

Healthy vs. Unhealthy Fats

Cholesterol and Triglycerides 101

Cholesterol is a substance produced by the liver that is used for several important functions in the body including creating cell walls, tissues, development of Vitamin D, hormones, and bile acids. Your liver and cells in your body produce about 80% of the cholesterol in your blood. Food brings in the other 20%. Foods high in trans and saturated fats contribute to bad levels of cholesterol. Below is a breakdown of the types of cholesterol and lipids and how they can affect our cardiovascular health:

- **HDL Cholesterol:** Considered the “Good Cholesterol”, HDL stands for High Density Lipoprotein. HDL removes cholesterol from arteries back to the liver to be removed by the body, preventing build-up of plaque and arteries.
- **LDL Cholesterol:** Considered the “Bad Cholesterol”, LDL stands for Low Density Lipoprotein. LDL Cholesterol contributes to the build of plaque and blockages in the arteries.
- **Triglycerides:** Triglycerides are a type of fat found in the bloodstream. Excess calories we eat that aren't used for fuel or energy are stored in the body as triglycerides. A build of triglycerides can contribute to hardening of the arteries and thickening of the arterial wall.

Age/Sex	Total Cholesterol	LDL Cholesterol	HDL Cholesterol	Triglycerides
Males (Adult)	• 125-200	• <100	• 40 or Higher	• <150 mg/dL
Females (Adult)	• 125-200	• <100	• 50 or Higher	• <150 mg/dL

Types of Fat and How it Affects our Cholesterol and Triglycerides

Healthy Fats

- **Monounsaturated fats**-can help lower bad cholesterol (LDL) as well as raise good cholesterol (HDL). Food sources include:
 - **Olives, safflower/canola/peanut/sesame oil, peanut butter, avocado, Some nuts and seeds, including almonds, hazelnuts, pecans, pumpkin seeds and sesame seeds.**
- **Polyunsaturated fats**-can help reduce LDL and oils high in polyunsaturated fats can often provide a source of antioxidant-rich vitamin E. Sources include:

- **Canola oil, sunflower, soybean, fatty fish (anchovies, herring, mackerel, cod, salmon, sardine, tuna), tofu/soybeans, walnuts, flax seeds, sunflower seeds**
- **Omega 3 Fatty Acids-** Omega 3 fatty acids are a type of polyunsaturated fat that have several health benefits including reducing risk of Cardiovascular disease by lowering triglycerides, raising HDL and lowering blood pressure. Types of Omega 3's include:
 - **EPA and DHA**-derived from marine sources of omega 3 fatty acids including **fatty fish like salmon, herring, mackerel, sardines, anchovies, tuna, trout**. These are more beneficial than plant sources of omega 3s as they are a direct source of EPA/DHA. The recommendation is 3 oz of fatty fish 2x/week.
 - **ALA**-an essential fatty acid meaning the body can't make it, therefore we must get them from the foods we eat. ALA is derived from plant sources of omega 3s such as **flaxseed, chias, walnuts, edamame, canola/soybean oil, and leafy vegetables**.

Unhealthy Fats

- **Saturated Fats**-Usually solid at room temperature. Over consumption can lead to an increased LDL level. Saturated fats are found mainly in animal products and some plant products such as coconut oil, coconuts, palm oil, and palm kernel oil
 - American Heart Association recommends getting <7% of total daily calories from saturated fats
 - **Sources include: pizza, cheese, butter, whole milk, heavy cream, dairy based desserts (icecream), meat such as sausage, bacon, hamburger meat, foods baked or fried in saturated fats such as french fries**
- **Trans Fats**-Trans Fats, often referred to as partially-hydrogenated vegetable oils, are made via a chemical process of adding hydrogen to vegetable oil. This causes them to be solid at room temperature, less likely to go rancid, and extend their shelf life.
 - Trans fats can withstand multiple reheatings and are inexpensive to produce, causing them to be used frequently in fast-food industry to make foods such as **fried foods (chicken, french fries), baked goods (biscuits, donuts, pie crusts, cakes, etc), processed snack foods (crackers, cookies, muffins), and margarine**.
 - Trans fats are also naturally found in beef fat and dairy fat in small amounts.
 - Trans fats are the worst type of fat for the heart and blood vessels as they can:
 - Raise LDL and lower good HDL
 - Create inflammation
 - Contribute to insulin resistance
 - It is recommended to reduce intake of Trans fats to at least <1% of total daily caloric intake.

Healthy Fat Swaps

- Use mashed avocado instead of mayonnaise in chicken/tuna/egg salad
- Use canola, olive, avocado, safflower, or corn oil in place of butter for cooking
- Instead of cheese and croutons, add nuts and seeds to your salad
- Use ground turkey or chicken in place of ground beef for hamburgers and pasta dishes
- Grill salmon/tuna or chicken/turkey sausages at your BBQ instead of hamburgers or hotdogs
- Try almond milk in your coffee and tea over half and half, whole milk, or heavy cream
- Replace butter with Greek yogurt, applesauce, or pureed pumpkin in baked goods