

Deep Vein Thrombosis

Deep vein thrombosis (DVT) is a condition in which a blood clot (thrombus) forms in a deep vein in the body. The blood clot can partially or totally block blood flow in the vein. Deep vein thrombosis occurs most often in the leg veins, but it may also occur in the veins of the arms. The blood clot can break off and travel to the lungs. This results in a pulmonary embolus, which can be life-threatening. A hospital stay with a decreased level of activity increases your DVT risk.

If you have questions or concerns about DVT, please ask your physician or nurse.

Risk factors

Risk factors for DVT include:

- Immobility, such as long car or airplane trips
- Recent surgery
- Stroke
- Injury to a vein
- Pregnancy
- Estrogen (birth control or hormone replacement therapy)
- Coagulation disorders (tendency for the blood to clot)
- Cancer
- Older than 60 years of age
- History of DVT or pulmonary embolus
- Obesity
- Heart failure
- Smoking

Symptoms

The symptoms depend on the size and location of the blood clot. They can include:

- Sudden swelling in one leg or arm
- Warmth or redness of the skin
- Bluish discoloration of the skin
- Limb weakness

In some cases, you may have no symptoms.

Prevention

Hospital

In the hospital, all patients are at risk for DVT. Your healthcare team will take steps to help prevent blood clots from forming. These may include:

- Low-dose medications to prevent blood clots
- DVT prevention boots that gently squeeze your calves to promote blood flow to the heart

Treatment

Medications

You may receive anticoagulant (blood thinner) medications to prevent a new blood clot from forming or an existing blood clot from getting larger. These medications do not dissolve blood clots that have already formed.

You may receive anticoagulants in the following ways:

- IV (into the vein) line
- Injection into the skin
- By mouth (orally)

At first, most people receive anticoagulants in 2 forms. You receive them through an IV or by injection, along with the oral medication, warfarin (Coumadin®). Then, you may only take warfarin. In some cases, you may be on warfarin along with injections at the same time.

Your physician will use blood tests to select the correct dose of medication. These blood tests are called the international normalized ratio (INR) or prothrombin time (PT). Newer oral medications are also now available to treat DVT. These medications are called direct oral anticoagulants (DOACs) and do not require testing of the INR or PT. Your physician will decide how long you will need to take anticoagulants.

Procedures

- Inferior vena cava filter placement: When an anticoagulant cannot be used, your physician may place a filter device in the vena cava (the large vein in the abdomen). The filter prevents blood clots from traveling to your lung.
- Catheter-directed thrombolysis: In this procedure, your physician inserts a catheter into a vein to the area of the blood clot. You will receive a medication through the catheter to dissolve the clot.
- Angioplasty or stenting: These procedures involve opening a blocked or narrowed vein using a thin catheter inserted into the vein.

Other treatment

Limb elevation

- Elevate the affected arm or leg above the level of the heart.

At home

- Know the risk factors and signs of DVT. If you are at risk for DVT, talk with your physician. High-risk patients or those who are having certain procedures or surgeries may need anticoagulant medications or compression stockings.
- Be aware that if you do not wear compression stockings correctly (such as rolled or the wrong size), they can impair blood flow.
- Do not sit for long periods. It is helpful to stand up and walk at least every hour.
- Exercise for a few minutes every hour if you are riding in a car or plane for a long trip. Exercise both feet while lying, sitting or standing for long periods of time.
- As directed by your physician, stop any medications (such as estrogen) that contribute to blood clotting. This is important before any surgery.
- Avoid tight clothing that can restrict blood flow.

When to call your physician or nurse

Report any sudden onset of swelling of the leg or arm or any other DVT symptoms.

Seek medical attention right away if you have any of the following:

- Chest pain or discomfort
- Shortness of breath or rapid breathing
- Cough or sudden onset of bloody sputum
- Rapid heart rate
- Fainting
- Sudden, unexplained pain, redness or swelling of an extremity