

Know Body Fat 101



Summary: You need a degree of body fat to be healthy. It is termed essential fat (important: hormones, insulation, energy). Essential Fat is at least 5 and 13% of body weight for men and women, respectively. Excess body fat is > 25% for men and > 32% for women. Average American men and women have ~28 and 40% body fat (research). Excess body fat contributes to disease and death. An easy way to determine if you are at risk because of body fat is through a waist measure. Having a large abdomen is a risk factor for metabolic syndrome. Weight in the lower body is not a health risk. Have your waist measured around your navel to determine if you are at risk (how to measure). I typically suggest men and women to have a waist circumference less than 35" and 32.5" respectively. Body Fat is made up of mostly cells and some water. They are termed white, brown (found in primarily babies and in a small degree in adults, they can burn fat to keep you warm), and beige cells (somewhere between white and brown). They can be stored as essential (muscles, nerve cells, bone marrow, intestines, heart, liver, and lungs), subcutaneous (under skin), or visceral fat. Visceral fat is found in the abdominal cavity and is metabolically active releasing compounds that increase inflammation and insulin resistance. Having excess visceral fat is linked to cardiometabolic disease. Fat cell number is determined from birth to adolescence. People who make more fat cells during childhood find it easier to gain even more weight as an adult and harder to lose weight. You typically increase the size of your fat cells and not produce additional cells from overconsumption as you age in your abdomen, but that may not be the case in the lower body. Weight loss can reduce the size of fat cells but not the number. Women store more fat in the gluteal-femoral region, whereas men store more fat in the visceral (abdominal) depot in general. Research has found that men tend to lose more weight from their trunk area, while women lose more weight from their hips. Alarmingly, a 2012 study at Oxford University found that the fat in your food in excess ends up on your waistline in less than four hours. Genetics seems to play a role in body weight and weight gain, anywhere from 20-80%. So it is part of the picture, but not the whole picture.

Know Body Fat Part 1

Body fat also known as adipose tissue serves a number of important functions. Its primary purpose is to store lipids from which the body creates energy. In addition, it secretes a number of important hormones, and provides the body with some cushioning as well as insulation. We therefore need a degree of body fat. Too much though may become a health issue. Essential fat is necessary for a healthy, functional body (3-5% for men and 13% for women). If body fat is too low you may experience chronic fatigue, weakened bones, a disordered metabolism, memory problems and an inability to concentrate. Body fat helps the body absorb nutrients; without it, you may become susceptible to infectious diseases due to a weakened immune system.

Body fat can be found in muscle tissue, under the skin, and around your organs. Fat found in the muscle is generally not unhealthy. Think of it as an energy store. Fat found under the skin is known as subcutaneous fat, which may impact health negatively if excessive, especially if found around abdomen. Visceral fat is found around your organs, which is also known as belly fat if excessive it is especially unhealthy. Excess body fat is > 25% for men and > 32% for women. Average American men and women have ~28 and 40% body fat ([research](#)).

Fat cells can grow in size and number: According to Harvard Health the amount of fat cells in our bodies is determined soon after birth and may increase during adolescence, and tends to be stable throughout adulthood if weight remains fairly stable. But eating too many calories in the long-term can cause fat cells to increase in size and be stored in various areas throughout the body, which leads to a risk of chronic inflammation and glitches in healthy metabolism, with the potential for new fat cells to grow. These larger fat cells become resistant to insulin, which increases the risk of type 2 diabetes and cardiovascular disease. Weight loss can reduce the size of fat cells but not the number. You are pretty much stuck with your number of fat cells.

Where do you lose fat first: The easiest type of fat to lose is white visceral fat, aka harmful deep-belly fat. This is typically the first to go when you lose weight. The active nature of visceral fat — what makes it so threatening in terms of your health — also makes it vulnerable to loss. [Research](#) has found that men tend to lose more weight from their trunk area, while women lose more weight from their hips. If you've lost weight before, you may already know where your body tends to show weight loss first. For some people, the first noticeable change may be at the waistline, which is a good thing. For others, the breasts or face are the first to show change. Where you gain or lose weight first is likely to change as you get older. Both middle-aged men and postmenopausal women tend to store weight around their midsections. [Studies](#) show that for postmenopausal women, adding exercise alongside a healthy diet is key to losing belly fat.

Why it matters where you lose weight: Multiple studies have confirmed that extra weight around the midsection has worse health consequences than extra weight around the hips and thighs.

How fast does excess fat and calories show up on your body: A 2012 study at Oxford University found that the fat in your food ends up on your waistline in less than four hours. Carbohydrate and protein take a little longer, because they need to be converted into fat in the liver first and it takes nine calories of protein or carbohydrate to make 1g of fat. That is why extra fat, above 30% of calories, is considered by some to be fattening ([research](#)). In other words you need dietary fat to be healthy but in excess above 30% of calories it may lead to weight gain.