Deep Vein Thrombosis (DVT) and Warfarin
A guide to your diagnosis and treatment
Information for patients, relatives and carers

Anticoagulant Clinic
Tel: 01904 726785
The York Hospital, Wigginton Road, York, YO31 8HE

⚠️ For more information, please contact:
Medicines Information
Scarborough Hospital Tel: 01723 385170
The York Hospital Tel: 01904 725948
<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is a deep vein thrombosis?</td>
<td>2</td>
</tr>
<tr>
<td>Why do they occur?</td>
<td>3</td>
</tr>
<tr>
<td>What are the signs and symptoms of a DVT?</td>
<td>5</td>
</tr>
<tr>
<td>Why do I need an anticoagulant?</td>
<td>6</td>
</tr>
<tr>
<td>How long do I need to take anticoagulants for?</td>
<td>7</td>
</tr>
<tr>
<td>What are the possible side effects of the treatment?</td>
<td>7</td>
</tr>
<tr>
<td>Allergic reactions</td>
<td>8</td>
</tr>
<tr>
<td>General advice</td>
<td>8</td>
</tr>
<tr>
<td>How can I help to prevent a DVT from recurring?</td>
<td>9</td>
</tr>
<tr>
<td>What are the long-term consequences of a DVT?</td>
<td>10</td>
</tr>
<tr>
<td>When should I seek urgent medical advice?</td>
<td>13</td>
</tr>
<tr>
<td>References and further information</td>
<td>13</td>
</tr>
</tbody>
</table>
Deep Vein Thrombosis and Anticoagulants

What is a deep vein thrombosis?

A deep vein thrombosis (DVT) is a blood clot that forms in a vein that passes through the muscles in your thigh and calf. These are blood vessels that take blood to your heart. When you have a DVT, the blood flow in the vein can be partially or completely blocked. Rarely, this can occur in other deep veins in your body.

Vein within calf muscle

Vein wall

Deep vein thrombosis

Part of the clot may break off and travel up the vein

Blood clot stuck to inside lining of the vein
Why do they occur?

The blood flow in these veins is helped along by muscle contractions as your leg moves. Sometimes a clot can develop for no apparent reason. The following factors may increase the risk of having a DVT:

- **Immobility**, which causes blood flow in the veins to be slow. Slow-flowing blood is more likely to clot.

- **A surgical operation where you are asleep for over 60 to 90 minutes (1-1.5 hours)** is the most common cause of a DVT. Blood flow in the leg veins can become very slow, making a clot more likely to occur. Certain types of surgery (particularly operations on the pelvis or legs) increase the risk of DVT even more.

- **Any illness or injury that causes immobility** increases the risk. This includes having a leg in a hard plaster cast after a fracture. People who are admitted to intensive care units are at an increased risk of DVT, for a number of reasons, but mainly because they are very ill.

- **Long journeys by plane, train or coach/car** may cause a slightly increased risk. This is because you are mostly sitting still and not moving around very much.
• **Damage to the inside lining of the vein** increases the risk of a blood clot forming. For example, a DVT may damage the lining of the vein. So, if you have a DVT, then you have an increased risk of having another one in the future. Some conditions such as vasculitis (inflammation of the vein wall) and some drugs (for example, some chemotherapy drugs) can damage the vein and increase the risk of having a DVT.

• **Conditions that cause the blood to clot more easily than normal** (thrombophilia) can increase the risk. Some conditions can cause the blood to clot more easily than usual. Examples include, nephrotic syndrome and antiphospholipid syndrome. Some rare inherited conditions can also cause the blood to clot more easily than normal. An example of an inherited blood disorder that can cause DVT is factor V Leiden mutation.

• **The contraceptive pill and hormone replacement therapy** (HRT) which contain oestrogens can cause the blood to clot slightly more easily. Women taking the pill or HRT have a small increased risk of DVT.

• **People with cancer or heart failure** have an increased risk. Sometimes a DVT happens in a person who has not yet been diagnosed with cancer. Investigations looking for the cause of a DVT may show cancer to be the underlying cause.
• Older people (over 60 years of age) are more likely to have a DVT, particularly if you have poor mobility or have a serious illness such as cancer.

• Pregnancy increases the risk. About 1 in 1,000 pregnant women have a DVT while they are pregnant, or within about six months after they give birth.

• Obesity also increases the risk.

• Dehydration can make a DVT more likely to happen. Effectively the blood becomes more sticky and liable to clot.

What are the signs and symptoms of a DVT?

• Increased pain
• Tenderness
• Swelling and redness
Why do I need an anticoagulant?

Anticoagulation is often referred to as ‘thinning your blood’. An anticoagulant does not actually thin the blood but alters the blood clotting process to stop clots from forming so easily. This prevents the clot from growing bigger and stops new clots from forming.

Warfarin is the most common anticoagulant used. Your yellow ‘oral anticoagulation therapy’ pack provides more detailed information about warfarin. It takes a few days before warfarin tablets start to work, therefore heparin injections are often given in the first few days for immediate effect.

You will need regular blood tests during this treatment to ensure that your blood clotting is maintained within the correct range. You will need these very regularly at first until the correct dose of warfarin has been established. Blood tests will then become less frequent. Illness and other medicines can alter the effects of warfarin. You must inform your clinic if you become unwell or your medicines change.
How long do I need to take anticoagulants for?

The length of time depends on many factors. Your doctor will advise you about this. You will usually have to take warfarin for three to six months depending on the location of the blood clot in your leg(s) and your previous medical history. If you have had a blood clot before you may have to continue taking warfarin for the rest of your life. Your doctor will discuss this with you.

If you are pregnant or the doctor thinks you are not suitable to have warfarin treatment you will continue to receive heparin injections.

What are the possible side effects of the treatment?

If you take your medication as recommended, it is unlikely that you will experience any problems. However, both heparin and warfarin increase the risk of bleeding. If you experience any of the following, you must contact your GP immediately, or seek urgent medical advice.

- Blood in your bowel motions or urine
- Coughing or vomiting blood
- Heavy or persistent nose bleeds
- Unexplained visible bruising
Allergic reactions

Possible allergic reactions to heparin or warfarin include difficulty breathing, skin rash and itching. If you suspect that you are having an allergic reaction to your medication you need to seek urgent medical attention from your GP or the emergency department.

General advice

Pain relief: Paracetamol is safe to take with warfarin. Aspirin and non-steroidal anti-inflammatory drugs e.g. ibuprofen, should be avoided, unless under the guidance of your GP.

Other medication: Your current medications have been reviewed by the doctor before starting warfarin. It is important that you always check any changes in prescribed dose or new medications with your GP or pharmacist. Herbal or alternative remedies may interact with warfarin and you must make sure they are safe to take with your treatment.
How can I help to prevent a DVT from recurring?

- Avoid long periods of immobility such as sitting in a chair for long periods of time. Try to walk around every so often or you can perform calf exercises whilst sitting down. These can be carried out by flexing the muscles in your legs occasionally, and keep moving your toes and ankles to help blood circulation.

- When you travel on long flights or train journeys, try to have short walks up and down the aisle and perform calf exercises whilst you are sitting down.

- If you are advised to wear a compression stocking, ensure that you put it on every day whilst lying in bed before getting up. Try to rest the leg in the evenings with your leg raised. Wear the stocking for the whole day until you go to bed.

If you go for any operation, anaesthetic or any in-patient hospital stay, you must tell the medical and nursing staff that you have had a DVT or pulmonary embolism (PE) in the past. This will ensure that the staff take precautions in preventing further episodes.
What are the long-term consequences of a DVT?

Post-thrombotic syndrome:
Without treatment, up to six in ten people who have a DVT develop long-term symptoms in the calf. This is called 'post-thrombotic syndrome'. Symptoms occur because the increased flow and pressure of the diverted blood into other veins can affect the tissues of the calf. Symptoms can range from mild to severe and include: calf pain, discomfort, swelling, and rashes. An ulcer on the skin of the calf may develop in severe cases.

Most people who develop a DVT are advised to wear compression stockings. (Class 3 British / class 2 European). This treatment has been shown to reduce the risk of a recurrent DVT, and can also reduce the risk of developing post-thrombotic syndrome. You should wear the stocking each day, for at least two years. It is recommended that you put the stockings on each morning and remove them before you go to bed. If you do develop post-thrombotic syndrome, you may be advised to wear the stockings for more than two years.
Note: a compression stocking used following a DVT should be fitted professionally after an assessment and accurate measurement and is obtained on prescription initially from the hospital doctor, then after six months via prescription to the hospital orthotic department from your own GP. Do not just buy 'over the counter' support stockings that may be the wrong class or size and which may potentially cause more damage.

- Walking is thought to improve circulation in the affected leg and may help to reduce your risk of further DVT.

- When you are resting, as much as possible - raise your leg. This reduces the pressure in the calf veins, and helps to prevent blood and fluid from 'pooling' in the calves. 'Raised' means that your foot is higher than your hip so gravity helps with blood flow returning from the calf. The easiest way to raise your leg is to recline on a sofa with your leg up on a cushion.

- Raise the foot of the bed a few inches if it is comfortable to sleep like this. This is so your foot and calf are slightly higher than your hip when you are asleep.
Diet and alcohol: It is advisable to eat a healthy balanced diet, and to avoid excessive changes in your weight during your treatment.

Alcohol can interfere with warfarin therefore it is recommended that you do not exceed one to two units of alcohol per day.

Travel: You are able to continue to drive, if your symptoms allow, but ensure that you can perform an emergency stop. If you have any further queries regarding travel please speak to your GP for advice.
When should I seek urgent medical advice?

A possible serious complication of a blood clot is a pulmonary embolism (PE). This is where a blood clot becomes dislodged, passes through your circulation and reaches your lungs.

If you experience any of the following possible:

- Unusual sudden onset of breathlessness or chest pain
- Coughing up blood
- Any episode of collapse
- Fast heart rate, racing pulse or palpitations

Call 999 urgently (or 112 if you are using a mobile phone). Tell the operator that you have been recently diagnosed with a DVT.

For more information about DVT, you can visit the following website: www.patient.co.uk or talk to your doctor.

References and further information

Department of Health: www.dh.gov.uk
NHS Choices: www.nhs.uk
Tell us what you think

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact Anticoagulant clinic, The York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 726785.

Teaching, Training and Research

Our Trust is committed to teaching, training and research to support the development of staff and improve health and healthcare in our community. Staff or students in training may attend consultations for this purpose. You can opt-out if you do not want trainees to attend. Staff may also ask you to be involved in our research.

Patient Advice and Liaison Service (PALS)

Patients, relatives and carers sometimes need to turn to someone for help, advice or support. Our PALS team is here for you.

PALS can be contacted on 01904 726262, or via email at pals@york.nhs.uk

An answer phone is available out of hours.
Please telephone or email if you require this information in a different language or format
如果你要求本資訊是以不同的語言或版式提供，請致電或寫電郵
Jeżeli niniejsze informacje potrzebne są w innym języku lub formacie, należy zadzwonić lub wysłać wiadomość e-mail
Bu bilgileri değişik bir lisanda ya da formatta istiyorsanız lütfen telefon ediniz ya da e-posta gönderiniz

01904 725566
email: access@york.nhs.uk

Braille Audio e.g. CD
Large print Electronic

Author Darren Fletcher, Improvement Manager
Owner Jayne Oliver, Anticoagulation Nurse Specialist
Date first issued March 2009
Review Date June 2016
Version 3 (issued July 2014)
Approved By Medicines Policy Group – January 2014
Document reference PI 511 v3

© 2015 York Teaching Hospital NHS Foundation Trust. All rights reserved.