
DEEP VEIN THROMBOSIS

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~ THE VEIN EXPERTS ~



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What is Deep Vein Thrombosis?

First, what are veins? Your heart pumps blood into arteries which then bring the blood to all parts of your body. Veins bring the blood back from the body to the heart. They start as tiny vessels, branching to become larger and larger as they return to the heart. Veins run next to arteries and are deep in your body. In your legs, they are deep in the muscle and close to the bones.

Deep Vein Thrombosis (throm-BO-sis) or DVT is a blood clot (thrombus) that forms in a deep vein. Most DVTs occur in the lower leg, thigh or pelvis although they can occur in other parts of the body. The clot may partially occlude the vein or plug the entire vein. Each year, one in every 1000 people develops a DVT.

What is the danger of DVT?

If the clot breaks off and travels, it is known as an embolus. The embolus will become lodged in the lungs; this is known as a Pulmonary Embolus or PE. If there are many embolic clots or the clot is large, pulmonary embolism can be fatal. Therefore, DVT must be treated as a medical emergency. DVT can also lead to complications in the legs referred to as post-thrombotic syndrome. The clot damages small valves in the veins resulting in venous insufficiency. This condition causes blood to pool in the legs which results in chronic leg swelling, leg pain, leg cramps, discoloration of the skin and, in severe cases, ulcers known as venous stasis ulcers.

Who is at Risk for DVT?

There are circumstances that increase your risk for developing a DVT. The more of these conditions that you experience, the greater your risk; for example, the combination of obesity smoking, birth control pills and recent surgery can be a serious risk for DVT. That said, there is no cause or risk present in 25-50% of people with DVT. This is known as “idiopathic” DVT.

- Inactivity with an illness, surgery, or travel. The calf muscle in your leg acts like the heart. It helps keep blood moving up the leg. With inactivity, blood tends to accumulate in the legs and slow moving blood can clot. Sixty percent of all DVTs occurred with immobilization.
- The chance of having a DVT increases dramatically after the age of 60. One out of every 300 people over the age of 70 will develop a DVT.
- Injury or surgery damages the veins or and can slow the flow of blood. Twenty-five percent of all DVTs occurred after surgery.
- There are inherited clotting conditions that can significantly increase your risk for DVT. Talk to your doctor if young or middle age family members have had DVT.
- There is increased risk with estrogen hormones such as oral contraceptives or hormone replacement therapy (HRT).
- There is higher risk of DVT during pregnancy due to high estrogen levels and the uterus pressing on your pelvic veins. A pregnant woman's risk continues for weeks after delivery.
- Twenty percent of all DVTs occur in patients with cancer.
- Leg vein problems such as varicose veins lead to pooling of blood in the legs and increase the chance of a clot.
- In heart failure, the heart is not moving blood out of the legs effectively which may allow a clot to form.
- Obese people have more pressure on their pelvic and leg veins.

- Smokers are more likely to develop DVT.
- If you have had a DVT, you have a ten percent chance of another DVT within the first year.

What are the Signs and Symptoms of DVT?

Fifty percent of people with DVT may not have obvious symptoms. The most common symptom is leg pain and tenderness in the calf. The area may look purple or red and feel warm to the touch. There may be fullness of the veins under the skin and swelling. These symptoms may appear suddenly or develop over a short period. Usually only one leg is affected.

If the clot breaks loose to become a PE, you may experience chest pain often worse with breathing and coughing, shortness of breath, and a rapid heart rate. There may be a feeling of apprehension, sweating, or fainting. These symptoms are not specific for PE and can occur with other medical conditions such as pneumonia or a heart attack. Regardless, these are always critical symptoms that demand immediate medical attention. Call 911 immediately.

How Do I Know If I Have DVT?

It is often difficult to diagnose a DVT from only your signs and symptoms. If your doctor is concerned about DVT, you will have an ultrasound of your leg to look at the veins. This simple, painless test is safe and widely available. A blood test called D-dimer may also be performed. If a PE is suspected, you will need a special x-ray of your chest called computed tomography (CT) scan

How is DVT Treated?

Both DVT and PE are treated with blood thinning medications called anticoagulants. These may be given as pills (e.g. Coumadin,), shots (e.g. Lovenox,) or as an intravenous infusion (e.g. Heparin.) These medications decrease your blood's ability to clot. This is necessary to stop the clots from getting bigger, help prevent PE, and to help prevent post-thrombotic syndrome. These medications are

also often used in hospitalized patients to prevent DVT. They do not, however, dissolve the clots that have already formed. The body's natural systems may slowly eliminate these. Most people need to take blood thinners for at least 3 to 6 months, but some may need them longer. A graduated compression stocking can treat swelling, help prevent blood clots, and help prevent complications from post-thrombotic syndrome.

How Can DVT be Prevented?

If you have been diagnosed with a DVT, prevent further clots by:

- Taking your blood thinning medications as prescribed by your doctor.
- Keeping your follow-up appointments with your doctor and the laboratory so your response to the medications can be evaluated.

You may prevent DVT by:

- Avoiding long periods of inactivity. Exercise your lower leg muscles by flexing your feet if sitting still for a long period. Stand up and walk at least every half-hour if you are on a long flight or get out of the car every hour.
- Getting out of bed as soon as possible after surgery or an illness.
- Elevating your legs if you are sitting for a long period.
- Staying well hydrated. Caffeine and alcohol will de-hydrate you.
- Wearing compression hose if you have varicose veins or will be inactive from illness or travel.
- Losing weight and stop smoking; your healthcare provider can guide you to a program that is right for you.