

# Deep Vein Thrombosis (DVT)

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Deep Vein Thrombosis occurs when blood clot (called a thrombus) forms in a vein. This usually occurs in the deep veins of the leg but can occur in most veins of the body.

The thrombus in the deep veins of the leg can cause obstruction to the blood flow leading to pain, swelling, and discolouration of the affected limb.

There is a chance that this clot might break off (this is called an embolus) and travel to the lungs (this is called Pulmonary Embolism) which is serious and can sometimes be fatal as it can block off the blood supply to parts of the lungs.

Fortunately treatment is very effective in reducing the chance of this happening.

## Risk Factors for DVT:

- Clotting abnormality in the blood (including family history).
- Pregnancy.
- Obesity.
- Underlying Cancer.
- Previous DVT.
- Immobility including long haul flights.
- Contraceptive pills.
- Recent surgery.
- Intravenous drug use.

## Symptoms of DVT:

- Pain in the affected leg.
- Swelling/firmness of the leg.
- Warmth and redness of the leg.



## How is it diagnosed?

In some cases the condition can be excluded by a blood test without the need for special scans. If the test is not appropriate or does not exclude a blood clot, an ultrasound Doppler scan of the veins is usually required.

## Treatment of DVT

The mainstay of treatment of DVT is 'anticoagulation' which means thinning of the blood. This reduces the risk of blood clots getting bigger, while the body's own systems dissolve the clot.

The duration of the anticoagulation treatment varies. The minimum duration of treatment should be three months.

## Medications used to treat DVT:

- Low Molecular Weight Heparin (LMWH) such as dalteparin.
- Vitamin K antagonists (VKAs), such as warfarin.
- New Oral Anticoagulants (NOACs), such as rivaroxaban.

If warfarin is used you will also start treatment with low molecular weight heparin injections for a few days. This is because it takes a few days for the optimal effect of warfarin to be established.

The risk and benefits of treatment will be discussed with you by the doctor. Warfarin has special monitoring arrangements and you will need regular blood tests, this may be done by either your GP or the hospital.

The doctor or pharmacist will give more information, including an information pack before you are discharged.

When you are discharged it is important that you know when your next blood test is due and who will monitor your warfarin in the future.

You will be given a form that will tell you this information and you should take it to your GP or the hospital when you have your next blood test.

In some cases of extensive DVT, a patient may need a filter to be placed in a main vein to stop the clot from travelling to the lungs. This is called an Inferior Vena Cava (IVC) filter. This decision is usually made by a senior clinician.

Sets of knee-length compression stockings (called Category 2, graduated compression stockings) should also be supplied for you, starting about a week after the clot was diagnosed. A stocking should be worn, only on the affected leg, for two years, in order to minimise the risk of developing complications of swelling and pain sometimes with skin ulcers (called the post phlebitic syndrome).

When the initial pain and swelling has settled, it can be taken off at night. Stockings need replacing two to three times per year.

Patients usually do not need to stay in the hospital for treatment of DVT.

Ambulatory (daily return to ward) treatment of patients with a diagnosis of DVT

Initially you will be assessed in the Acute Medical Unit (AMU) at DRI or the Assessment and Treatment Centre (ATC) at Bassetlaw Hospital or in the Emergency Department (ED) and some blood tests will be taken.

If the assessing doctor suspects a DVT they will then arrange for you to have a Doppler scan and an injection (Dalteparin) in your tummy (under the skin).

The Doppler scan may not be available on the same day or the following day (it depends on availability of slots).

However you will still need to have the injections (either in the hospital or in the community if such arrangements have been made by the hospital) once a day for your injections, until you have had a scan.

**Warning signs** - If you have any of the following, seek medical advice immediately:

- Blackout.
- Dizzy spell.
- Coughing up blood.
- Worsening shortness of breath.
- Sharp chest pain especially when taking a deep breath in.
- Any bleeding that does not stop with simple measures.
- Severe increase in leg swelling and/or pain.

## **If you have any of these symptoms, please contact:**

**Doncaster Royal Infirmary, Acute Medical Unit (AMU),**

Tel: 01302 642617.

**Bassetlaw Hospital, Assessment and Treatment Centre (ATC),**

Tel: 01909 502 186 (direct dial).

## **If you are very unwell, call 999 to get yourself to the hospital.**

It is very important that you come back to the ward for daily Dalteparin Injections for as long as the doctor or nurse thinks you need it, unless it has been arranged for the district nurse to administer it in the community.

If for any reason you cannot attend the ward for the injections or you do not receive a dose of the injection in the community please call the ward to inform them so that they can give you further advice.

## **Patient Advice & Liaison Service (PALS)**

The team are available to help with any concerns, complaints or questions you may have about your experience at the Trust. Their office is in the Main Foyer (Gate 4) of Doncaster Royal Infirmary. Contact can be made either in person, by telephone or email.

### **The contact details are:**

**Telephone:** 01302 642764 or 0800 028 8059

**Email:** [dbth.pals.dbh@nhs.net](mailto:dbth.pals.dbh@nhs.net)