

# Factor XII



## Does this test have other names?

Coagulation factor XII, F12, FA12-human, HAE3, HAEX, HAF, Hageman factor

## What is this test?

This test measures the amount of a protein called coagulation factor XII in your blood. A deficiency in factor XII is a rare bleeding disorder, but it causes abnormal clotting rather than bleeding.

Factor XII is part of a group of proteins that act in a specific order to create a blood clot after an injury. Factor XII is often called Hageman factor.

Factor XII floats freely in your bloodstream until it's needed. When factor XII comes in contact with the damaged wall of a vein, it activates coagulation factor XI. That interaction sets off a chain reaction called a coagulation cascade to form a blood clot. A clot keeps you from losing too much blood. Factor XII also stimulates inflammation and swelling. These are normal body responses to injury and infection.

The F12 gene is responsible for your body making coagulation factor XII. Mutations in this gene are involved with hereditary angioedema type III and factor XII deficiency.

Hereditary angioedema type III is an extremely rare disorder. Symptoms include severe swelling of the arms and legs, face, intestines, and airways.

Factor XII deficiency is an inherited disorder. It's usually discovered during routine blood testing. If you have a low level of coagulation factor XII and no other problems with the clotting process, you won't have problems with abnormal bleeding or forming blood clots when you are cut or injured. The deficiency is actually found in a blood test because a low level of factor XII causes your blood to take longer to coagulate in the test tube, even if this doesn't happen in your body.

Low levels of factor XII have been linked with thrombosis. Thrombosis means that a clot forms within a blood vessel and causes a partial or complete blockage. But healthcare providers aren't sure exactly how thrombosis is related to factor XII deficiency.

This test is usually done along with activated partial thromboplastin time test, which measures the clotting activity of several factors, including factor XII.

## Why do I need this test?

You may need this test if you've had recent bleeding. Or your healthcare provider wants to check your risk of bleeding before you have surgery.

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

Your healthcare provider may also order a prothrombin time test to look at specific factors in your coagulation cascade.

## 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.

Results are given as a percent of normal. Normal levels are 50% to 150% of normal clotting time, described in seconds of time, showing how long it takes your blood sample to clot.

Each factor must be present and working correctly in order to form a clot. A longer clotting time may mean that you have an inherited deficiency of factor XII.

## **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?**

Taking heparin or any other thrombin inhibitor will affect your results.

## **How do I get ready for this test?**

You don't need to prepare for this test. Be sure your healthcare provider knows about all 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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