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## Factor II (prothrombin) assay

The factor II assay is a blood test to measure the activity of factor II. Factor II is also known as prothrombin. This is one of the proteins in the body that helps the blood clot.

### How the Test is Performed

A blood sample is needed.

### How to Prepare for the Test

No special preparation is needed.

### How the Test will Feel

When the needle is inserted to draw blood, some people feel moderate pain. Others feel only a prick or stinging. Afterward, there may be some throbbing or slight bruising. This soon goes away.

### Why the Test is Performed

This test is used to find the cause of too much bleeding (decreased blood clotting). This decreased clotting may be caused by an abnormally low level of factor II, a disorder called factor II deficiency.

### Normal Results

The value should be 50% to 200% of the laboratory control or reference value.

Normal value ranges may vary slightly among different laboratories. Some labs use different measurements or may test different samples. Talk to your health care provider about the meaning of your specific test results.

### What Abnormal Results Mean

Decreased factor II activity may be the result of:

- Deficiency of factor II
- Disorder in which the proteins that control blood clotting become overactive (disseminated intravascular coagulation)
- Fat malabsorption (not enough fat absorbed in the diet)
- Liver disease (such as cirrhosis)

- Vitamin K deficiency
- Taking blood thinners

## Risks

There is little risk involved with having your blood taken. Veins and arteries vary in size from one person to another, and from one side of the body to the other. Obtaining a blood sample from some people may be more difficult than from others.

Other risks associated with having blood drawn are slight but may include:

- Excessive bleeding
- Fainting or feeling lightheaded
- Multiple punctures to locate veins
- Hematoma (blood accumulating under the skin)
- Infection (a slight risk any time the skin is broken)

This test is most often performed on people who have bleeding problems. The risk of excessive bleeding is slightly greater than for people without bleeding problems.

## Alternative Names

Prothrombin assay

## References

Pai M, Moffat KA. Laboratory evaluation of hemostatic and thrombotic disorders. In: Hoffman R, Benz EJ, Silberstein LE, et al, eds. *Hematology: Basic Principles and Practice*. 8th ed. Philadelphia, PA: Elsevier; 2023:chap 127.

Sarode R, Kessler CM. Coagulation and fibrinolysis. In: McPherson RA, Pincus MR, eds. *Henry's Clinical Diagnosis and Management by Laboratory Methods*. 24th ed. Philadelphia, PA: Elsevier; 2022:chap 40.

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