



Patient education: High cholesterol (The Basics)

Written by the doctors and editors at UpToDate

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What is cholesterol?

Cholesterol is a substance found in blood. Everyone has some. It is needed for good health. But people sometimes have too much cholesterol.

Compared with people with normal cholesterol, people with high cholesterol have a higher risk of heart attack, stroke, and other health problems. The higher your cholesterol, the higher your risk of these problems.

Are there different types of cholesterol?

Yes, there are a few different types. If you get a cholesterol test, you might hear your doctor or nurse talk about:

- Total cholesterol
 - LDL cholesterol – Some people call this the "bad" cholesterol. That's because having high LDL levels **raises** your risk of heart attack, stroke, and other health problems.
 - HDL cholesterol – Some people call this the "good" cholesterol. That's because people with high HDL levels tend to have a **lower** risk of heart attack, stroke, and other health problems.
 - Non-HDL cholesterol – Non-HDL cholesterol is your total cholesterol minus your HDL cholesterol.
 - Triglycerides – Triglycerides are not cholesterol. They are another type of fat. But they often get measured when cholesterol is measured. (Having high triglycerides also seems to increase the risk of heart attack and stroke.)
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What should my numbers be?

Ask your doctor or nurse what your numbers should be. Different people need different goals. If you live outside of the US, see the table ([table 1](#)).

In general, people who do not already have heart disease should aim for:

- Total cholesterol below 200
- LDL cholesterol below 130, or much lower if they are at risk of heart attack or stroke
- HDL cholesterol above 60
- Non-HDL cholesterol below 160, or lower if they are at risk of heart attack or stroke
- Triglycerides below 150

Remember, though, that many people who cannot meet these goals still have a low risk of heart attack and stroke.

What should I do if I have high cholesterol?

Ask your doctor what your **overall** risk of heart attack and stroke is. Just having high cholesterol is not always a reason to worry. Having high cholesterol is just one of many things that can increase your risk of heart attack and stroke.

Other things that increase your risk include:

- Smoking
- High blood pressure
- Having a parent or sibling who got heart disease at a young age – Young, in this case, means younger than 55 for males and younger than 65 for females.
- A diet that is not heart healthy – A "heart-healthy" diet includes lots of fruits and vegetables, fiber, and healthy fats (like those found in fish, nuts, and certain oils). It also means limiting sugar and unhealthy fats.
- Older age

If you are at high risk of heart attack and stroke, having high cholesterol is a problem. But if you are at low risk, high cholesterol might not need treatment.

Should I take medicine to lower cholesterol?

Not everyone who has high cholesterol needs medicines. Your doctor or nurse will decide if you need them based on your age, family history, and other health concerns.

There are many different medicines used to lower cholesterol ([table 2](#)). Some help your body make less cholesterol. Some keep your body from absorbing cholesterol from foods. Some help your body get rid of cholesterol faster. The medicines most often used to treat high cholesterol are called "statins."

You should probably take a statin if you:

- Already had a heart attack or stroke
- Have known heart disease
- Have diabetes
- Have a condition called "peripheral artery disease," which makes it painful to walk, and happens when the arteries in your legs get clogged with fatty deposits
- Have an "abdominal aortic aneurysm," which is a widening of the main artery in the belly

Most people with any of the conditions listed above should take a statin no matter what their cholesterol level is. If your doctor or nurse prescribes a statin, it's important to keep taking it. The medicine might not make you feel any different. But it can help prevent heart attack, stroke, and death.

If your doctor or nurse recommends taking medicine to help lower your cholesterol, make sure that you know what it is called. Follow all the instructions for how to take it. For example, some medicines work better when you take them in the evening. Some need to be taken with food.

Tell your doctor or nurse if your medicine causes any side effects that bother you. They might be able to switch you to a different medicine.

Can I lower my cholesterol without medicines?

Yes. You can help lower your cholesterol by doing these things:

- You can lower your LDL, or "bad," cholesterol by avoiding red meat, butter, fried foods, cheese, and other foods that have a lot of saturated fat.
- You can lower triglycerides by avoiding sugary foods, fried foods, and excess alcohol.
- If you have excess weight, it can help to lose weight. Your doctor or nurse can help you do this in a healthy way.

- Try to get regular physical activity. Even gentle forms of exercise, like walking, are good for your health.

Even if these steps don't change your cholesterol very much, they can improve your health in many other ways.

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GRAPHICS

Cholesterol and triglyceride measurements in the US and elsewhere

	Measurement used within the US Milligrams/deciliter (mg/dL)	Measurement used most places outside of the US Millimoles/liter (mmol/Liter)
	Level to aim for	Level to aim for
Total cholesterol	Below 200	Below 5.17
LDL cholesterol	Below 130, or much lower if at risk of heart attack and stroke	Below 3.36, or much lower if at risk of heart attack and stroke
HDL cholesterol	Above 60	Above 1.55
Triglycerides	Below 150	Below 1.7

Cholesterol is measured differently in the US than it is in most other countries. This table shows values used within and outside of the US. It includes the cholesterol and triglyceride levels that most people who do not have heart disease should aim for.

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Lipid-lowering medicines

Generic name	Brand name
Statins	
Atorvastatin	Lipitor
Fluvastatin	Lescol, Lescol XL
Lovastatin	Mevacor, Altoprev
Pitavastatin	Livalo
Pravastatin	Pravachol
Rosuvastatin	Crestor
Simvastatin	Zocor
PCSK9 inhibitors	
Alirocumab	Praluent
Evolocumab	Repatha, Repatha SureClick
Cholesterol absorption inhibitors	
Ezetimibe	Zetia
Bile acid sequestrants	
Cholestyramine	Prevalite, Questran, Questran Light
Colesevelam	Welchol
Colestipol	Colestid
Niacin (nicotinic acid)	
Niacin immediate release	
Niacin extended release	Niaspan
Fibrates	
Fenofibrate	Fenoglide, Tricor, Triglide, others
Gemfibrozil	Lopid

Brand names listed are for medicines available in the US and some other countries.

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