

# **PATHOLOGY TESTS**

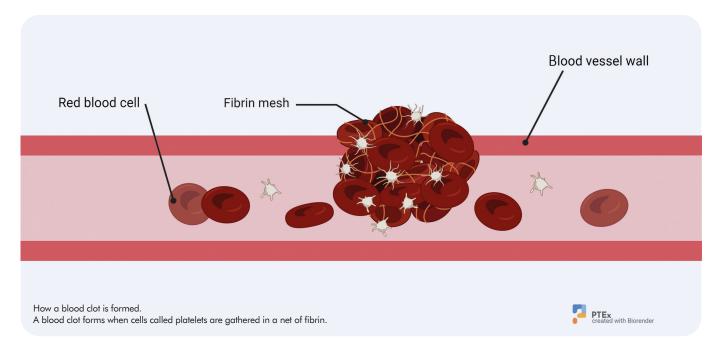
# EXPLAINED

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 **D-DIMER TEST**

A D-dimer tests is ordered along with other lab tests and imaging scans to help rule out, diagnose, and monitor a range of blood clotting conditions.

It does this by measuring D-dimer in the blood. It is a quick test to do and is often used as a first-line test to rule out clotting conditions. If you have a positive D-dimer test result you will need other tests to find out the cause. If you have a negative result, it is unlikely that you have abnormal blood clotting.





#### What is D-dimer?

D-dimer is part of one of the proteins that are found in your blood when a blood clot is dissolved. It is normally undetectable and only seen when a clot is breaking down.

#### How a clot is formed

Clotting is a normal part of healing. When you have an injury and it starts to bleed, your body triggers a sequence of clotting steps to create a blood clot and plug the hole. To do this, threads of a protein called fibrin are produced. These threads are glued together to form a fibrin net that catches platelets – cells that circulate in the blood – and helps hold them together to form a clot. Once the area has healed, the clot breaks down into small pieces so that it can be disposed of. The fragments of the fibrin in the clot are called fibrin degradation products (FDP). One of these FDPs is D-dimer.

## When blood clots become a problem

DVT (deep vein thrombosis) is clotting that occurs in the deep veins of the body, mostly in the legs. These clots can block blood flow and it's possible for a piece to break off and travel, causing a blood clot in the lungs, called a pulmonary embolus (PE).

Clots in coronary arteries are the cause of heart attacks. They can also form on the lining of the heart or its valves, especially when the heart is beating irregularly (atrial fibrillation) or when the valves are damaged. Clots can form as a result of hardening of the arteries. Pieces can break off and cause a blockage in an artery in another part of the body such as the brain, causing a stroke, or the kidneys.



#### How is the D-dimer test used?

D-dimer is especially useful when your doctor thinks that something other than a major blood clot is causing your symptoms. It is a quick, non-invasive way to help rule out clotting, especially if you are considered to be at low risk.



### What can your results tell you?

D-dimer results may be given as positive or negative, or they may be expressed as a number.

- A negative D-dimer test result means that it is most likely that you do not have an acute condition that is causing abnormal clotting.
- A positive D-dimer result indicates abnormal clotting in the body, but it does not show the location or cause. Other tests will be needed to check for that.



## What happens next?

D-dimer is recommended as an additional test. In other words, it should not be the only test used.

Both increased and normal D-dimer levels may require follow-up and can lead to further testing. If you have a positive result, more than likely your doctor will order a non-invasive scanning procedure, such as a venous ultrasound.

Even if you have a blood clotting disorder, you will probably only need treatment when a blood clot develops. Anticoagulant drugs help prevent additional clots because they decrease the blood's ability to clot. It is important to talk with your doctor about what your results mean.



#### 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



#### www.pathologytestsexplained.org.au

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