

References

Thrombosis UK - thrombosisuk.org

Deep Vein Thrombosis - A guide for patients, Sanofi Aventis

Treating deep vein thrombosis (DVT) - NHS choices <http://www.nhs.uk/Conditions/Deep-vein-thrombosis/Pages/Treatment.aspx>

Deep Vein Thrombosis, Patient UK - www.patient.co.uk

Venous thromboembolic disease, NICE clinical Guideline (June 2012)

The Trust endeavours to ensure that the information given here is accurate and impartial.



If you require this information in another language, large print, audio (CD or tape) or braille, please email the Patient Information team at patient.information@ulh.nhs.uk

CARING FOR YOU

United Lincolnshire Hospitals NHS Trust

Deep Vein Thrombosis (DVT) in the Leg

A guide for patients

www.ulh.nhs.uk

The cover of the patient guide features a blue border. At the top left, it says 'CARING FOR YOU' with three small icons (a heart, a person, and a hand). At the top right is the NHS logo and 'United Lincolnshire Hospitals NHS Trust'. The central image shows several red blood cells in a dark red, glowing environment. Below the image, the title 'Deep Vein Thrombosis (DVT) in the Leg' is written in large, bold, black font. Underneath the title, it says 'A guide for patients' in a smaller font. At the bottom, the website 'www.ulh.nhs.uk' is listed.

What is a Deep Vein Thrombosis (DVT)?

A DVT is a blood clot(s) which has formed in one or more of the deep veins that go through the muscles of the calf and thighs. When you have a DVT, the blood flow in the vein is partially or completely blocked by the clot.

The calf vein is a common site for a DVT. The thigh is less common. Rarely, other deep veins in the body can be blocked by blood clots e.g. in the arm or groin.

What causes a DVT?

Blood normally flows quickly through the veins and does not usually clot. Sometimes a DVT occurs for no apparent reason. However, the following increase your risk of developing a DVT:

- Active cancer or on-going treatment
- Trauma (fractures) plaster cast immobilisation of the lower limbs or paralysis
- Age 40 years or over
- History of VTE
- Hospitalisation or bed rest of 3 days or more
- Surgery or joint replacement in the last 12 weeks
- Hormone replacement, oestrogen containing contraceptive therapy
- Pregnancy or less than 6 weeks since child birth
- Obesity (BMI 30g/m²)
- Smoker
- Thrombophilia, Factor V Leiden

What are the symptoms of DVT?

DVT usually (although not always) affects one leg. Symptoms of a DVT in the leg include:

- Swelling
- Pain - worse on bending your foot upwards towards the knee

- ♦ You may wish to see your GP and discuss your risks and any medication you may need to take to prevent a DVT during this time
4. If you are overweight (BMI over 30) try to lose some weight as this will reduce the risk.
 5. Pregnancy - if you are planning to start a family or become pregnant, discuss this with your doctor.

What can I do to prevent another DVT?

Having a DVT increases your risk of having one again. As time goes by your risk will decrease.

1. If possible, avoid sitting for long periods. Take a brisk walk for 30 to 60 minutes each day. If you are unable to walk, exercise the calf muscles by:
 - **Ankle Circles**
Lift feet off the floor. Draw a circle with the toes, simultaneously moving one foot clockwise and the other foot counter clockwise. Reverse circles. Rotate in each direction for 15 seconds. Repeat if desired.
 - **Foot Pumps** - Foot motion is in three stages.
 - i. Start with both heels on the floor and point feet upward as high as you can.
 - ii. Put both feet flat on the floor.
 - iii. Lift heels high, keeping balls of feet on the floor.Repeat these three stages in a continuous motion and in 30 second intervals.
 - Lift leg with knee bent while contracting your thigh muscle. Alternate legs. Repeat 20 to 30 times for each leg.
2. If you have surgery, or are admitted to hospital in the future, inform the doctor/nurse you have had a DVT previously. Ask them to discuss venous thromboprophylaxis to help prevent you developing a DVT.
3. When you travel long plane, car or coach journeys you should walk up and down the aisles; if you are unable to do this follow the exercises in 1.
 - ◆ Try to stay well hydrated and avoid alcohol
 - ◆ Avoid sleeping medication whilst traveling
 - ◆ Always take out a comprehensive travel insurance policy prior to travel

- Warm skin
- Tenderness
- Redness (particularly at the back of your leg below the knee)

How is the DVT diagnosed?

If you think you have a DVT it is important to see your GP or A&E department urgently.

You will be seen by a health care professional who will ask you about your medical history and your symptoms. However, it can be difficult to diagnose DVT from symptoms alone, so you may require the following:

Two-Level Wells Score - this simple calculation is based on history and clinical examination which classifies the likelihood of you having a high, intermediate or low probability of a DVT.

D-dimer - this is a blood test. This is usually positive in DVT but can be positive in other conditions. It is used to exclude DVT, i.e. if the test is negative, a DVT is unlikely.

Doppler Ultrasound scan - this detects a clot in a vein and is used in most patients.

These tests are not 100% conclusive. The health care team may repeat the scan in 7 to 10 days if your symptoms persist.

Why is the DVT treated?

The aim of treating the DVT is to:

- Prevent the clot spreading up the vein and getting bigger. This may prevent an embolism breaking off and traveling to the lungs. This is called a pulmonary embolism (PE).
- Reduce the risk of post-thrombotic syndrome developing.
- Reduce the risk of DVT in the future.

What is the treatment for DVT?

Treatment for DVT is anticoagulation. Currently we tend to use direct oral anticoagulants (DOAC) from day one; these are tablets such as rivaroxaban or apixaban. If you are not suitable for these tablets then you will be offered injections of low molecular weight heparin (LMWH) or warfarin.

If you have cancer then you will be offered daily injections of LMWH. Your health care professional will advise you as to which treatment would best suit you and your medical needs.

DOACs such as rivaroxaban, apixaban, dabigatran and edoxaban reach good blood levels very quickly after being swallowed, which is why they can be started for treatment. However, warfarin takes several days to 'thin' the blood and the dose required varies between individuals. Warfarin is often affected by other medication and diet. Because of this you will require regular blood tests to monitor your INR (International Normalised Ratio) - this measures the clotting level of your blood.

Other oral anticoagulants have few interactions with medication, food and general health; those taking them require fewer check-ups with a healthcare team.

It is very important to remember that anticoagulants only continue to work if you take them regularly and as prescribed.

How long will I need to take anticoagulation?

The length of time you will continue on treatment is usually 3 months if the DVT is "provoked" - this means there was a clear cause, such as admission to hospital, pregnancy or immobility. However, those who have unprovoked clots (no identifiable cause, it happened out of the blue), may need to stay on anticoagulation in the long-term. Your doctor or hospital specialist will advise. You may also be advised to use compression stockings to compress the leg veins if you have a swollen leg afterwards; this helps relieve swelling.

When would I need to seek medical advice?

You should seek medical advice immediately from your nearest hospital A&E if:

- You develop symptoms of shortness of breath
- You have a pain in your chest that is worse when you breathe in
- You collapse (in severe cases)
- You injure yourself, particularly on your head, eyes or joints
- You cut yourself and bleed heavily
- You have a nose bleed
- You notice unexplained bruising
- You vomit blood or pass red urine
- You develop a sudden change in general health
- *Women* - you have a very heavy menstrual period

What precautions should I take?

1. Always inform your dentist or other health care professionals you are taking anticoagulation medication
2. Carry your medication alert card on your person at all times
3. Avoid painkillers with aspirin and NSAID's (Ibuprofen)
4. Avoid crash diets, vitamins or herbal medicines
5. Let your doctor know if you are pregnant or planning on becoming pregnant
6. Avoid contact sport that may cause injury or bruising
7. Take care when brushing your teeth and shaving
8. Avoid walking with bare feet. Wear strong gloves when gardening
9. Alcohol consumption
 Need for moderation (no more than 2 units per day)
 Not to 'binge', especially if you are taking warfarin