



THE SKINNY ON FATS & CHOLESTEROL

Written by Mary G. Enig, PhD and Sally Fallon

Fat. We are so afraid of fats! Modern diet professionals and governmental agencies insist that saturated fats are bad for us, that they are the villains in the modern diet, causing everything from cancer to heart disease. Today, government agencies suggest low-fat diets for children to avoid feeding them saturated fats.

However, the science shows that saturated fats play many important roles in our body chemistry. Children in particular need traditional saturated fats. The low-fat diet widely promoted by the conventional medical and food industries starves them of vital nutrients during their formative years.

Some of the vital roles of saturated fats include:

Cell Membrane Function – 50 percent of the fats in cell membranes must be saturated for the cells to function properly.

Lung Function – The lungs cannot function without saturated fats, which explains why children fed butter and whole milk have much less asthma than children fed margarine and low-fat milk.

Kidney Function – The kidneys operate through a process that requires saturated fat.

Brain and Nervous System – The normal brain is especially rich in saturated fat (and also cholesterol).

Immune System – Saturated fats are needed for healthy immune function.

Protection Against Infection – Some kinds of saturated fats (found in coconut oil and butter) help fight pathogenic bacteria, viruses and parasites. Children fed skim milk suffer from infection five times more frequently than children fed whole milk.

Heart Function – Saturated fats are the preferred food for the heart. Children on low-fat diets actually develop blood markers indicating proneness to heart disease.

Vitamin Carriers – Saturated animal fats serve as unique sources of important nutrients such as vitamins A and D, and CLA.

Eat Fat, Lose Fat

Many people avoid fats, and especially saturated animal fats, for fear of gaining weight. Yet fats from healthy animals will provide the vital nutrients needed to satisfy the body and curb hunger while eliminating common cravings for sugar or fried food. When the body continually gives hunger signals, it is often a cry for the vital nutrients it is missing. In other words, if you keep feeding yourself processed foods that lack nutrients, you

may continually experience hunger and cravings. For example, one may eat bag after bag of chips without experiencing satiety. However, a breakfast consisting of traditional fats such as 2-3 pastured eggs cooked in organic butter, will satisfy your hunger for hours. A key to maintaining optimal weight is to give your body essential nutrients, many of which are found in traditional fat such as butter, tallow and suet from beef and lamb, lard from pigs, chicken, goose and duck fat, coconut, palm and palm kernel oils, cold pressed olive oil, cold pressed sesame and peanut oils, cold pressed flax oil in small amounts and marine oils such as cold liver oil.

The Basic Types of Fat

- Saturated fats tend to be solid at room temperature. Sources include butter, the fat on meat, coconut oil and palm oil. The fat from chicken, goose, duck and pig (lard) also contains high levels of saturated fat. These fats have a high heat stability and are recommended for cooking.
- Monounsaturated oils tend to be liquid at room temperature but solid in the refrigerator. The healthiest monounsaturated oil is olive oil, which should only be used as a finishing oil on salads, drizzled over cooked veggies, etc. It should not be heated, and it should be stored in a dark bottle in a cool, dark place. Not next to your stove or in direct sunlight. However, olive oil lacks many important nutrients found in animal fats and should not be used as the exclusive fat in the diet. Canola oil is promoted as a healthy monounsaturated oil; however, it contains fragile omega-3 fatty acids that are transformed into dangerous free radicals and even trans- fats during processing. "Like rapeseed oil, its predecessor, canola oil is associated with fibrotic lesions of the heart. It also causes vitamin E deficiency, undesirable changes in the blood platelets, and shortened life-span in stroke-prone rats when it was the only oil in the animals' diet. Furthermore, it seems to retard growth which is why the FDA does not allow the use of canola oil in infant formula. When saturated fats are added to the diet, the undesirable effects of canola oil are mitigated." Read more about canola oil: <http://www.westonaprice.org/know-your-fats/the-great-con-ola>
- Polyunsaturated oils are liquid even when chilled. These include all commercial oils from corn, soy, sunflower and safflower. Use of these oils is associated with many modern diseases, including cancer, heart disease, immune system dysfunction, sterility, digestive disorders, learning disabilities, growth problems and osteoporosis. Flax oil contains omega-3 fatty acids, which have health benefits; however, flax oil should only be used in small amounts in salad dressings and homemade spreads. Because omega-3 fatty acids are very fragile, flax oil should be stored in the refrigerator and never heated.
- Trans fats are formed by an industrial process called partial hydrogenation that turns liquid polyunsaturated oils into a hard fat. They are associated with a host of modern diseases, including cancer, heart disease, growth problems, weight gain and sterility. Trans fats interfere with enzymes needed to fight toxins and also to make important hormones, including sex hormones. The U.S. government has concluded that industrial trans fats are unsafe at any level in the diet. Yet, they are found in most processed foods, including cookies, crackers, bread, chips, snack foods, salad dressings and fried foods. Consumers who mistakenly try to avoid saturated fat usually end up eating a lot of dangerous trans fats instead.

And what about cholesterol?

Here, too, the public has been misinformed. Our blood vessels can become damaged in a number of ways - through irritations caused by free radicals or viruses, or because they are structurally weak - and when this happens, the body's natural healing substance steps in to repair the damage. That substance is cholesterol. Cholesterol is a high-molecular-weight alcohol that is manufactured in the liver and in most human cells. Like saturated fats, the cholesterol we make and consume plays many vital roles:

Along with saturated fats, cholesterol in the cell membrane gives our cells necessary stiffness and stability. When the diet contains an excess of polyunsaturated fatty acids, these replace saturated fatty acids in the cell membrane, so that the cell walls actually become flabby. When this happens, cholesterol from the blood is "driven" into the tissues to give them structural integrity. This is why serum cholesterol levels may go down temporarily when we replace saturated fats with polyunsaturated oils in the diet.

- Cholesterol acts as a precursor to vital corticosteroids, hormones that help us deal with stress and protect the body against heart disease and cancer; and to the sex hormones like androgen, testosterone, estrogen and progesterone.
- Cholesterol is a precursor to vitamin D, a very important fat-soluble vitamin needed for healthy bones and nervous system, proper growth, mineral metabolism, muscle tone, insulin production, reproduction and immune system function.
- The bile salts are made from cholesterol. Bile is vital for digestion and assimilation of fats in the diet.
- Recent research shows that cholesterol acts as an antioxidant. This is the likely explanation for the fact that cholesterol levels go up with age. As an antioxidant, cholesterol protects us against free radical damage that leads to heart disease and cancer.
- Cholesterol is needed for proper function of serotonin receptors in the brain. Serotonin is the body's natural "feel-good" chemical. Low cholesterol levels have been linked to aggressive and violent behavior, depression and suicidal tendencies.
- Mother's milk is especially rich in cholesterol and contains a special enzyme that helps the baby utilize this nutrient. Babies and children need cholesterol-rich foods throughout their growing years to ensure proper development of the brain and nervous system.
- Dietary cholesterol plays an important role in maintaining the health of the intestinal wall. This is why low-cholesterol vegetarian diets can lead to leaky gut syndrome and other intestinal disorders.

Cholesterol is not the cause of heart disease but rather a potent antioxidant weapon against free radicals in the blood, and a repair substance that helps heal arterial damage (although the arterial plaques themselves contain very little cholesterol.) However, like fats, cholesterol may be damaged by exposure to heat and oxygen. This damaged or oxidized cholesterol seems to promote both injury to the arterial cells as well as a pathological buildup of plaque in the arteries. Damaged cholesterol is found in powdered eggs, in powdered milk (added to reduced-fat milks to give them body) and in meats and fats that have been heated to high temperatures in frying and other high-temperature processes.

High serum cholesterol levels often indicate that the body needs cholesterol to protect itself from high levels of altered, free-radical-containing fats. Just as a large police force is needed in a locality where crime occurs

frequently, so cholesterol is needed in a poorly nourished body to protect the individual from a tendency to heart disease and cancer. Blaming coronary heart disease on cholesterol is like blaming the police for murder and theft in a high crime area.

Poor thyroid function (hypothyroidism) will often result in high cholesterol levels. When thyroid function is poor, usually due to a diet high in sugar and low in usable iodine, fat-soluble vitamins and other nutrients, the body floods the blood with cholesterol as an adaptive and protective mechanism, providing a superabundance of materials needed to heal tissues and produce protective steroids. Hypothyroid individuals are particularly susceptible to infections, heart disease and cancer.

Numerous surveys of traditional populations have yielded information that is an embarrassment to the Diet Dictocrats. For example, a study comparing Jews when they lived in Yemen, whose diets contained fats solely of animal origin, to Yemenite Jews living in Israel, whose diets contained margarine and vegetable oils, revealed little heart disease or diabetes in the former group but high levels of both diseases in the latter. (The study also noted that the Yemenite Jews consumed no sugar but those in Israel consumed sugar in amounts equaling 25-30% of total carbohydrate intake.) A comparison of populations in northern and southern India revealed a similar pattern. People in northern India consume 17 times more animal fat but have an incidence of coronary heart disease seven times lower than people in southern India. The Masai and kindred tribes of Africa subsist largely on milk, blood and beef. They are free from coronary heart disease and have excellent blood cholesterol levels. Eskimos eat liberally of animal fats from fish and marine animals. On their native diet they are free of disease and exceptionally hardy. An extensive study of diet and disease patterns in China found that the region in which the populace consumes large amounts of whole milk had half the rate of heart disease as several districts in which only small amounts of animal products are consumed. Several Mediterranean societies have low rates of heart disease even though fat - including highly saturated fat from lamb, sausage and goat cheese - comprises up to 70% of their caloric intake. The inhabitants of Crete, for example, are remarkable for their good health and longevity. A study of Puerto Ricans revealed that, although they consume large amounts of animal fat, they have a very low incidence of colon and breast cancer. A study of the long-lived inhabitants of Soviet Georgia revealed that those who eat the most fatty meat live the longest. In Okinawa, where the average life span for women is 84 years - longer than in Japan - the inhabitants eat generous amounts of pork and seafood and do all their cooking in lard. None of these studies is mentioned by those urging restriction of saturated fats.

The relative good health of the Japanese, who have the longest life span of any nation in the world, is generally attributed to a low fat diet. Although the Japanese eat few dairy fats, the notion that their diet is low in fat is a myth; rather, it contains moderate amounts of animal fats from eggs, pork, chicken, beef, seafood and organ meats. With their fondness for shellfish and fish broth, eaten on a daily basis, the Japanese probably consume more cholesterol than most Americans. What they do not consume is a lot of vegetable oil, white flour or processed food (although they do eat white rice.) The life span of the Japanese has increased since World War II with an increase in animal fat and protein in the diet. Those who point to Japanese statistics to promote the low fat diet fail to mention that the Swiss live almost as long on one of the fattiest diets in the world. Tied for third in the longevity stakes are Austria and Greece - both with high fat diets.

As a final example, let us consider the French. Anyone who has eaten his way across France has observed that the French diet is just loaded with saturated fats in the form of butter, eggs, cheese, cream, liver, meats and rich patés. Yet the French have a lower rate of coronary heart disease than many other western countries. In the United States, 315 of every 100,000 middle-aged men die of heart attacks each year; in France the rate is 145 per 100,000. In the Gascony region, where goose and duck liver form a staple of the

diet, this rate is a remarkably low 80 per 100,000. This phenomenon has recently gained international attention as the French Paradox. (The French do suffer from many degenerative diseases, however. They eat large amounts of sugar and white flour and in recent years have succumbed to the timesaving temptations of processed foods.)

To learn more, visit: <http://www.westonaprice.org/know-your-fats/skinny-on-fats>