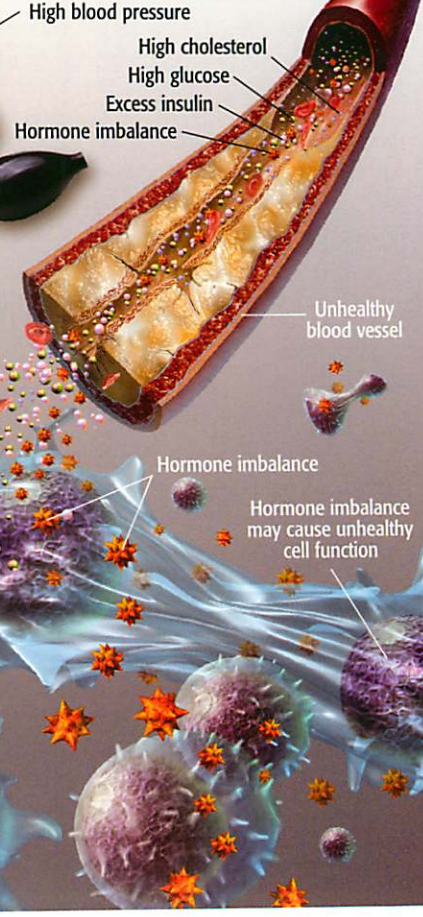
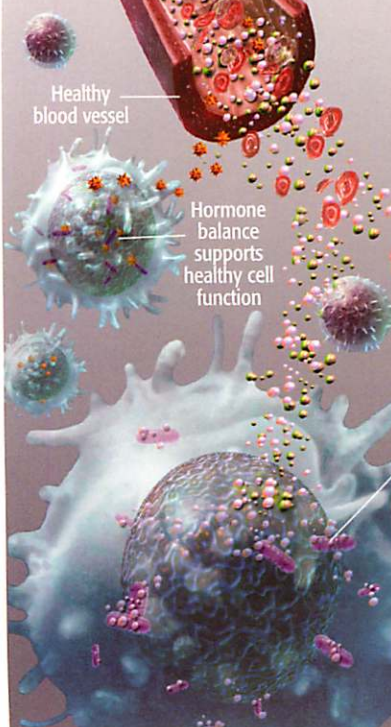


Healthy body composition **reduces** the risk of developing high blood pressure, high cholesterol, cardiovascular disease, insulin insensitivity, type 2 diabetes, hormone imbalance, and more.

Unhealthy body composition **increases** the risk of developing high blood pressure, high cholesterol, cardiovascular disease, insulin insensitivity, type 2 diabetes, hormone imbalance, and more.

- Healthy blood pressure
- Healthy cholesterol
- Healthy glucose levels
- Healthy insulin levels
- Healthy hormone balance

- High blood pressure
- High cholesterol
- High glucose
- Excess insulin
- Hormone imbalance



Healthy blood vessel

Hormone balance supports healthy cell function

Insulin sensitivity supports normal blood insulin and glucose levels, healthy glucose delivery into the cell, and healthy cell function

Insensitivity to insulin raises blood insulin and glucose levels and reduces glucose delivery into the cell, producing increased risk to diabetes, unhealthy cell function, and poor energy production

Unhealthy blood vessel

Hormone imbalance

Hormone imbalance may cause unhealthy cell function

Excess insulin and glucose



# THE EFFECTS OF BODY COMPOSITION ON HEALTH

America is in a state of health emergency. More than 60% of the U.S. adult population is overweight and over 25% are considered obese. One out of four children and adolescents are now considered overweight or obese and are quickly headed for a lifetime of chronic disease. We are fatter than ever and the numbers continue to rise at a dreadfully high rate! Even more alarming is the fact that approximately 20% of overweight Americans may not realize they need to lose excess body fat—because they physically “appear” to be of normal weight. Despite looking thin and having a normal weight, they have *altered* or *unhealthy* body composition. What is unhealthy body composition? Generally speaking, it refers to carrying too much fat in comparison to lean tissue (e.g., muscle). It is clear that achieving healthy body composition is critically important to experiencing the joy that optimal health can bring.

## The Consequences of Unhealthy Body Composition

*Unhealthy* body composition and excess body weight often lead to obesity, which is associated with serious health consequences including:

- Heart disease
- High blood pressure
- Metabolic syndrome
- Back pain
- Certain types of cancer
- Estrogen-related problems
- Excess fatigue
- Sleep apnea
- Stroke
- High cholesterol
- Diabetes
- Respiratory problems
- Kidney disorders
- Gallbladder disorders
- Osteoarthritis
- Urinary incontinence

Metabolic syndrome (also known as syndrome X or insulin resistance syndrome) affects approximately 46% of Americans, and is characterized by high blood pressure, high cholesterol, and high blood insulin and glucose levels. People with metabolic syndrome are at greater risk of developing heart disease, type 2 diabetes, stroke, and Alzheimer’s disease. As a rule, a waist circumference greater than 40 inches for men and greater than 35 inches for women significantly increases the risk of metabolic syndrome.

Even hormone balance can be affected by unhealthy body composition, because estrogen can be produced in fat tissue. An increase in fat-to-muscle mass could therefore lead to an imbalance in estrogen. Estrogen imbalance has been associated with premenstrual syndrome (PMS), uterine fibroid tumors, fibrocystic or painful breasts, cervical dysplasia, endometriosis, systemic lupus erythematosus and breast, uterine, and ovarian cancers.

## Body Composition is More Than Just Your Weight

Body weight alone (what the scale says) is not a definitive assessment of body composition. Even after losing weight, you might still be considered over-fat. This occurs when the weight you lose comes predominantly from muscle and not from fat—producing unhealthy body composition. Having excess fat on the inside but looking normal on the outside may result in disease risks that are similar to those who appear overtly overweight. Where fat accumulates also impacts the degree of risk. Excess fat that is concentrated near the waist—a condition generally referred to as central adiposity or an “apple” shape—greatly increases the risk of disease. The illustration on the reverse

side of this sheet outlines the problems associated with this type of unhealthy body composition—just because you look thin doesn’t mean you are healthy!

Several simple, non-invasive methods are available that can estimate body composition. These include waist-to-hip ratio, skin-fold thickness, and bioelectrical impedance analysis (BIA).

## Factors That Lead to Unhealthy Body Composition

There is no single cause of unhealthy body composition. Excessive fat accumulation can result from an imbalance between the calories you take in and the calories you burn; lack of physical activity; lifestyle influences such as a high-fat, high-sugar diet; overeating; excess alcohol intake; chronic use of corticosteroids; hormone imbalance; and other metabolic factors.

## Achieving a Healthy Body Composition

As the illustration on the reverse side of this sheet outlines, a healthy body composition program helps a person lose weight and look thinner by targeting fat and preserving muscle. This is in contrast to an unhealthy body composition program, which may help a person lose weight, but can result in muscle loss without as much fat loss. By preserving lean muscle mass, a healthy body composition program reduces the risk of disease and may decrease the likelihood that fat will return after the program is complete. This is because a higher ratio of muscle-to-fat may increase the body’s metabolic rate, enabling the body to more effectively burn calories each day.

A traditional approach to improving body composition includes exercise and reduced caloric intake, but nutritional supplementation may also offer additional, significant benefits. For example, one study comparing a doctor-supervised, nutrition-based body composition program to a popular, over-the-counter diet drink showed dramatically different results. Patients on the doctor-supervised program achieved 11 pounds of weight loss from fat and they actually *increased their muscle mass*. The patients on the over-the-counter diet drink lost the majority of their weight from muscle rather than body fat—despite being prescribed the same foods and exercise routine as those on the doctor-supervised program. Our body composition program incorporates the nutritional support necessary to achieve fat loss and preserve muscle. It is comprehensive, yet tailored to meet your individual needs.

You have the power to shape your body for better health. Take the first step to achieving healthy body composition. Ask us today!