Your Test: Prothrombin Time and INR

The prothrombin time (PT) test, also called an INR test, checks how long it takes your blood to clot. Your doctor may use the test to check for bleeding problems or to see how well your medicine to prevent blood clots is working. If you take medicines to prevent blood clots, you may have this test regularly.

Your liver makes proteins called blood clotting factors. Your body needs at least a dozen different factors to clot blood and stop bleeding. The PT test is important because it measures five of these blood clotting factors. An abnormal test result means your blood is clotting too quickly or not quickly enough. Common causes include liver problems or treatment with a medicine to prevent blood clots, such as warfarin.

Another blood clotting test, called partial thromboplastin time (PTT), checks several other clotting factors. Together, both PTT and PT tests can find most blood clotting problems caused by abnormal blood clotting factors.

Why is it done?

The PT or INR test helps your doctor:

- Find a cause for abnormal bleeding or bruising.
- Monitor the effects of warfarin or other medicines used to prevent blood clots.
- Look for problems with certain blood clotting factors.

The test is usually done at the same time each day to check medicine used to prevent blood clots. If you are taking warfarin, you may need the test every day at first. Once your doctor finds the right dose of medicine, you may need the test less often.

How is it done?

For a blood test from a vein, the health professional taking the sample will:

- Wrap an elastic band around your upper arm to temporarily stop the flow of blood. This makes the veins below the band larger so it is easier to put a needle into the vein.
- Clean the needle site with alcohol.
- Put the needle into the vein.
- Attach a tube to the needle to fill it with blood.
- Remove the band from your arm when enough blood is collected.
- Apply a gauze pad or cotton ball over the needle site as the needle is removed.
- Apply pressure and a bandage to the site.

In some cases, the health professional will take a sample of blood from your fingertip instead of your vein. For a finger stick blood test, the health professional will clean your hand, use a lancet to puncture the skin on the side of your middle or ring finger, and place a small tube on the puncture site in order to collect your blood.

What are the risks?

There is very little risk of problems caused by having blood drawn.

- You may get a small bruise at the needle site. You can reduce bruising by keeping pressure on the site for several minutes after blood is drawn.
- Rarely, the vein may become swollen and irritated after a blood sample is taken. This is called phlebitis. It usually gets better if you put a warm compress on the sore area several times a day.
- If your blood does not clot very well, the site where blood was drawn may bleed for a while. Aspirin, warfarin, and other blood thinners make bleeding more likely. If you have bleeding or clotting problems, or if you take blood thinners, tell your health professional before you have your blood drawn.

What do the results mean?

Your results may be expressed in either the number of seconds it takes your blood to clot, or a number called INR (international normalized ratio). The INR tells you how long it takes for your blood to clot. The higher the INR, the longer it takes for your blood to clot.

The INR is a way to compare results from lab to lab.

If you are taking blood thinners, your doctor will probably want your INR to be about 2 to 3. Ask your doctor what your INR results should be.

If you are taking blood-thinning medicine, it is very important that you are taking the right dose. Too much can cause you to bleed too easily; not enough can put you at risk for a blood clot or other problems.

What affects the test?

Many medicines and herbal remedies can affect your test results. Tell your doctor about all medicines you take, both prescription and over-the-counter, before you have this test. Your test results may also be affected by:

- Severe diarrhea or vomiting that causes fluid loss and dehydration. This may increase the INR.
- Drinking too much alcohol.
- How much vitamin K you get. Getting a lot of vitamin K may decrease the INR, while getting too little vitamin K may increase the INR. Try to get consistent amounts of vitamin K to keep the test results from varying. Foods that have vitamin K include beef liver, pork liver, green tea, broccoli, chickpeas, kale, turnip greens, and soybean products. Do not take vitamin K supplements without talking to your doctor first. If your doctor recommends them, take them exactly as directed.