

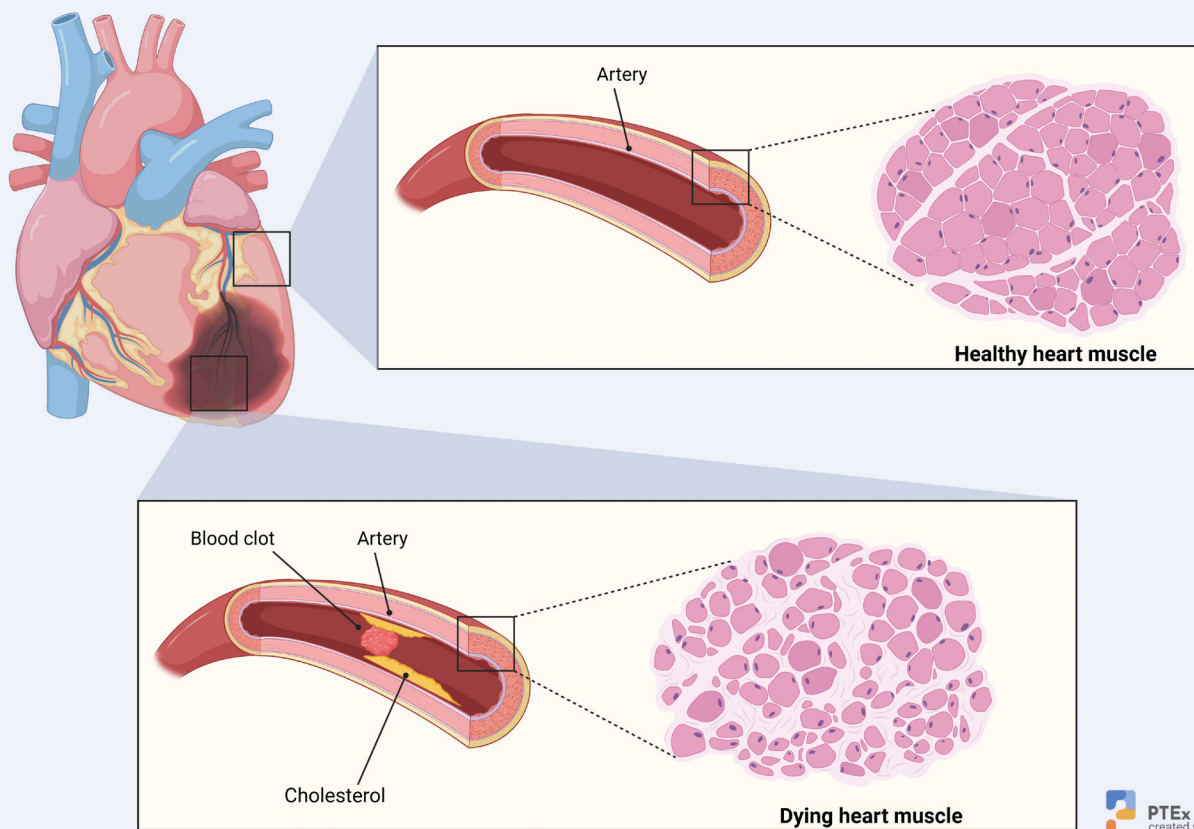


PATHOLOGY TESTS EXPLAINED

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 **TROPONIN TEST FOR HEART ATTACK**

If you're unlucky to find yourself in the emergency department with a suspected heart attack, the high-sensitivity troponin blood test can quickly help show if you've had one.



PTE_x
created with Biorender

Dying muscles release troponin



Your heart is a muscle that pumps blood throughout your body. Your blood carries oxygen which is needed by your body all the time. For your heart to function properly, it must have a continuous supply of blood. In a heart attack (or myocardial infarction), one of the arteries supplying blood to your heart becomes blocked. This means the blood flow is limited or stopped entirely, the heart muscle cells are starved of oxygen, and they start to die. The longer the blockage is left untreated the more damage occurs.

Troponins are proteins found in your heart muscle cells – they help the muscle contract. When these cells are injured, troponins leak out into the bloodstream. By measuring the levels of troponins in your blood, your emergency doctors can assess the damage to your heart. A high sensitivity troponin test can detect very low levels of troponin and diagnose a heart attack very quickly.



How troponin levels rise and fall

Normally, troponin levels are very low in healthy people. Any rise can indicate some heart damage.

They go up dramatically if you have a heart attack. The more damage there is, the greater the concentration of troponin in the blood. Levels usually rise within three or four hours, and then they start to fall back again. They can stay higher than normal for 10 to 14 days.

Usually, you can expect to have troponin tests repeated over several hours to monitor your troponin levels. The rise or fall in troponin levels is important in working out whether you've had a heart attack or whether it is due to another problem.

If you have a big rise in troponin levels, then it is highly likely that you've had a heart attack or some other form of heart damage.

Some people have higher troponin levels, and their levels don't change. This is sometimes seen in other heart problems such as myocarditis (heart inflammation), weakening of the heart (cardiomyopathy), or congestive heart failure. Some conditions elsewhere in the body such as severe infections and kidney disease can also cause higher troponin levels.

Because troponin can rise due to problems other than a heart attack, a troponin test on its own can't make the diagnosis and your doctors will do a physical examination and an ECG at the same time.

The test is not generally affected by damage to muscles other than the heart, so for instance, injections into arm muscles and accidents or drugs that damage muscles don't normally affect troponin levels.



What happens next?

Your emergency team will make treatment decisions based on your results. If your troponin levels are high and the ECG indicates an acute heart attack, you may need to have a procedure such as a catheterisation with angioplasty and possible stents, or else you may need to have surgery. If your troponin levels are high but your ECG does not indicate a heart attack, your doctors will look at alternative causes.



What causes chest pain?

By far the largest number of people who come to an emergency department have symptoms that may be a heart attack. Thankfully, after they are investigated, only a very small percentage actually have a heart attack.

Many other problems can cause chest pain, and it is not always possible to tell just from the type of chest pain whether or not you are having a heart attack. Many people have chest pain from straining the muscles in their chest, and it can occur with some lung problems. Chest pain can be a warning sign of hardening of the arteries of the heart called coronary artery disease (CAD). It's important you seek immediate medical attention if you have chest pain that doesn't go away.



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



PATHOLOGY TESTS
EXPLAINED

www.pathologytestsexplained.org.au

Pathology Tests Explained is the primary national source of consumer information on pathology testing. Information is written and edited by practising pathologists and scientists, including leading experts. This ensures integrity and accuracy.

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



Please use this QR code to access more information

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.