Health Risks Associated with Excess Body Fat

Understanding Your Body Fat Percentage

Body fat measurements and the measuring tape are recognized as superior methods for measuring "weight loss". When one declares that they want to "lose weight", what they typically mean is they want to lose fat. So, now that you've had your body fat percentage measured, what does the number really mean?

First, your body fat percentage is simply the percentage of fat your body contains. If you are 150 pounds and 10% fat, it means your body consists of 15 pounds fat and 135 pounds lean body mass (bone, muscle, organ tissue, blood and everything else).

A certain amount of fat is essential to bodily functions. Fat regulates body temperature, cushions and insulates organs and tissues and is the main form of the body's energy storage. (The table at the top of the page describes body fat ranges and their associated categories.)

Knowing your body fat percentage can also help you determine if your weight loss goals are realistic. Remember, weight loss doesn't always mean fat loss.

By way of example, let's say you have a 130 lb female with 23% body fat, and her goal is to "lose 20 pounds":

- Initial body fat: 130 lbs x 0.23 fat = 30 lbs body fat
- Lean body mass: 130 lbs total – 30 lbs fat = 100 lbs lean body mass (bones, organs and all else)
- Goal: 130 lbs – 20 lbs = 110 pounds

As you can see, the goal of losing 20 pounds is not realistic or healthy. At 110 pounds, this woman still requires 100 lbs of lean body mass (bones, organs, etc.), but would only be carrying 10 lbs, or only 9% body fat. That would be a dangerously low percentage.

A better goal might be for the female to reduce her body fat from 23% to 18%. In this case:

- 130 lbs x 0.18 = 23 lbs body fat
- 100 lbs lean body mass + 23 lbs = 123 lb goal weight

So, for this individual to achieve a lean, but healthy 18% fat, she would need to lose only 7 pounds of fat, reducing her weight from her current 130 pounds to 123 pounds. Losing more than 7 pounds means losing lean body mass (usually metabolically-active muscle tissue), which is clearly not desirable.

So before you decide you need to "lose weight", remember to consider that "weight" consists of both lean body mass and body fat. Try to keep your weight loss goals realistic, and remember, keep the calorie-burning muscle, and lose only the fat.

Overweight and Obesity: Health Consequences

The primary concern of overweight and obesity is one of health and not appearance.

PREMATURE DEATH

- An estimated 300,000 deaths per year may be attributable to obesity.
- The risk of death rises with increasing weight.
- Even moderate weight excess (10 to 20 pounds for a person of average height) increases the risk of death, particularly among adults aged 30 to 64 years.
- Individuals who are obese (BMI > 30) have a 50 to 100% increased risk of premature death from all causes, compared to individuals with a healthy weight.

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HEART DISEASE
- The incidence of heart disease (heart attack, congestive heart failure, sudden cardiac death, angina or chest pain, and abnormal heart rhythm) is increased in persons who are overweight or obese (BMI > 25).
- High blood pressure is twice as common in adults who are obese than in those who are at a healthy weight.
- Obesity is associated with elevated triglycerides (blood fat) and decreased HDL cholesterol ("good cholesterol").

DIABETES
- A weight gain of 11 to 18 pounds increases a person's risk of developing type 2 diabetes to twice that of individuals who have not gained weight.
- Over 80% of people with diabetes are overweight or obese.

CANCER
- Overweight and obesity are associated with an increased risk for some types of cancer including endometrial (cancer of the lining of the uterus), colon, gall bladder, prostate, kidney, and postmenopausal breast cancer.
- Women gaining more than 20 pounds from age 18 to midlife double their risk of postmenopausal breast cancer, compared to women whose weight remains stable.

BREATHING PROBLEMS
- Sleep apnea (interrupted breathing while sleeping) is more common in obese persons.
- Obesity is associated with a higher prevalence of asthma.

ARTHRITIS
- For every 2-pound increase in weight, the risk of developing arthritis is increased by 9 to 13%.
- Symptoms of arthritis can improve with weight loss.

REPRODUCTIVE COMPLICATIONS
- Complications of pregnancy
  - Obesity during pregnancy is associated with increased risk of death in both the baby and the mother and increases the risk of maternal high blood pressure by 10 times.
  - In addition to many other complications, women who are obese during pregnancy are more likely to have gestational diabetes and problems with labor and delivery.
  - Infants born to women who are obese during pregnancy are more likely to be high birth weight and, therefore, may face a higher rate of Cesarean section delivery and low blood sugar (which can be associated with brain damage and seizures).
  - Obesity during pregnancy is associated with an increased risk of birth defects, particularly neural tube defects, such as spina bifida.
- Obesity in premenopausal women is associated with irregular menstrual cycles and infertility.

ADDITIONAL HEALTH CONSEQUENCES
- Overweight and obesity are associated with increased risks of gall bladder disease, incontinence, increased surgical risk, and depression.
- Obesity can affect the quality of life through limited mobility and decreased physical endurance as well as through social, academic, and job discrimination.

CHILDREN AND ADOLESCENTS
- Risk factors for heart disease, such as high cholesterol and high blood pressure, occur with increased frequency in overweight children and adolescents compared to those with a healthy weight.
- Type 2 diabetes, previously considered an adult disease, has increased dramatically in children and adolescents.
- Overweight and obesity are closely linked to type 2 diabetes.
- Overweight adolescents have a 70% chance of becoming overweight or obese adults. This increases to 80% if one or more parent is overweight or obese.
- The most immediate consequence of overweight, as perceived by children themselves, is social discrimination.

BENEFITS OF WEIGHT LOSS
- Weight loss, as modest as 5 to 15% of total body weight in a person who is overweight or obese, reduces the risk factors for some diseases, particularly heart disease.
- Weight loss can result in lower blood pressure, lower blood sugar, and improved cholesterol levels.
- A person with a Body Mass Index (BMI) above the healthy weight range may benefit from weight loss, especially if he or she has other health risk factors, such as high blood pressure, high cholesterol, smoking, diabetes, a sedentary lifestyle, and a personal and/or family history of heart disease.

1 Sources: National Heart, Lung & Blood Institute, and the American Medical Association.
2 Source: United States Department of Health & Human Services