



This educational hand out will teach you about different kinds of fats and their functions in the body. You will be able to identify which fats are healthy and unhealthy fat, and those that are a combination of both. Lastly, you will learn about 17 ways you can decrease fat in your diet.

Fats are a dense concentrated energy source. It is also a very-slow-release energy. We need a little fat in our diet most every day. But we only need a little because it is a concentrated, dense energy. It is very VERY important to be respectful of the serving size on this very dense energy source.

We all need fat in our diet to survive. Fats have many important functions. Here is a list of some of those important functions:

1. We need fat for a healthy brain and nervous system. The solid weight of our brain is 60% fat. The insulation that surrounds all of our nerves is made of fat.
2. Fat is an important energy source.
3. Fat is needed for the absorption and transport our fat soluble vitamins – A, E, D, and K.
4. Fat provides protection and structure for internal organs.
5. Fat is needed for production of certain important hormones.
6. Fat helps regulate body temperature.
7. Fats help satisfy you after a meal.

Fat	Serving Sizes
Butter, Margarine without hydrogenated oil, Olive Oil, Sunflower Oil, Grape Seed Oil, Safflower Oil, Peanut Oil, Nut Oils, Coconut Oil	1 Teaspoon
Salad Dressing, Cream, Mayonnaise, Cream Cheese, Sour Cream	1 Tablespoon
Seeds, Nuts (Also count as an ounce of protein)	¼ Cup
Peanut Butter, Sunflower Seed Butter, Almond Butter, Cashew Butter, etc. (Also count as an ounce of protein)	2 Tablespoon
Avocados, Hard Yellow Cheeses, Bacon	1 Ounce
Black and Green Olives	8 Olives

DIFFERENT KINDS OF FATS

There are several different kinds of fats in our diets. Some fats are healthy and some are not. You need to learn about the various fats before you can understand how to make healthy choices concerning fats in your diet.

I. Unsaturated fats - there are two kinds of unsaturated fats - monounsaturated and polyunsaturated. It is important to eat oils in their unrefined state. These oils should be **cold pressed** or **expeller expressed** and it will be stated on the label.

A. Monounsaturated fatty acids – found primarily in nuts, avocados and olives. Good sources of monounsaturated fats are olive oil, canola oil, macadamia nut oil, oils from almonds, pecans, cashews, Brazil nuts, and avocados. These fats are liquid at room temperature and stable when heated.

Functions of Monounsaturated fatty acids

1. They provide antioxidants like vitamin E and selenium;
2. They provide small amounts of healthy fats that help the body absorb fat soluble vitamins – A, E, D, and K;
3. They can help prevent and treat obesity, diabetes, heart disease, cancer, muscular skeletal pain and other inflammatory conditions;
4. Research shows they have a beneficial effect on cholesterol, blood clotting, inflammation and blood pressure.

B. Polyunsaturated fats - are called essential fatty acid because our body does not make these fats. These fatty acids are essential for maintaining health, so we need to eat these fats in our diet. These fats are liquid at room temperature. They are not stable when heated and they become rancid easily. It is best to store them in the refrigerator. There are two polyunsaturated fats that play key roles in our diets: omega 3 fats and omega 6 fats. The tendency of the American diet is to eat too much omega 6 fat and too little omega 3 fat. This has unhealthy consequences like increased inflammatory diseases. It has been determined that the healthiest ratio of omega 6 to omega 3 is a 4:1 ratio.

1. Omega 3 Fatty Acids

Omega 3 fatty acid is the healthy fat in fish oil and flaxseed oil. **It is a proven fact that individuals who are deficient in Omega 3 fatty acid don't use their food for energy efficiently and store energy easy.** These fats are necessary for brain development, brain function, and emotional health.

The best sources of omega 3 fatty acids are flaxseed, hemp seed, chia seed and fish oil. Pumpkin seeds, walnut oil, and soy oil all contain omega 3 fatty acids but only in small amounts, ranging from about 3 to 15 percent.

Functions of Omega 3 Fatty Acids

- a. They increase metabolic rate;

- b. They increase transfer of oxygen throughout the body;
- c. They help burn fat more efficiently;
- d. They help keep cell membranes from becoming rigid – flexible cell membranes allow for more effective nutrient transfer;
- e. They lower cholesterol and triglyceride levels;
- f. They are necessary for brain development, brain function and emotional health;
- g. They help reduce inflammation, swelling and pain;
- h. They help reduce severity of allergic reactions;
- i. They enhance kidney function and fluid balance;
- j. They support healthy blood pressure and heart function;
- k. They improve gastrointestinal function,
- l. They produce smooth velvety skin;
- m. They keep blood healthier by decreasing clot formation, keeping blood thinner and running smoother through veins. This increases the clearing of waste products from blood and increases nutrient delivery.

2. Omega 6 Fatty Acids

The best sources of omega 6 fatty acids are sunflower seeds, safflower oil, cottonseed oil, soy oil, corn oil, grape seed oil, and poppy seeds. Sesame seeds, peanuts, and rice bran oil are high in omega 6 and monounsaturated fats. Omega 6 fats have many of the same functions as Omega 3 fats. However, Omega 3 fats produce more health benefits than the Omega 6 fats.

II. Saturated fats – found in animal products (meat and dairy) and tropical oils (coconut and palm oils). Saturated fats are solid at room temperature, stable when heated and safe to use for cooking. Saturated fats from animal sources are hard to break down once they have been eaten and are sticky as they travel through the blood stream.

Animal fats eaten in excess are unhealthy. Choose lean cuts of meat. Cut fat off meat before cooking it. Choose low fat dairy products like skim milk, 1% milk, low fat cheese (mozzarella, Swiss), low fat yogurt and low fat cottage cheese.

Functions of Saturated Fats

1. They make up about 50 percent of our cell membranes and give them stability;
2. They help our bones incorporate calcium into our skeletal structure;
3. They protect the liver from toxins like alcohol and certain medications;
4. They are necessary for the body to be able to utilize essential fatty acids;
5. They support healthy immune function.

III. Cholesterol – found in animal products. It is also made in the body by the liver. Cholesterol is sticky and does not break down in the body. It is either used, eliminated or circulates in the bloodstream, sometimes in excess.

Functions of Cholesterol

1. Healing salve within the body;
2. Precursor to certain hormones (sex and steroids);

3. Vitamin D is made as a result of cholesterol;
4. It protects our skin and makes it water resistant;
5. It is a component of our lining on our nerves;
6. It is a component of bile acids (special acids that help the body break down fats we eat);
7. It is needed for the production of serotonin (mood elevated hormone);
8. It plays an important role in maintaining the health of the intestinal wall.

IV. Some types of fat damage our bodies and should be avoided.

1. Trans Fats (Hydrogenated Oils) – an unnatural fat produced by subjecting polyunsaturated fats to high temperatures and forcing hydrogen atoms onto the fatty acids to create a solid fat, like margarine. Trans fat are considered to be a bad fat and should be avoided.

Damaging Effects of Trans Fats (Hydrogenated Oils)

The body does not have an enzyme to break down trans fats. Omega 3 or omega 6 fatty acids are needed to clear trans fats from the body. Trans fats are harmful to our cell membranes when they are used for the building blocks of the cell membranes. They increase cholesterol levels and increase risk for heart disease. Trans fats increase insulin resistance and increase risk of developing diabetes. Trans fat blocks the utilization of essential fatty acids (omega 3 fat), causing many negative effects on the body including increased blood cholesterol, suppressed immune system, cancer, hardening of the arteries, diabetes, obesity and many more.

2. Deep fat fried foods are unhealthy foods. Oils are damaged when they are heated to high temperatures and become unhealthy fats. They have a similar effect on the body as do hydrogenated oils. Deep fat fried foods are high fat foods. The body only needs a small amount of fat each day. High fat intake is unhealthy for the body and is one thing that can cause an energy overload and get the body's energy balance out of whack. Some examples of foods that are deep fat fried include potato chips, corn chips, French fries, breaded meats, breaded seafood, breaded fish, and donuts.

3. Pan fried foods can be high in fat. When pan frying foods, use only a small amount of oil. Avoid eating pan fried foods. Sautéed fresh vegetables typically do not absorb much fat because they don't need much time to cook and it only takes a small amount of oil to sauté foods.

V. Seventeen Ways to Decrease Fat in Your Diet

1. Respect serving sizes of fats:
 - a. 1 teaspoon is the serving size for butter, margarine or olive oil;
 - b. 1 tablespoon is the serving size for creamy salad dressing, tartar sauce, mayonnaise, whipped cream, or sour cream.
2. Choose low-fat or non-fat dairy products:
 - a. Skim or 1% milk and non-fat yogurt;
 - b. Low-fat cheeses (no more than 3 grams of fat per ounce), and 1% fat cottage cheese;

- c. Low-fat sour cream and cream cheese;
3. White cheese is usually lower in fat than yellow cheese.
 4. Choose low-fat versions of your favorite salad dressing, tartar sauce and mayonnaise.
 5. Avoid fried foods like French fries, breaded meats and seafood, breaded deep fat fried vegetables, donuts, and other fried foods.
 6. Avoid high-fat desserts like ice cream, pastries, cookies, cakes and pies.
 7. Choose meat that has been baked, poached, grilled or broiled.
 8. Trim off all fat from meat and remove skin from poultry before eating it.
 9. Choose fish packed in water when buying canned fish like tuna or salmon.
 10. Choose lower fat luncheon meats, such as sliced turkey or chicken breast, lean ham, and lean sliced beef.
 11. Choose lean meats, fish and poultry.
 12. Try sprinkling lemon juice and herbs or spices on cooked vegetables instead of using cheese, butter, or cream-based sauces.
 13. Try plain, nonfat, or low-fat yogurt and chives on baked potatoes rather than sour cream.
 14. Avoid foods that contain trans fats or hydrogenated oils. Trans fats will be listed on the food label and hydrogenated oils will be listed in the ingredients list.
 15. Avoid oily snack foods like potato chips, corn chips, pork rinds, and buttered popcorn.
 16. Cut down on sauces and toppings like gravy, salad dressing, sour cream, butter, margarine, mayonnaise and whipped cream. Even small amounts of these foods can boost the fat content of your diet.
 17. Watch out for hidden fat in crackers, muffins and other snack foods. If in doubt, read the food labels.