

Facts on Cholesterol and Fat

Lipid lab results are used to assess your risk for heart disease. The LDL cholesterol is the artery clogging type. The HDL cholesterol helps keep arteries clean. Triglycerides are similar to oils. See the definitions on the next page for more information. The goal is to have lower levels of LDL and triglycerides, but higher levels of HDL. Discuss your results and targets with your health care provider.

Lipid Type	Goal Level
Total Cholesterol	under 200
LDL Cholesterol	under 100 under 70 if you have diabetes or a higher risk of heart disease
Triglycerides	under 150
HDL Cholesterol	above 40 for men above 50 for women

Factors that increase your risk for heart disease:

- Age
 - Males over the age of 45
 - Females over the age of 55
- Family history of heart disease
- Smoking
- High blood pressure
- Diabetes
- HDL Cholesterol under 40
- Elevated LDL Cholesterol
- Elevated Total Cholesterol
- Obesity
- Lack of exercise

Factors that lower your risk of heart disease:

- HDL Cholesterol over 60
- Consistent exercise
- Weight control
- Diet low in saturated fat and trans fat
- Diet high in soluble fiber

Definitions

Cholesterol

Cholesterol is a fatlike substance made by the liver. Cholesterol plays an important role in cell membrane structure. Our body also uses cholesterol to make bile, hormones, and vitamin D. Sometimes the liver makes too much cholesterol, which can be related to diet or genetics.

LDL Cholesterol

Low density lipoprotein (LDL) carries cholesterol through the bloodstream and drops it off where needed. High levels of LDL can cause plaques to form on the blood vessel walls. LDL cholesterol is sometimes called the bad cholesterol because it can clog arteries.

HDL Cholesterol

High density lipoprotein (HDL) picks up cholesterol from the arteries and brings it back to the liver for reprocessing or removal. HDL is referred to as good cholesterol because it helps keep blood vessels clean.

Triglycerides

Triglycerides are oils that travel in the bloodstream along with cholesterol. High triglyceride levels increase your risk of heart disease and stroke. If you eat more than you need your body will convert the excess calories into triglycerides. Extremely high blood levels of triglycerides can damage your pancreas. Excess intake of refined grains, sugars, fat, and alcohol can all lead to high triglycerides.

Dietary Cholesterol

Cholesterol is found in all foods from animal sources: meat, fish, poultry, eggs, and dairy products. Some animal foods have large amounts of cholesterol, while others only have small amounts. Dietary cholesterol has less effect on your blood cholesterol levels than saturated fats have.

Saturated Fats

Saturated fats tend to be solid at room temperature and tend to be in animal products. Examples include lard, bacon, meat fats, chicken skin, butter, cream, ice cream, milk fat, and cheeses. Tropical oils such as coconut and palm oils are also saturated fats. Eating too much saturated fat can raise your blood cholesterol levels, which in turn increases your risk of heart disease.

Hydrogenated Fats and Trans Fats

Hydrogenation is process that turns liquid oils into semi solid or solid fats. Examples include shortening and margarine. Trans fats can form when oils are hydrogenated. These are especially bad for heart health. They lower the heart-healthy HDL and increase the artery clogging LDL. Nutrition Facts food labels list the amount of trans fat. Keep in mind the product can say 0 grams of trans fat if the amount is less 0.5 grams. To limit intake of trans fats, read the ingredients lists on packaged foods. Avoid, or limit portion sizes of foods made with hydrogenated and partially hydrogenated oils.

Polyunsaturated Fats

Polyunsaturated fats are a heart healthy choice. Polyunsaturated fats are found in vegetable oils that are liquid at room temperature. Oils such as safflower, corn, soybean, and sunflower oils are examples. Using polyunsaturated fats in place of saturated and hydrogenated fats may improve your LDL levels. However, excess intake of these oils may lower your levels of the healthy HDL cholesterol.

Monounsaturated Fats

Monounsaturated fats are heart healthy. Examples include olive oil, peanut oil, canola oil, avocado, and nuts. Replacing saturated fats in the diet with monounsaturated fats can help lower LDL without lowering the HDL. This makes monounsaturated fats an excellent choice.

Omega-3 Fatty Acids

Omega-3 fatty acids help protect against high blood pressure, heart disease, and stroke. They lower blood triglycerides and LDL, while raising HDL. Omega-3 fats also help prevent blood clots. To boost your intake, choose fatty fish such as salmon, albacore tuna, mackerel, herring, sardines, sea bass, lake trout, and halibut. Vegetarian sources include flaxseeds, chia seeds, walnuts, soybeans, tofu, and soy-based foods.

Tips to Reduce your Risk of Heart Disease

♥ **Manage Your Weight**

If you are overweight, weight loss can improve cholesterol and blood pressure levels. Weight control reduces your risk of heart disease and other illnesses.

♥ **Control Portion Sizes**

Eating more than you need leads to weight gain. Use smaller plates, bowls, and glasses. Fill half of your plate with vegetables, they are low in calories. Use your hand to guide serving sizes: meat the size of your palm and starch the size of your clenched fist. Choose fruit instead of fruit juice. Oils, avocados, and nuts are heart healthy, but high in calories. Eat those in moderation.

♥ **Limit intake of Saturated, Hydrogenated, and Trans Fats**

These fats are the key dietary culprits in heart disease. They can increase LDL levels and can block arteries. Cut back on the fats found in meats and dairy products. Keep selections healthy by opting for leaner, nonfat, and low fat versions.

♥ **Manage Triglyceride Levels**

If you have high blood triglyceride levels then cut back on sugars and sweets. Limit white bread, white rice, and other refined grains. Choose wholesome whole grains instead. Limit or avoid alcohol. Weight control and exercise also help. In some cases of very high triglycerides, you may need to follow a low fat diet.

♥ **Eat More Soluble Fiber**

Soluble fiber helps to lower LDL levels in the blood. Increase your intake of oats, barley, and legumes. Examples of legumes include black beans, kidney beans, garbanzo beans, navy beans, pinto beans, split peas, and lentils. Aim to eat at least five servings per day from a variety of fruits and vegetables.

♥ **Exercise**

Exercise helps in many ways. It raises HDL, the good kind of cholesterol. Exercise also lowers the unhealthy LDL cholesterol and triglyceride levels. Exercise improves blood pressure and is a key to controlling your weight. The goal is 150 minutes of moderate exercise weekly. That is about 30 minutes per day, 5 days per week.

♥ **Do Not Smoke**

Smoking is a strong risk factor in heart disease and other serious illnesses.

Heart Healthy Diet Tips

- ✓ Choose a diet rich in vegetables and fruits.
- ✓ Make at least half of your grain and bread selections whole grain.
- ✓ Try brown rice, wild rice, quinoa, barley, buckwheat, farro, and whole oats.
- ✓ Add kidney or garbanzo beans to salad. Scoop hummus with carrots.
- ✓ Include 8-12 ounces of fish per week to boost omega-3 intake.
- ✓ Limit solid fats such as butter, shortening, stick margarine, and lard.
- ✓ Read ingredient lists and avoid foods made with hydrogenated oils.
- ✓ Use heart healthy oils including olive, canola, peanut, and vegetable oils.
- ✓ Include nuts, seeds, and nut butters in moderation.
- ✓ Choose lean cuts of meat such as loin and round. Avoid marbled meats.
- ✓ Trim all visible fat from meat and remove skin from poultry.
- ✓ Avoid fatty meats such as bacon, sausage, ribs, salami, and hotdogs.
- ✓ Try vegetarian protein options for meat-free meals.
- ✓ Use nonfat and low fat dairy products.
- ✓ Limit full fat cheeses, cream cheese, and sour cream. Choose reduced fat.
- ✓ Pick broth-based soups instead of creamed soups.
- ✓ Use tomato sauce in place of cream sauce with your pasta.
- ✓ Reduce use of tropical oils including coconut and palm.
- ✓ Use low fat cooking methods: grill, steam, boil, bake, sauté, and microwave.
- ✓ Limit deep-fried foods.
- ✓ Cut down or cut out fast food dining.
- ✓ Limit sweets and desserts.
- ✓ Avoid sugar-sweetened beverages.
- ✓ Instead of adding salt, use herbs, spices, and salt-free seasonings.
- ✓ Cut down on processed foods. Choose those with no-added-salt or low sodium.