

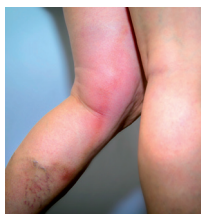
What is Deep Vein Thrombosis?

A deep vein thrombosis (DVT) occurs when a blood clot forms in a vein and causes a blockage. A DVT usually develops in the calf vein in the leg, but it sometimes also occurs above the knee. A DVT can also develop in other deep veins in your body.

Symptoms

Some of the common symptoms of a DVT are:

- Tenderness in the calf or leg
- Swelling of the calf or leg
- Colour and temperature changes – feeling warm and becoming red
- Swelling and a feeling of tightness, the skin may feel stretched
- Pain



However some DVTs have no symptoms at all (asymptomatic)

What causes a DVT (Risk Factors)

- Being immobile, in a medical ward in hospital or at home in bed or chair bound, which causes blood flow in the veins to be slow. Slow flowing blood is more likely to clot than normal flowing blood.
- Long journeys, by any means of transport, where you sit still for long periods of time without being able to stretch your legs or move about.
- Surgery.
- An illness or injury that causes immobility increases the risk. Fractures that require a hard plaster cast can increase risk.
- Thrombophilia – genetic conditions that cause the blood to clot more easily.
- Cancer: Sometimes a person presents with a DVT without a diagnosis of cancer. Investigations may show that cancer is the underlying cause. Patients being treated for cancer are also at risk of developing blood clots.
- Heart failure
- Previous DVT
- Contraceptive pill or HRT
- Pregnancy: Approximately 1 in 1000 pregnant women will have a DVT whilst they are pregnant, or within six months after giving birth

- There has been some speculation that sitting at your desk for long periods of time may also increase risk of a DVT or 'ecdot' and blood clots are now being seen in younger people who play video games over long periods of time restricting mobility
- Obesity
- Age – Your risk increases if you are over 60 especially if there is poor mobility or you have a serious illness such as cancer
- Smoking

It should also be noted that some people will have a DVT for no apparent reason.

Diagnosing a DVT

The following three tests are often used.

- D-dimer test - a blood test that detects a substance that is released when a blood clot breaks up. The higher the level, the more likely you are to have a blood clot in the leg.
- Ultrasound scan also known as a duplex Doppler scan is non-invasive and is used to show the blood flow in the legs and see if there are any blockages
- Contrast Venography involves dye being injected into the legs and an x ray will then detect if there is a blockage in the vein.

Some people may only realise they have a DVT when a pulmonary embolism (PE) develops.

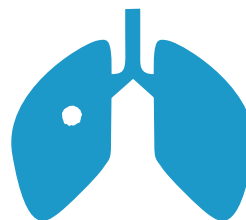
What is a pulmonary embolism?

A pulmonary embolism (PE) is a blood clot in the lungs.

A pulmonary embolism happens when a blood clot, or a piece of clot, breaks off and travels through the blood into the lungs. It causes a blockage that deprives lung tissue of vital oxygen and disrupts the pulmonary circulation which can cause shock, collapse and can be fatal.

Common symptoms might include:

- Chest pain that is sharp and is worse when taking a deep breath
- Coughing up blood
- Breathlessness and coughing
- Fainting
- Feeling light headed or dizzy
- Sweating



Most pulmonary embolisms are as a result of a deep vein thrombosis. However, some people have no initial symptoms.

DVT and PE Treatment

It is essential to treat a DVT as quickly as possible to prevent the clot getting bigger or pieces of it breaking off and travelling to the lungs causing a pulmonary embolism. Treatment is usually with anticoagulant therapy.

Anticoagulation therapy

Anticoagulant therapy is often referred to as "thinning the blood". However it does not thin the blood but lengthens the time it takes for your blood to clot. This prevents clots from forming so easily.

Anticoagulants are used to treat and prevent blood clots that may occur in the blood vessels of the body. They are given to people who are considered to be at a higher than normal risk of getting blood clots and those who have already had a previous clot.

Commonly used anticoagulants are low molecular weight heparin, apixaban, dabigatran, edoxaban, rivaroxaban and warfarin.

Low molecular weight heparin is given by injection, all the others are taken by mouth (oral).

Compression stockings

Compression stockings may be offered to patients with DVT to help reduce pain and to help prevent post-thrombotic syndrome (PTS) occurring. Post-thrombotic syndrome is damage to the tissues of your calf. It can cause pain and a rash. Leg ulcers may also occur.

Helping you to avoid a DVT

Not all blood clots can be prevented but the risk of developing one whilst you are in hospital can be significantly reduced. At the pre-admission clinic or when you are admitted into hospital, your risk of developing a blood clot should be assessed by a doctor or nurse. If you are not assessed you must ask the nurse or doctor to assess you. If you are assessed at being at risk, you will be given treatment (thromboprophylaxis) to reduce the clots forming. It is very important that you are told what signs to look out for whilst in hospital and at discharge. You should be given information to help you understand the symptoms of a blood clot and what to do.

- Make sure you get up and about as soon as you are able
- Exercise your legs whilst in bed
- Make sure you drink plenty of fluids
- Ensure you take any clot preventing medications prescribed whilst in hospital and after discharge as directed

Travel

The following suggestions apply for any long journey, such as coach, train car or plane, and also when sitting for any lengthy period.

- Keep your legs and feet active - every half hour; bend and straighten them to keep the blood circulating
- Press down on the balls of your feet, then raise the heels to help increase the blood flow in your legs
- Don't cross your legs
- Do deep breathing exercises to help improve circulation
- Walk up and down the aisles frequently
- If you are on a long flight which has refuelling stops, take the opportunity to leave the plane and walk about
- Drink plenty of water - preferably a glass every hour
- Avoid alcohol - or, if you must, take only small amounts. Alcohol will cause dehydration and sleepiness
- Avoid sleeping pills - they will cause you to be immobile for long periods
- Try not to sleep for too long in a cramped position - move about as much as possible and stretch out

Remember

If you are going into hospital for an operation or illness, you should be assessed as to your risk of developing a clot.

- every patient should be assessed again, 24 hours after admission to hospital
- every patient should be re-assessed whenever their medical condition changes
- every patient should be assessed again before discharge
- every patient should receive information on how to continue preventable measures at home

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Treatments to prevent blood clots whilst in hospital

- Anticoagulants
- Mechanical intervention

You may be given Intermittent Pneumatic Compression (IPC). This is a device that is fitted to the legs. The device inflates at regular intervals putting pressure on the vessels in the leg to keep the blood flowing.

- Neuromuscular Electrostimulation Devices

Calf muscle Neuromuscular Electrical Stimulation (NMES) is a mechanical method of DVT prevention that increases blood flow in the lower limbs. An example of an NMES is a device called the Geko. This device gently stimulates, thus activating the calf and foot muscle pumps to increase blood flow. The increase in blood flow is similar to that achieved by walking up to 60%, without you having to move.

For more details on blood clots, conditions and anticoagulation therapy:

www.anticoagulationuk.org

The information in this leaflet is for guidance only. If you require advice in relation to a specific health condition, treatment or drug therapy relating to the conditions referred to in this leaflet then please speak to your doctor, nurse or pharmacist.

Anticoagulation UK is affiliated to AntiCoagulation Europe and is an independent charity whose aims are the prevention of thrombosis and the provision of information, education and support for both patients and health care professionals.

We work with medical professionals, government, industry and other charities to ensure that the patient voice is heard and taken into account.

We have a wide range of information leaflets and publish a magazine for people taking anticoagulants.



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A GUIDE TO DEEP VEIN THROMBOSIS (DVT)



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