



# Deep Vein Thrombosis (DVT)

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Northampton  
General Hospital  
NHS Trust

## What is a DVT?

A DVT is a blood clot that occurs in a vein. Usually DVTs occur in a vein in either the thigh or calf but they can occur elsewhere in the body.

## Symptoms of a DVT

A DVT affects the blood's ability to flow normally around the affected area, this is what causes symptoms.

DVT usually only affects one leg. The most common symptoms of a DVT are:

- Pain and tenderness to the leg, often in the calf. Commonly this is described as a cramp like or throbbing pain
- Swelling
- Heat and redness to the skin
- Swollen veins to the affected leg that were not present before

There are other causes for these symptoms but if a doctor or nurse thinks you have these symptoms due to a DVT it is important to have further investigations.

## Causes of DVT

Anyone can develop a DVT, but they become more common as we get older. There are several risk factors for developing a DVT:

- Having a personal or family history of DVT or pulmonary embolism (PE)

- Having certain medical conditions or treatments for conditions such as cancer
- Obesity
- Pregnancy
- Varicose veins
- Taking the combined contraceptive pill or hormone replacement therapy (HRT)
- Recent injury to the leg
- Being inactive for a long period of time such as after surgery or a recent illness or hospital stay
- Long haul travel

Sometimes a DVT can develop without any of these risk factors.

## What happens at the DVT clinic?

You will be seen by one of the anticoagulant nurses who will discuss your symptoms and examine your leg. Based on your symptoms, history and examination a clinical risk score will be calculated. This risk score is called the Wells score.

The Wells score identifies the likelihood of your symptoms being caused by a DVT. A positive Wells score does not diagnose a DVT, but it does mean we cannot rule one out. Therefore, if your Wells score is positive, you will need to have an ultrasound scan to see if a DVT is causing your symptoms.

On arrival to the DVT clinic you will have some routine blood tests taken; if you were referred to the DVT clinic by Accident and Emergency (A&E) or the Same Day Emergency Care (SDEC) unit you may have already had these blood tests done.

The blood tests look at your full blood count, your liver and kidney function and the clotting time of your blood. One part of the clotting blood test looks at your d-dimer. A d-dimer blood test is a measurement of broken down clotting products in the blood.

A d-dimer may be elevated because you have a DVT however there are lots of other causes for an elevated d-dimer (e.g. recent injury, illness or surgery, cancer, pregnancy). A raised d-dimer does not diagnose a DVT, but it does mean we cannot rule one out. Therefore, you will need to have an ultrasound scan if your d-dimer is elevated to see if there is a DVT present.

If both your Wells risk score and d-dimer are low, we can rule out a DVT causing your symptoms without an ultrasound scan. You will be discharged from the DVT clinic with advice from the nurse as to what to do next about your symptoms.

Most importantly you should seek medical advice again if your leg symptoms persist or worsen, or if you develop any new symptoms. If you were taking an anticoagulant medicine, a medicine which makes your blood take longer to clot (sometimes referred to a blood thinner) whilst waiting for your DVT clinic appointment, and you do not normally take these for another reason, you will also be advised to discontinue this.

## Ultrasound scan

The type of ultrasound scan you will have is called doppler ultrasound. It is used to detect blood flow through the deep and superficial veins in your leg from the pelvis down to the calf. The scan usually takes 10-20 minutes and will be performed either by a nurse or a sonographer.

You will need to remove enough clothing from the lower half of your body so the whole leg is exposed, you will not need to remove your underwear.

If there is not a chaperone present, you have the right to request one at any time.

To perform the scan the nurse or sonographer will apply some gel to your skin, which may feel cold, and use the ultrasound probe along your leg to examine the veins. They will also need to press the probe quite firmly into the leg to fully assess the veins; sometimes this can be quite uncomfortable.

You will find out the result of your ultrasound scan immediately.

## Negative ultrasound scan

If a blood clot is ruled out your ultrasound scan is classed as negative.

You will be advised to stop any anticoagulant medicines you were taking whilst you were waiting for your DVT clinic appointment, unless you also take these for another medical condition. You will also be given advice about what to do next in regards to your symptoms.

If the nurse or sonographer were unable to clearly see all the veins or the scan was inconclusive, you will be asked to return for a repeat scan in one weeks time; you will be given an appointment for this. If your ultrasound scan is negative but your d-dimer is very high, without an identifiable cause, you will also be asked to return for a repeat scan in one weeks time. Not everyone will need a repeat scan: this is decided on an individual basis.

## Positive ultrasound scan

If a blood clot is diagnosed your ultrasound scan is classed as a positive. A blood clot will either be found in the deep veins (DVT), or in one of the superficial veins (SVT). You will be given treatment during the same clinic appointment and sent home. Most people with blood clots can be treated safely at home and do not need to be admitted to hospital.

Blood clots are treated with an anticoagulant medication which works by making your blood take slightly longer to clot. This stops the existing clot getting any bigger and allows your body time to break down and reabsorb the clot. The type of anticoagulant medication you are recommended will depend on the location of your clot, your medical history and blood results, your lifestyle and preferences.

## Superficial Vein Thrombosis (SVT)

An SVT is usually treated with a 30-day course of anticoagulant injections containing heparin. You will be taught how to administer these to yourself and will be given a sharps bin for the disposal of the used syringes. You will also be given an appointment to come back for another scan in one weeks' time to make sure the treatment is being effective.

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A DVT is usually treated with anticoagulant tablets. The type and duration of treatment varies. Your nurse will give you a supply of this medication and provide education on how to take your medication effectively and safely. You will not need to return for a repeat scan if you are having treatment for a DVT.

The different anticoagulant medications are all taken slightly differently, but there are some recommendations that apply to those taking any form of anticoagulant medication for the treatment of a blood clot:

- Due to the fact they work by making your blood take longer to clot, your risk of bleeding whilst taking an anticoagulant medication is increased. Therefore, you must seek medical attention if you experience any unusual bleeding or bruising
- You must ensure your supply of medication does not run out. Missing doses of your treatment reduces its

effectiveness and can increase your risk of developing complications of a DVT/ SVT.

- Do not abruptly stop taking the medication before the end of the course unless you have discussed this with a doctor first
- It may take several weeks for your symptoms to improve, however, if your symptoms worsen or you develop new symptoms in your leg you should seek the advice from your GP or the DVT clinic.
- The length of treatment for a DVT depends on why it has happened. Some people are treated for 3 months, some for 6 months and some may need to be treated lifelong. The duration of your treatment will be referred to in your discharge letter.
- It is important however that you always let your GP or any nurses or doctors treating you, that you have had a previous blood clot. This is particularly important if you have been treated for a pregnancy related clot.

## Complications

A DVT can lead to the development of a pulmonary embolism (PE). This is a serious medical condition that occurs when a piece of blood clot breaks off from the original clot and travels through the bloodstream and blocks one of the blood vessels in the lungs.

The chance of this is greatly reduced once anticoagulant treatment is started, but for this reason it is very important



you take your treatment as recommended, try not to miss or take any doses late and do not stop your treatment early.

You must go to A&E or call 999 if you develop any of the symptoms of a PE. They include:

- Chest pain
- Shortness of breath or difficulty breathing
- Coughing up blood

## How will my GP know about my DVT clinic appointment?

After your appointment at the DVT clinic a letter will be sent electronically to your GP explaining the results of your investigations, any medications given and any further instructions for the GP to follow. You will receive a copy of this letter in the post. Your blood results and scan report will be available for your GP to review via a shared online system, however if the anticoagulant nurse finds any abnormalities they will be highlighted to the GP to follow up.

## Other information

If you have had a blood clot, for whatever reason, it is very important that you always let any health care practitioners (doctors, nurses, midwives etc.) involved in your care know that you have had a previous blood clot, even if you are no longer on treatment. This is particularly important if you are coming into hospital or are pregnant.

If you have any questions about your treatment or symptoms, you can contact us by calling 01604 544121. If we cannot answer your call, leave a message on the answer machine. Please note the clinic is open Monday to Friday 08.00 – 17.00.

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## Useful websites

[www.nhs.uk](http://www.nhs.uk)

[www.northamptongeneral.nhs.uk](http://www.northamptongeneral.nhs.uk)

These are websites where you can find more information about blood clots, treatment and support groups.

[DVT \(deep vein thrombosis\) - NHS \(www.nhs.uk\)](http://www.nhs.uk)

[Deep vein thrombosis in pregnancy - NHS \(www.nhs.uk\)](http://www.nhs.uk)

[www.thrombosisuk.org](http://www.thrombosisuk.org)

[National Blood Clot Alliance \(stoptheclot.org\)](http://stoptheclot.org)

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## Other information

Northampton General Hospital operates a smoke-free policy. This means that smoking is not allowed anywhere on the Trust site, this includes all buildings, grounds and car parks.

Leaflets, information, advice and support on giving up smoking and on nicotine replacement therapy are available from the local Stop Smoking helpline on 0845 6013116, the free national helpline on 0300 123 1044, email: [smokefree@northnorthants.gov.uk](mailto:smokefree@northnorthants.gov.uk) and pharmacies.

Car parking at Northampton General Hospital is extremely limited and it is essential to arrive early, allowing ample time for parking. You may find it more convenient to be dropped off and collected.

This information can be provided in other languages and formats upon request including Braille, audio cassette and CD. Please contact (01604) 523442 or the Patient Advice & Liaison Service (PALS) on (01604) 545784, email: [ngh-tr.pals@nhs.net](mailto:ngh-tr.pals@nhs.net)

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