

FATS (lipids)

Fats have a bad reputation, however fats are an important part of our diets. It's important to choose the right kinds of fats.

Functions of Fats:

- Help with normal growth and development by providing essential fatty acids (EFAs).
- Provide a concentrated source of energy (9 calories per gram).
- Carry the fat soluble vitamins A, D, E and K.
- Form cell membranes and secretions in the body.
- Act as an internal blanket to hold in body heat (adipose tissue).
- Cushion internal organs.

Types of Fat:

• Saturated Fat

Saturated fat comes primarily from animal sources. It is solid at room temperature and it is the less healthy fat that we consume. Chemically, saturated fats have no double bonds and a full load of hydrogen molecules. This type of fat is linked to high blood cholesterol, as it can clog our arteries.

• Unsaturated Fat

Unsaturated fat primarily comes from plant sources. It is usually liquid at room temperature and it is the heart-healthy fat that we should emphasize in our diets. There are two types of unsaturated fats: monounsaturated and polyunsaturated. Chemically, unsaturated fats have one or more double bonds, which makes them more flexible than saturated fats. Monounsaturated fats have one double bond and they have been found to lower cholesterol. Polyunsaturated fats have been found to help reduce the risk of heart disease and stroke.

• **Phospholipids and Steroids** are the other two types of **lipids** found in the body and in our food.

• **Trans Fats** – trans fats occur when oils are partially **hydrogenated** and some of the unsaturated fats in the oil change their shape. Oils would be hydrogenated to make them solids at room temperature in order to enhance stability. Trans fats act like saturated fats in the body, by clogging arteries, however trans fats do not break down in the body. It is estimated that 10 grams of trans fat takes ten times as long to break down as even 10 grams of saturated fats. To find out if a product contains trans fats, read the food label, and look for the words “hydrogenated” or “partially hydrogenated” vegetable oil in the ingredient list.

• **Essential Fatty Acids (EFAs)** – are also known as omega-3 and omega-6 fatty acids. Many products on the market are being enhanced with these fatty acids, however some products, like fish, flax seeds, walnuts and pumpkin seeds, naturally contain them. The advantages of choosing Essential Fatty Acids are that they reduce the risk of heart attack, regulate blood pressure and clotting, improve brain development, reduce attention deficit-hyperactivity disorder and they help to keep the immune system healthy.

Sources of Fat:

Saturated – butter, meats, eggs, luncheon meats, yogurt, milk, baked goods, etc.

Unsaturated – olive oil, canola oil, fish, nuts, seeds, avocados, etc.

Fat in the Body:

The body must digest and absorb fats before using them as an energy source. Most fat digestion takes place in the small intestine where bile keeps fat emulsified (mixed together) as pancreatic digestive enzymes break down triglycerides into fatty acids. They then get absorbed into the bloodstream for use in the body.

Meeting Your Fat Needs:

It is easy to meet our fat needs, and generally we consume too much fat in our diets. We should emphasize unsaturated fats and limit saturated and trans fats.

Nutrition Recommendations for Canadians state that the Canadian diet should include no more than 30% of energy as fat and no more than 10% as saturated fat.

New recommendations also suggest emphasizing omega 3 and omega 6 fatty acids. (about 1.6 grams of each per day) and suggest limiting trans fat to no more than 2 grams per day. Most people consume 10 grams per day.

What About Cholesterol?

Cholesterol is a waxy fat-like substance that is made by the body and is found naturally in animal foods such as meat, fish, poultry, eggs, and dairy products. Foods high in cholesterol include liver and organ meats, egg yolks, and dairy fats.

Cholesterol is carried in the blood. When cholesterol levels are too high, some of the cholesterol is deposited on the walls of the blood vessels. Over time, the deposits can build up causing the blood vessels to narrow and blood flow to decrease. Cholesterol is needed by the body to make hormones and other substances. The cholesterol in food, like saturated fat, tends to raise blood cholesterol, which increases the risk for heart disease.

Total blood cholesterol levels above 240 mg/dl (milligrams per decilitre) are considered high. Levels between 200-239 mg/dl are considered borderline high. Levels under 200 mg/dl are considered desirable.

HDL (High Density Lipoproteins) is considered the "good cholesterol" and it carries the cholesterol from tissues and returns it to the liver. It is called "good" because high levels of HDL can reduce your risk of developing cardiovascular disease.

LDL (Low Density Lipoproteins) are considered the "bad cholesterol" because this is the type of cholesterol that will clog your arteries if it is allowed to build up.

Eat Well, Live Well

Making healthy fat choices

- Limit the total amount of fat you eat
- Choose food products with less fat.
- Check the Nutrition Facts table on food labels and buy foods with a low amount of fat (grams or %) per serving; it is not necessary to always buy "fat-free" products.
- Use only a small amount of fat or oil in food preparation; avoid deep-frying.
- Reduce the quantity of fat used in homemade baking.
- Enjoy nuts and seeds in small portions.
- Limit spreads, dressings, rich sauces, gravies and high fat desserts and snack foods.
- Avoid trans fat
 - Buy foods with zero trans fat or with the least amount of trans fat per serving.
 - Read the ingredient list and avoid or limit foods made with partially hydrogenated vegetable oil or shortening.
 - Limit commercial baked goods, crackers, cookies, biscuits, pies, waffles, snack foods and deep-fried fast foods that may be high in trans fat.
- Reduce saturated fat
 - Limit shortening, hard or hydrogenated margarines, butter, and lard; only have gravy and other high fat sauces on occasion.
 - Check the ingredient list on food labels and limit foods containing hydrogenated vegetable oil, shortening, coconut oil, palm kernel oil, beef tallow, suet, or cocoa butter. These ingredients are often found in commercial baked goods, crackers, chocolate bars, specialty coffees, non-dairy creamers and whipped toppings.
 - Choose lean cuts of meat such as sirloin, loin, round, rump, and extra lean ground beef; trim off fat; remove skin from poultry; limit processed meats such as bologna, wieners, bacon, sausages, pepperoni.

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