



Patient Information

A Leg Up on Deep Vein Thrombosis

Blood clots—that is, jelly-like masses of blood cells that form at the site of a blood vessel injury—play an important role in the body’s natural healing process by stopping bleeding and protecting wounded tissue while it mends. Sometimes, though, a clot forms within a vein located deep inside a leg, an arm, or the pelvis. This process—known as deep vein *thrombosis* (thrahm-**bo**-sus), or DVT for short—is most likely to occur after surgery or a severe injury or during long periods of inactivity.

DVT causes problems if the clot, or *thrombus* (thrahm-bus), becomes large enough to slow or block the normal flow of blood. This is especially dangerous if the thrombus breaks off and travels through the bloodstream. If a traveling clot, called an *embolism* (em-buh-liz-uhm), gets stuck inside an important organ, such as the lungs, it can cause serious injury or death.

About two million people in the United States develop DVT each year. About 600,000 are hospitalized, and about 60,000 die from complications. That’s why it’s important to know your risks, the steps you can take to prevent problems, and when to seek treatment.

How do I know if I’m at risk?

DVT is more common in people who are obese, are over 40 years old, or have a personal or family history of blood clots. Research shows that race also may be a

factor, with a higher risk among blacks and a lower risk among Hispanics, Asians, and Pacific Islanders.

Anything that makes your blood slow down, thicken, or clot more easily can raise your risk of DVT. This includes extended periods of sitting or lying down without moving (such as on a long trip or during an illness that keeps you in bed), certain blood disorders, circulation or heart problems, and some cancers. Others who may be at increased risk for DVT are trauma victims, people undergoing major surgery, women who are pregnant or have given birth within the past year, and women taking birth control pills or hormone replacement therapy.

What are the warning signs?

Although it can affect the arm or pelvis, DVT occurs most often in the leg. When the clot is big enough to interfere with blood flow, the affected leg may redden, swell, or become painful or warm to the touch, especially at the calf below the knee. The pain may worsen when you stand, walk, or bend your foot upward. Any of these symptoms should prompt you to make an appointment with your doctor.

On the other hand, 50% to 80% of people with DVT have no symptoms. And if the condition progresses silently, the first sign of trouble could be a medical emergency. If you have shortness of breath, chest pain that worsens when you breathe deeply, and a deep cough accompanied by



phlegm or blood, call 911 immediately. It may mean that an embolism has become lodged in your lungs.

What tests do I need?

To find out if you have DVT, your doctor will ask you questions about your medical history and perform a physical exam. You may need to have some blood taken, so that the doctor can examine how it clots. Other tests provide a picture of the blood flow in your veins. Ultrasound does this with high frequency sound waves, while *venography* (vih-nah-gruh-fee) uses an injected dye and X-rays.

How can I avoid the problem?

You can lower your risk of DVT by exercising regularly—take a brisk, 30-minute walk most days of the week. Maintain a healthy weight and don't smoke. Avoid sitting or lying down for long periods, and try not to cross your legs or ankles. Wear loose fitting clothing and stay hydrated by drinking plenty of water and avoiding alcoholic beverages. Women should talk with their doctor about the risks and benefits of birth control pills or hormone replacement therapy.

If you're at high risk for DVT, ask your doctor about graded compression stockings, which are designed to support your veins and keep your blood flowing smoothly. Since these stockings only work if they fit correctly, be sure your doctor or pharmacist helps you find the right size.

Before traveling long distances by plane, train, or car, talk to your doctor about possible preventive measures, such as aspirin. During the trip, get up and move about at

least once an hour. You also can exercise your leg muscles while sitting by pulling your toes toward your knees or by pressing the balls of your feet down while raising your heel.

How is it treated?

In emergencies, a drug called a *thrombolytic* (thrahm-bo-lit-ick) can be used to dissolve the blood clot. But in most cases, DVT treatments aim to prevent existing clots from becoming larger or from breaking off and traveling to your organs, to prevent symptoms associated with DVT, and to keep new clots from forming.

Generally, people who are diagnosed with DVT—or who are at high risk and undergo major surgery—are prescribed an *anticoagulant* (an-tie-co-ag-yuh-lent), a medication that reduces the blood's tendency to clot. One such drug, heparin, is given as an intravenous “drip” or injected under the skin—usually for about a week, but sometimes for longer. The oral anticoagulant warfarin, which goes by the brand name *Coumadin* (coo-ma-din), typically is started during heparin therapy and then continued for three to six months (or longer). While you're taking warfarin, you'll need to see your doctor regularly for blood tests.

After you're diagnosed with or treated for DVT, routine prevention becomes especially important. In addition to graded compression stockings and other measures described earlier, it may be a good idea to place a cushion under your feet while you're sitting or sleeping, so that your feet are elevated above your hips, which helps reduce pressure in the veins of your legs. ●

