

Diagnosis: High Cholesterol

What is it?

Cholesterol is a substance found in your blood that is used by your body to build cells. Most of the cholesterol in the body is produced in the liver and some comes from the food that we eat.

Cholesterol has many necessary functions including hormone production, production of bile, absorption of certain nutrients and vitamins, formation of cell walls, and insulation of nerves. When the levels are too high it's possible to develop deposits in blood vessels which, as they get larger, can restrict blood flow. These deposits can also break off suddenly and form a clot which can cause a heart attack or stroke.

There are two main types of cholesterol:

High-density lipoprotein (HDL): Sometimes called “good cholesterol,” it returns cholesterol to your liver allowing it to be removed from your body. It's believed that higher levels of HDL cholesterol may lower health risks associated with high cholesterol.

Low-density lipoprotein (LDL): Sometimes called “bad” cholesterol, high levels can cause blood vessel deposits that can restrict blood flow or cause clots.

What causes it?

Genetics

Cholesterol levels are extremely heritable. Most people with high LDL cholesterol have a genetic abnormality. Familial Hypercholesterolemia is a common type of heritable high cholesterol that occurs in 1 out of 300 people worldwide, and 1 out of 30 people with coronary artery disease.

Genetics can also cause high levels of lipoprotein-a (Lp(a)) which can increase the risk of heart or blood vessel diseases regardless of other cholesterol levels. Your genes control your levels of Lp(a) and they don't tend to change over time.

Polycystic Ovarian Syndrome (PCOS)

PCOS is a common genetic condition that causes abnormalities of hormones and metabolism, including high cholesterol.

Age and Gender

As you age, your liver can become less effective at removing cholesterol. For those who go through menopause, it lowers the levels of hormones that can be protective against high cholesterol. Post-menopause, LDL can rise and HDL can fall.

Medications

There are multiple medications that can increase cholesterol levels, including steroids, retinoids used for acne, anti-psychotics, and diuretics and beta-blockers used for blood pressure maintenance. Cholesterol levels should be monitored regularly while on these medications.

How is it diagnosed?

Cholesterol is typically measured using a blood test known as a “lipoprotein profile” or “lipid panel” which evaluates:

- LDL
- HDL
- Triglycerides (level of fat in the blood)
- Total Cholesterol level

Cholesterol levels are categorized for adults as follows:

Category	Total Cholesterol	HDL Cholesterol	LDL Cholesterol	Triglycerides
Low	n/a	Less than 40 (<40)	Less than 50 (<50)	n/a
Normal	Less than 200 (<200)	Ideal: 60 or higher (≥ 60) Acceptable: 40 or higher for men (≥ 40) 50 or higher for women (≥ 50)	Less than 130 (<130)	Less than 150 (<150)
Borderline to Moderately Elevated	200-239	n/a	130-159	150-199
High	240 or higher (≥ 240)	60 or higher (≥ 60)	160 or higher (≥ 160)	200 or higher (≥ 200)

Fatphobia and Body Weight in Diagnosis

Despite what we know about the extremely strong genetic factor of high cholesterol, there is a tendency to make the mistake of blaming cholesterol levels entirely on personal habits (especially eating and fitness habits). Further, healthcare providers (HCPs) often make assumptions about the eating and fitness habits of fat patients and then make recommendations based on their assumptions rather than accurate information, or simply recommend weight loss, which we know isn't an ethical, evidence-based intervention. You can read more about why we don't recommend weight loss here: <https://haeshealthsheets.com/why-we-dont-recommend-intentional-weight-loss/>

So you have High Cholesterol. How is it treated?

Stress Management

Chronic stress (including the stress of being part of a marginalized group) can increase LDL and decrease HDL. To the extent it's possible, managing stress can be helpful. This can take many forms from meditation to therapy. We recommend working with a qualified mental health practitioner.

Quit/Decrease Cigarette Smoking

Cigarette smoking increases LDL and lowers HDL cholesterol.

Decrease Alcohol Consumption

Drinking alcohol can raise LDL and lower HDL levels.

Food Choices

Food can be used to support your body in lowering LDL and increasing HDL cholesterol, including things like increasing your consumption of whole grains, omega-3 fatty acids, nuts, and vegetables. Though LDL cholesterol may lower in the short-term with dietary changes, there is limited evidence that dietary changes actually decrease the risk of heart attack and stroke. It is important to keep in mind that since cholesterol levels are primarily determined by genetics, cholesterol levels may not change significantly in the long term, even with changes in nutrition and eating habits.

Also of note, cholesterol levels often increase when individuals severely restrict food intake, which we see, for example, in people with anorexia nervosa. Please note that nutrition is a young and developing science and we recommend working with a qualified HAES dietitian around this, especially to avoid potentially triggering food restriction discussions. You can find a list of HAES providers on our Resources page: <https://haeshealthsheets.com/resources/>

Sleep

During sleep your body heals and repairs your blood vessels and heart, so getting enough rest can help support your body.

Physical Activity

Research has shown that physical activity can lower LDL cholesterol and raise HDL cholesterol. The typical recommendation is about 30 minutes about 5 days a week (which can be broken down into smaller increments), but this may vary based on your particular situation. Any movement may have health benefits. If you are considering increasing your physical activity, check in with your HCP to ensure that it is safe for you.

Medications

There are a range of medications that may be prescribed to help manage cholesterol levels.

Note: If you have a family history of early heart or blood vessel disease, you may want to request a more comprehensive cholesterol panel that includes a Lp(a) test, LDL particle size, and a high-sensitivity cardiac CRP test. If you have a high Lp(a) level, your doctor may prescribe medication (typically a statin) to prevent heart and blood vessel disease, even if your other cholesterol levels are in the healthy range.

These tests are also helpful for people with high cholesterol levels and an intermediate risk of cardiovascular disease in whom the benefit of medication is unclear. The decision to start a medication is based on your cholesterol levels and your personal risk of cardiovascular disease. This takes into account any history of diabetes, high blood pressure, family history of heart disease, and smoking history.

Finally, remember to always ask your HCP about possible side effects and drug interactions.

Statins are the most commonly prescribed medications. They decrease the production of cholesterol by the liver and are the only drugs that have been shown to reduce the risk of heart attack and stroke.

PCSK9 inhibitors are often prescribed with statins to patients at high risk of complications, with or without a family history of high blood pressure, or in those who cannot tolerate a statin.

Bile acid sequestrants are often prescribed if statins cause side effects or aren't effective enough.

Cholesterol absorption inhibitors decrease the amount of cholesterol absorbed from food.

Nicotinic acid (niacin) lowers LDL and triglycerides and raises HDL. Given the limited beneficial effects and potential dangerous side effects of niacin, it should only be taken under the advice of a qualified HCP

Ezetimibe is often prescribed for those for whom statins cause side effects, or can be added to a statin if LDL levels do not reach goal levels.

Omega-3 fatty acid supplements are used for treating high triglycerides.