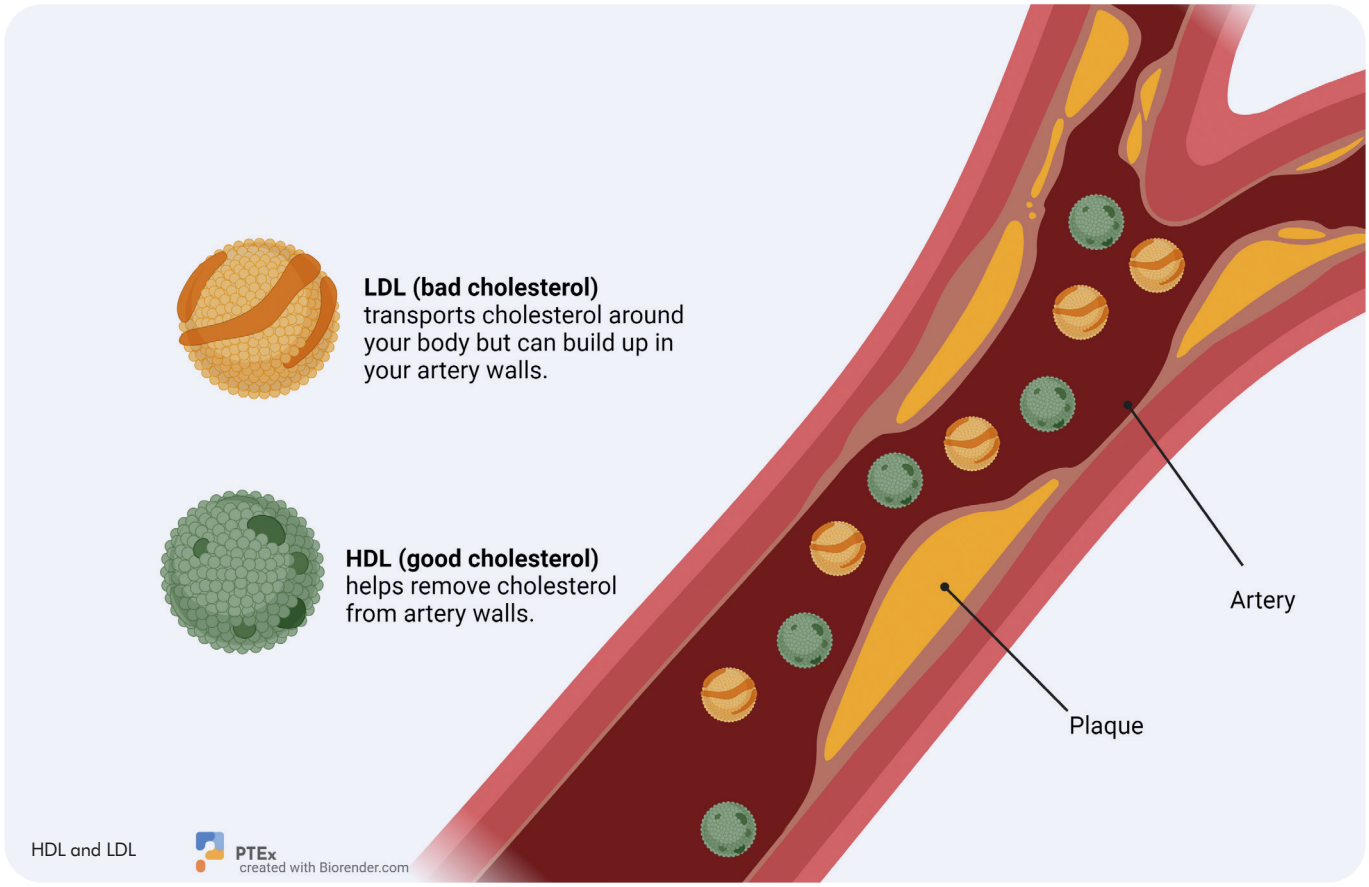
PATHOLOGY TESTS EXPLAINED

Information about pathology tests to help everyone take control of their health and make the right decisions about their care.

WHAT YOU SHOULD KNOW ABOUT YOUR **CHOLESTEROL TESTS**

Cholesterol tests are blood tests that can help find out if you are at risk of developing heart disease or stroke.

Cholesterol is a type of sticky fat, rather like candle wax, that performs a range of important functions in the body. We cannot live without cholesterol. It is found in every cell in our body and involved in a whole host of vital processes. It's so important that the body has developed many complex systems to make sure we have enough. However, high amounts of cholesterol can present health problems.



HDL and LDL – the good and the bad

Cholesterol is carried around the bloodstream in lipoproteins. There are several types of lipoproteins, but the main ones are High-Density Lipoprotein (HDL) sometimes called 'good' cholesterol and Low-Density Lipoprotein (LDL) or 'bad' cholesterol.

All cholesterol is the same – it's the lipoproteins that carry it that are different. When cholesterol is carried by HDL it is called HDL–cholesterol and when it is carried by LDL it is called LDL–cholesterol.

- Low-density lipoprotein (LDL) deposits cholesterol into blood vessel walls causing plaques to form. By lowering LDL it's possible to reduce the cholesterol inside plaques.
- High-density lipoprotein (HDL) helps remove cholesterol from artery walls. Having a normal HDL level is important.

How plaques form

LDL–cholesterol sticks together with other fats, cells, calcium and debris floating around in the bloodstream and forms plaques in the walls of arteries. The build-up of plaque narrows the space within the artery.

Over time, a tough, fibrous cap or scar forms over the soft sticky plaque and if this breaks open – say, if your blood pressure spikes – a blood clot forms over the rupture. This blocks the blood flow which can lead to a heart attack or stroke. There are different types of plaques. Some grow slowly and may never cause problems, even when the plaque is large enough to restrict blood flow through the artery.

The most dangerous type of plaque is an unstable plaque. In these plaques, the cap on top of the sticky plaque becomes thin and weak, which makes it more likely to burst. Most heart attacks occur when small plaques break open.

By reducing cholesterol from the plaques, you can reduce your risk of heart attack or stroke. It's possible to do this by lowering the LDL travelling around in your blood.

What can your results tell you?

Total cholesterol is sometimes measured alone but more often in combination with HDL–cholesterol, LDL–cholesterol, and triglycerides in what is called a Lipid Profile. Triglycerides are another type of fat carried in lipoproteins that also contributes to hardening of the arteries.

The cholesterol levels measured in your blood will be considered along with other risk factors such as high blood pressure and smoking, to assess your cardiovascular risk (risk of heart attack or stroke). This overall assessment will be used to decide whether you need further treatment in the form of lifestyle changes such as diet and exercise, or drugs to lower your cholesterol levels.

If your results are higher than they should be, a second blood sample should be taken at a later date before you are given a diagnosis, as levels may change between tests.

Inherited high cholesterol levels - FH

About 1 in 250 people have a genetic change that increases their risk of having high LDL-cholesterol which puts them at a greater risk of heart disease earlier in life. This is called Familial Hypercholesterolaemia (FH). There is a separate Pathology Tests Explained information sheet on FH.

To fast or not to fast?

Non-fasting lipids testing is preferred by many labs. However, fasting for 8 – 12 hours may be required before a repeat test to confirm abnormal results. Only water is permitted.

Questions to ask your doctor

Why does this test need to be done?

Do I need to prepare (such as fast or avoid medications) for the sample collection?

Will an abnormal result mean I need further tests?

How could it change the course of my care?

What will happen next, after the test?

For more detailed information on these and many other tests go to **pathologytestsexplained.org.au**

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www.pathologytestsexplained.org.au

Please use this QR code to access more information

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Pathology Tests Explained is managed by a consortium of medical and scientific organisations representing pathology practice in Australia. More details at: **www.pathologytestsexplained.org.au/about**

My Health Record

You'll find a direct link to the Pathology Tests Explained website embedded in the pathology results pages of your My Health Record and the my health app.

Click on the link to find information about what your tests are investigating or measuring and what your results can tell your doctor.