

# Patient Information Service

Deep vein thrombosis (DVT) service

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## **Venous Thromboembolism (VTE) Preventing blood clots when you are in hospital**

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## What is DVT?

DVT is a common medical condition that occurs when a thrombus (blood clot) forms in a deep vein, usually in the leg or pelvis, leading to either partially or completely blocked circulation. A DVT in itself is not a serious condition; however it can cause a serious problem known as pulmonary embolus (PE).

## What is PE?

If the clot in the leg breaks off and travels to the lungs, it will cause pulmonary embolus (PE). PE may result in breathing difficulties and may be fatal. Signs of a PE are:

- shortness of breath
- chest pain
- coughing up blood-streaked mucus.

If you experience any of these symptoms, you should seek immediate medical help.

DVT and PE are known under the collective terms of venous thromboembolism (VTE).

## Why can a blood clot form?

There are two factors that may trigger a clot to form:

**Changes or damage to the blood vessels** – if there is pressure on a vein a clot can form. This may be due to being immobile, surgery or long distance travel.

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**Problems with the blood** – this may be inherited (you are born with this condition), caused by some drugs or conditions such as pregnancy.

If you are dehydrated (have not drunk enough water) the blood can become more 'sticky', which can increase the risk of the blood forming a clot.

## Who is most at risk?

There are several factors which increase your chance of developing VTE. These include:

- having had a previous DVT or PE
- major surgery, particularly orthopaedic operations such as a joint replacement
- major trauma or lower limb injury
- aged over 60 years
- family history of DVT or PE
- advanced cancer and chemotherapy treatment for cancer
- faulty blood clotting, ie thrombophilia
- recent medical illness (such as heart or lung disease, kidney failure or disease, recent heart attack, inflammatory conditions such as inflammatory bowel disease)
- smoking
- being obese (very overweight)
- pregnancy and recent delivery

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- paralysis or immobility of the legs including staying in bed for a long time
  - some types of contraceptive pill or HRT.

The risk of a blood clot forming after an operation ranges from 10 per cent to 40 per cent depending on the type of operation. Orthopaedic surgery carries the highest risk.

## Is travelling a risk?

Because being immobile increases the risk of developing blood clots, if you travel for more than three hours at one time in the month before or after your surgery, your risk of a blood clot forming will be higher.

If you have had major joint replacement surgery, the risk is present for up to three months, particularly for long haul flights over four hours.

## How is VTE prevented in hospital?

Not all VTE can be prevented, but the risk of developing a clot can be significantly reduced.

Either in the pre-admission clinic, or when you are admitted to hospital, your risk will be assessed by doctor or a nurse.

If you are considered to be at risk of VTE, a drug called heparin will be given to you. Heparin is given as a small injection once a day.

Some people who have had hip or knee replacements may be treated with a different blood thinning treatment which is a tablet **after their operation.**



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If you are unable to have heparin injections (because of a medical condition or the type of surgery you are having), you may be asked to wear compression stockings.

You may have heparin and wear anti-embolic stockings.

Your leg muscles are inactive during prolonged bed rest. Anti-embolic stockings reduce pooling of blood in the deep veins and increase blood flow to the heart.

Your legs will be measured for the correct size of stockings. It is important that you wear your stockings correctly. Do not roll them down and remove stockings daily to wash your legs.

## **What can I do to help myself?**

Whilst the doctors can do something to reduce your risk, there are some very important and simple things that can help to reduce your risk:

- make sure that you get up and about as soon as possible
- exercise your legs whilst in bed
- make sure you drink plenty – water is particularly good for you.

## **How effective is preventative treatment?**

Heparin reduces the risk of developing a DVT by up to 50 per cent and the risk of a PE by up to 65 per cent. For some types of surgery it is recommended that the preventative treatment is continued for four weeks afterwards.





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## What can I do once I go home?

Once you get home it is important to:

- continue treatment if required
- continue to be as mobile as possible
- stop smoking – if you smoke contact the NHS stop smoking service on **0800 169 0 169** for information and help. Alternatively log on to the website **[www.gosmokefree.nhs.uk](http://www.gosmokefree.nhs.uk)**
- continue to drink plenty of water.

## What are the symptoms of a DVT?

Typical symptoms in the leg include swelling, pain, calf tenderness and occasionally heat and redness compared to the other leg.

There are other causes of a painful and swollen calf, particularly after injury or surgery so you should ask your GP to take a look. You will be asked to come to hospital as a matter of urgency if a DVT is suspected.

## What will happen if I get a blood clot?

As already mentioned, it is still possible to get a blood clot even if you have received heparin or are using other types of prevention. If you get any of the symptoms of a DVT please inform your doctor immediately.

If required, you will be given treatment.





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## Can VTE be treated?

Yes, and the treatment is very effective if the symptoms are recognised early.

The aim of the treatment is to prevent the clot spreading and let it slowly dissolve.

## Further information

If you would like more information, please ask a member of the team caring for you.

**Life Blood**, the thrombosis charity, provides detailed information about all aspects of thrombosis. Their aim is to 'stop the clots' through a programme of education and research.

Life Blood c/o The Thrombosis & Haemostasis Centre  
Level 1, North Wing  
St Thomas' Hospital  
London  
SE1 7EH  
**0207 633 9937**

Or visit their website at: [www.thrombosis-charity.org.uk](http://www.thrombosis-charity.org.uk)



# Patient Information Service

If this leaflet does not answer all of your questions, or if you have any other concerns please **contact your GP or NHS Direct (or NHS 111)** which is available 24 hours a day, seven days a week.

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

For a translated, large print or audio tape version of this document please contact:

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