# **Protein S (Blood)**



#### What is this test?

This test measures levels of protein S in the blood. This protein helps prevent blood clots. Protein S works along with another protein in the blood, called protein C, to help your blood clot normally.

If you don't have enough protein S in your blood, you may have a rare condition called protein S deficiency. This means that your blood may clot too much. Protein S deficiency is often an inherited condition. This means you got an abnormal (mutated) gene from your parent. This gene affects how much protein S your body makes.

Protein S deficiency increases your risk for blood clots, including a serious condition called deep vein thrombosis (DVT). DVT causes dangerous blood clots to form in your arms or legs. These blood clots may travel throughout the body and settle in your lungs. A blood clot in the lungs (pulmonary embolism, or PE), can be life-threatening. Healthcare providers use the term venous thromboembolism (VTE) to describe the 2 conditions, DVT and PE. They use the term VTE because the 2 conditions are very closely related and because their prevention and treatment are closely related.

Protein S deficiency can be mild or severe. In severe forms of protein S deficiency, blood clots can form in small vessels all over the body and can be life-threatening.

## Why do I need this test?

You may need this test if you have had a blood clot or VTE, including a DVT or a PE. You may also need this test if one of your parents has a protein S deficiency, since the condition can be inherited.

## What other tests might I have along with this test?

You may need other tests, including a protein C test. Proteins C and S work together to help the blood clot normally.

### What do my test results mean?

Test results may vary depending on your age, gender, health history, and other things. Your test results may be different depending on the lab used. They may not mean you have a problem. Ask your healthcare provider what your test results mean for you.

#### How is this test done?

The test is done with a blood sample. A needle is used to draw blood from a vein in your arm or hand.

#### Does this test pose any risks?

Having a blood test with a needle carries some risks. These include bleeding, infection, bruising, and feeling lightheaded. When the needle pricks your arm or hand, you may feel a slight sting or pain. Afterward, the site may be sore.

### What might affect my test results?

Levels of protein S in the blood can be affected by surgery, pregnancy, and other health conditions.

Some medicines may affect your results. These include blood thinners (anticoagulants) and birth control pills.

## How do I get ready for this test?

You don't need to get ready for this test. Your healthcare provider will tell you if you need to stop eating or drinking in the hours before the test or skip any of your medicines on the day of the test.

Tell your healthcare provider if you are taking any medicines that can affect the way that your blood clots, such as warfarin. Your provider may tell you to stop taking this medicine for a time before the test. Be sure your healthcare provider knows about all other medicines, herbs, vitamins, and supplements you are taking. This includes medicines that don't need a prescription and any illegal drugs you may use.

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