

Deep Vein Thrombosis

Deep vein thrombosis (DVT) refers to the formation of a thrombus (blood clot) within a deep vein, commonly in the thigh or calf. The blood clot can either partially or completely block the flow of blood in the vein.

What Causes Deep Vein Thrombosis and Who is at Risk?

DVT used to be known as “economy class syndrome” because of the prevalence of DVT’s following flying, especially if you have been in a seat with little leg room.

DVT can be caused by a narrowed or blocked vein which allows the blood to clot. This can be brought on by an injury to the vein (such as a sharp blow to the leg), or following surgery or radiation therapy (cancer-killing X-rays). DVT can also be caused by poor circulation from inactivity or prolonged bed rest due to conditions such as heart disease. In addition, they can occur during pregnancy as an increased tendency for the blood to form clots occurs naturally so as to prevent excessive bleeding during child-birth. DVT can also occur as the result of severe infection, liver disease and some cancers.

DVT is more common in the elderly, but healthy young people can develop it as well. Some people are not born with vital ‘blood thinning’ substances and are therefore always more susceptible to blood clots. Some medicines, such as the contraceptive pill, can marginally increase the risk of developing DVT.

What Are the Common Symptoms and Complications of Deep Vein Thrombosis?

The symptoms of deep vein thrombosis include:

- Tenderness and redness in the affected area
- Pain and swelling in areas drained by the vein where the blood clot is located
- Fever
- Rapid heartbeat
- Sudden, unexplained cough
- Joint pain and soreness

The most common, serious complication of DVT is a pulmonary embolism, where a blood clot breaks free from a vein wall and travels to the lung where it blocks an artery. A pulmonary embolism can be life-threatening and needs immediate medical attention. DVT can also cause a miscarriage or stillbirth if a blood clot breaks free and lodges in an artery in the placenta, reducing the oxygen supply to the fetus.

How do Doctors Recognize Deep Vein Thrombosis?

If a clot is suspected, your doctor will perform a complete physical examination and take your medical history. A sharp pain when your foot is flexed upwards may indicate the presence of a blood clot in the leg. Other tests may also be conducted, including:

- An ultrasound scan of the leg
- X-rays of your veins after dye is injected into a foot vein – this allows the doctor to see how your blood is flowing
- Tests that measure your body’s blood clotting mechanism

What is the Treatment for Deep Vein Thrombosis? Self-Care Action Plan

In order to prevent deep vein thrombosis, try to avoid prolonged bedrest if possible. If medical conditions or conditions related to pregnancy require you to be confined to bed, be sure to keep your lower limbs moving on a regular basis. Stopping smoking is important for everyone, but particularly for people at risk of developing deep vein thrombosis. Regular exercise is important too. Ask your doctor which type of exercise is best for you.

If you are taking a long plane flight, don't just sit in your seat for all of the time: wiggle your toes and flex your ankles to keep your circulation going, and walk up and down the aisle when you can (see fact sheet "health advice for long haul flights" by Tim Allardyce)

If you are going to have surgery for another condition and there is a risk of getting a DVT, you may be given anti-clotting drugs (called anti-coagulants) before surgery. Also you may be given special bags to put over your legs to help prevent DVT after surgery

Hospital treatment: if you do have DVT, hospitalisation and bed-rest are usually necessary at first. Treatment is aimed at relieving symptoms, such as applying warm moist heat to relieve pain, but preventing the clot from travelling to other parts of your body is the most important component of treatment. The clot will usually be allowed to disperse naturally.

Which Drugs Will Be Prescribed?

You may be prescribed medications called anti-coagulants or anti-platelet agents. These drugs help prevent more clots from forming. Be sure that you take all medications according to your doctor's instructions. In some people with DVT, medications called thrombolytics are used to dissolve a blood clot. While undergoing treatment for DVT you should call your doctor immediately if you:

- Have chest pain, which may be a sign of pulmonary thrombosis
- Cough up blood, which may be a sign of pulmonary thrombosis
- Experience continued pain and swelling in the affected area, or have other new symptoms, which might indicate that the treatment is not working and the vein is still blocked

Once You Have Been Treated Successfully for DVT, You Can Help Prevent Further Clots From Forming by Following These Measures:

- Avoid knee socks or hosiery that might limit blood flow through the leg
- Don't cross ankles or legs while sitting or lying
- Raise the foot of your bed to lift the legs at night
- Keep your feet higher than your hips while sitting
- Avoid prolonged sitting or standing in one position
- While resting keep moving your legs, and bending your ankles and toes

What is the Outcome of Deep Vein Thrombosis?

If deep vein thrombosis is recognised early and treated properly, it will usually resolve itself without complication. If left untreated, however, it can cause severe complications, which may be fatal.