Midlands
Family
Medicine
....
let our family care for yours!

Education

Prothrombin Time Test (PT) and INR

What is the prothrombin time test?

The prothrombin time, or PT, test measures the time it takes your blood to form a clot. This test is also often called protime.

The results of the prothrombin time test may vary from lab to lab, so health care providers use a ratio called the INR (international normalized ratio) to be able to account for the differences.

Why is this test done?

The PT/INR is usually done to measure the effect of blood-thinning medicines (anticoagulants), such as warfarin (Coumadin).

If you have a medical condition such as atrial fibrillation or deep vein thrombosis, or have had a heart valve replaced, your blood is more likely to form clots. Clots can block blood vessels and possibly cause a heart attack or stroke. Your health care provider may prescribe a blood thinner to help prevent clots. It's very important to measure the effect of a blood thinner with this test. The medicine should keep the blood just thin enough to prevent clots. If the blood is too thin, you may bleed too easily.

The prothrombin time test may also be done if you have abnormal bleeding or clotting.

How do I prepare for this test?

- You may need to avoid taking certain medicines before the test because they might affect the test result. Make sure your health care provider knows about any medicines, herbs, or supplements that you are taking. Don't stop any of your regular medicines without first consulting with your health care provider.
- If you are taking warfarin (Coumadin), having different amounts of vitamin K in your diet from day to day can affect your test results and the Coumadin dosage that you need. For example, leafy green vegetables, such as spinach, and oils such as canola oil and soy bean oil, are some of the foods that have high amounts of vitamin K. If you are on warfarin, you should eat a healthy balanced diet with about the same amount of vitamin K each day. Follow your health care provider's instructions for your diet.

How is the test done?

A small amount of blood is taken from your arm with a needle. The blood is collected in tubes and sent to a lab.

Having this test will take just a few minutes of your time. There is no risk of getting AIDS, hepatitis, or any other blood-borne disease from this test.

How will I get the test result?

Ask your health care provider when and how you will get the result of your test.

What does the test result mean?

The normal PT range is 11 to 14 seconds. The normal range may vary slightly from lab to lab. Normal ranges are usually shown next to your results in the lab report.

A PT value **higher than normal** means your blood is taking longer than usual to form a clot. This prolonged PT

may happen if:

- You are taking warfarin.
- You have liver disease.
- You need more vitamin K.
- You have an inherited blood disorder.
- You have had a lot of heavy bleeding recently.

The normal value for the INR is 1.0

The INR is used to adjust the dose of warfarin. The desired INR will vary depending on what condition is being treated.

What if my test results are not normal?

Test results are only one part of a larger picture that takes into account your medical history and current health. Sometimes a test needs to be repeated to check the first result. Talk to your health care provider about your result and ask questions.

If your test results are abnormal, ask your health care provider:

- if you need additional tests
- what you can do to work toward a normal value
- when you need to be tested again.