

Myths and Misconceptions About Fat

What exactly is fat anyway? First, the fat we take in through food is made up of lipids or fatty acids, and it comes in various forms, ranging from liquid oil, such as olive oil, to solid, such as hydrogenated margarine and shortening. However, the fat in our bodies is a type of tissue made up of cells containing stored fat. This fat can be "white fat", which is found in large cell sacs, or vesicles. Stored fat can also be "brown fat", which is made up of lipid droplets. Let's address some of the myths and misconceptions surrounding fat.

1. "I should cut out as much fat as possible."

Actually, we need a certain amount of fat in our food every day. There are certain vitamins, such as Vitamin A, D, E and K that are fat-soluble. This means that these vitamins have to have fat on board in order to be absorbed into the body, and they also need fat in order to be metabolized, or broken down. Other vitamins, such as B complex, and C, are water soluble. So we need both fat and water in our diet to get the most nutrition out of our food. Ideally, we should take in as little saturated fat as possible. However, we should eat 2-3 tablespoons (30-45 ml) of unsaturated fat each day. This fat comes from sources such as cooking oil, salad dressings, non-hydrogenated margarine and mayonnaise. This will give us the fat needed to absorb our nourishment properly. About 25-30% of our daily caloric intake should be from fat.

2. "Food products advertised as "low-fat" are always a better choice."

Not necessarily. While it's good to cut down on fats, particularly saturated and hydrogenated fats, often food manufacturers replace the missing fat with extra sugar and/or sodium, making a "low-fat" food a poor choice in the end. So it's a good idea to check out the labels on food packaging, and get an idea of how much of each element is in your food.

3. "The type of fat I eat doesn't matter."

Oils and fats vary widely in what they deliver. Key concepts are saturated, monounsaturated, and polyunsaturated types of fat. Saturated fats are saturated with hydrogen atoms. All fats are a source of energy for the body, but saturated fats can raise both good and bad types of cholesterol, and has been linked strongly with heart disease. Although saturated fats have their uses, such as helping absorb certain vitamins and building cell membranes, the human body can make all the saturated fat it needs! So we look for mono- and poly-unsaturated fats.

Monounsaturated fats have been associated with a lower risk of heart disease and stroke. Olive oil is great for this element, because 75% of it is monounsaturated. Canola and peanut oils are also good sources. Surprisingly, almost half of the fat in beef is unsaturated (yes, you still need to trim off the excess fat!).

Polyunsaturated fats are liquid both at room temperature and when cold. This type of fat contains both omega-3 and omega-6 fatty acid, and current science suggests that more omega-3 should be eaten than omega-6. Soybean, high oleic sunflower and safflower oils, and fatty fish such as salmon, trout, and mackerel are good. Walnuts, olives and avocados are also good sources (but restrain yourself on the olives because of the sodium content!)

Trans fats started out as unsaturated fats, and manufacturers have added hydrogen bonds to the fat. This makes the fat more stable, so the food has a longer shelf life. But our bodies pay for this convenience - trans fat increase total cholesterol levels, and have been solidly linked to cardiac disease and diabetes. Typical culprits include commercial baked goods, such as doughnuts. Fast food restaurants can be awash in trans fat. Do your homework - go on the internet and check out the nutritional information for your favourite fast food destination. You may be shocked.

4. "I should have as low a percentage of stored body fat as possible."

Our bodies are made up of four elements: water, protein, minerals and fat. There are some widely accepted standards as to how much of our body composition should be fat. Check out Dr. Len Kravitz's research on the subject:

<http://www.unm.edu/~lkravitz/Article%20folder/underbodycomp.html>. In a nutshell, for women, our minimal fat weight should be 15% of our body weight;

for optimal health, we should be carrying 18-30% of body weight in fat, and for optimal fitness, 16-25%. For men, it's a bit different: minimal fat weight is 5%; for optimal health, 10-25% of body weight in fat, and for optimal fitness, 12-18%.

Although excess body fat in certain areas, such as around the waist and abdomen raises concerns about health risks such as diabetes and cardiac disease, clearly we need some fat. What role does fat play in the body?

Fat is a source of energy, or fuel for the body. We are burning fat constantly, although at different rates depending on our activity level.

Some fat is necessary to act as a cushion to our organs, in particular the heart, and also helps to insulate us from cold weather. Fat also provides insulation for our nerves.

Fat is essential to keep our hormone levels balanced.

Fat helps our cells to transport nutrients through the cell membranes.

Fat also builds brainpower, by producing myelin, which is the fatty insulating sheath that coats nerve fibres. This allows the nerve fibres to transmit information faster.

5. "If I work out hard enough, I can turn my extra fat into muscle."

We're talking about two different types of tissues here. We can't transform one tissue into another type of tissue. Exercise is a key component in a healthy body composition, with an optimal share of both stored body fat and lean muscle mass. So exercise to burn excess fat AND build more lean muscle mass. Bonus: your body burns more calories to maintain lean muscle mass than stored body fat. So, the better your body composition is, the more calories your body uses to sustain your functions.

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