

# Preventing blood clots (Deep vein thrombosis and pulmonary embolism)

Information for patients

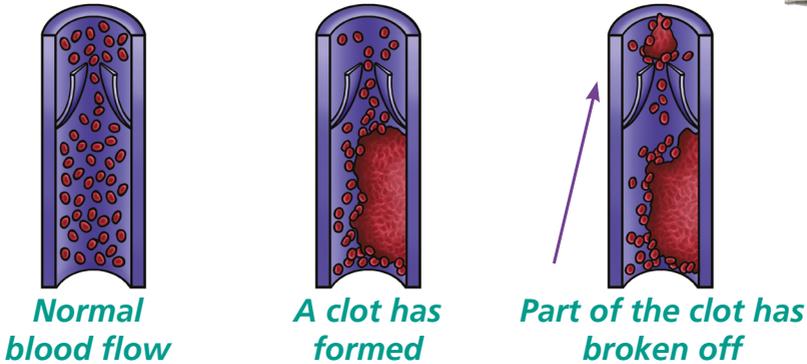


Please read this leaflet carefully. It will give you information about decreasing the chance of developing a blood clot during and after your hospital stay.

## What is Venous Thromboembolism (VTE)?

*There are two types of VTE:*

- **Deep Vein Thrombosis (DVT):** a DVT is a blood clot (also known as a thrombosis) that forms in a deep vein, most commonly in the legs.
- **Pulmonary Embolism (PE):** if all or part of the DVT breaks free and passes through your blood vessels, it can reach your lungs. This is called a PE.



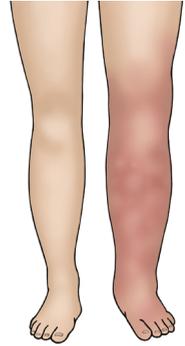
## Signs and symptoms of VTE

**DVT** - Symptoms can include swelling, redness/discolouration, warmth and tenderness/pain that may be worse when standing or walking. Occasionally there are no symptoms except pain. DVTs can cause long term complications such

as permanent leg swelling, leg ulcers, painful/aching legs and changes in skin colour.

**PE** - Symptoms can include coughing, chest pain, breathlessness, blood stained phlegm and collapse.

VTEs often occur in people who are moving around less than they usually do. This can occur during an admission to hospital.



## Am I at risk of developing a VTE?

The patients at highest risk of developing a blood clot include those with major injuries, serious medical illness or those people who have had major surgery. Your risk is increased because you are in hospital and you are ill.

Some patients are known to be at a higher risk than others due to a range of other factors.

### *These include:*

- Past history of VTEs.
- Cancer and its treatment.
- Being overweight.
- Reduced mobility (not walking or moving around).
- Combined contraceptives (i.e. the Pill, the contraceptive patch (Evra®) or the vaginal ring (Nuvaring®).
- Hormone replacement therapy (HRT).
- Recent surgery especially on hips or knees.
- Age over 60 years.

- Pregnancy, given birth in the past six weeks or had a termination of pregnancy or miscarriage.
- Dehydration.
- Smoking.
- Varicose veins with phlebitis.
- A close relative has had a blood clot e.g. mother, father, brother, sister, child.
- Known thrombophilia (inherited blood clotting disorders).
- Long distance travel of more than four hours within the last eight weeks.

If you think that you have any of these conditions or are taking any of the medicines listed, talk to your hospital doctor (either when you come into hospital or at your pre-operative assessment appointment).

## How will I know my risk of developing a VTE?

When you come into hospital your doctors will assess your risk of developing a clot. During your hospital stay your risk may change so you will be re-assessed throughout your stay.

## What can I do to reduce my risk of developing a VTE?

*You can help reduce your risk of developing a VTE by:*

- drinking plenty of water or other non-alcoholic drinks to keep hydrated (unless advised otherwise);
- moving around as much as you can;
- wearing the anti-embolism stockings or other devices you are given;

- Taking any medication you have been prescribed.

***Carry out the following leg exercises (even if you are in bed):***

- Lying on your back or sitting, bend and straighten your ankles quickly 10 times.
- Keep your knees straight during the exercise to stretch your calf muscles.
- Try to do this exercise two or three times an hour.



## **How will hospital staff help me reduce my risk?**

There are a number of methods that can be used to reduce your risk of developing a VTE. The methods that you use during your hospital stay will depend on your level of risk.

***Some of the ways that we reduce the risk are:***

- Encouraging you to remain as mobile as possible. This may include asking you to regularly perform the leg exercises discussed above when you are in bed or sat in a chair.
- Encouraging you to drink plenty of fluids. If you cannot drink, this fluid may be provided by a drip into your vein.
- Offering you elastic stockings to be worn on both legs. These encourage blood flow through the legs and reduce the risk of VTEs. It is important that stockings are the correct size so your legs will be measured to ensure correct fit. You may find them a little uncomfortable and tight at

first, but most people get used to them. If you are given anti-embolism stockings please read page eight.



- If you are in bed for a long time then you may be treated with pumping devices that are wrapped around each of your legs. They are very simple to use and feel similar to a blood

pressure cuff. The inflatable device is inflated on your legs regularly for short periods to encourage blood flow.

- Giving you a daily injection of a low-dose heparin. This medicine thins the blood and makes VTEs less likely to form. These injections go just under the skin into the fatty layer and are usually given in the stomach, thigh or upper arm. The injection is usually given at approximately 6.00pm in the evening.



If you are prescribed low-dose heparin please read page 10.

If you have any questions about the risk of developing a VTE whilst in hospital, or about any of the things described above to reduce the risk, speak to your doctor or any of the nursing staff.

## How will I be monitored during my admission?

Members of the nursing and medical team will review your

progress throughout your in-patient stay.

***It is important to report to the nurse or doctor any of the following symptoms:***

- Breathlessness
- Chest pain
- Tenderness, swelling or pain in your calf or thigh.
- Bleeding or unexplained bruising (if you are being given heparin injections).

## **How can I reduce my risk after going home from hospital?**

You should continue to drink plenty of water or other non-alcoholic drinks to keep hydrated (unless advised otherwise) and move around as much as you can.

## **Anti-embolism Stockings**

If you have been prescribed anti-embolism stockings please read this page.

If you have been prescribed anti-embolism stockings the nursing staff will measure your legs and provide you with the correct size stockings, they will show you how to fit the stockings yourself if you are able to do so.

Patients are sometimes sent home with anti-embolism stockings to wear until their mobility is no longer significantly reduced. If you are unable to fit the stockings yourself you will only be sent home with them if you have a relative/carer who can fit them for you.

## *How do I use the elastic stockings?*

- Stockings should be worn day and night.
- They should be removed for a maximum of 30 minutes every day to allow for washing/bathing.
- Apply a non-perfumed moisturiser after you dry your legs. Whilst washing your legs look at the skin. If there are any signs of blisters or red marks that do not disappear, particularly on the heels, shin and toes, you should stop wearing the stockings and inform the nurse/doctor. You should check your skin for signs of sores, discolouration or bruising at least daily, this can be done when changing the stockings or by opening the toe hole and exposing the foot and ankle areas.
- If you experience tingling or numbness in your legs remove the stockings and inform the nurse/doctor.
- If stockings feel too tight, painful or the skin is sore or discoloured, remove them and inform the nurse/doctor.
- Never roll down the tops of the stockings as this may restrict the blood flow in your legs.
- Ensure the stockings are not wrinkled. Otherwise they will dig into the skin underneath and can cause tissue damage.
- The stockings should be washed as per manufacturers' instructions, the temperature should not exceed 75°C and the stockings must be air dried.
- When you are discharged from hospital you will be informed how long you need to continue wearing the stockings for; it is important that you follow this advice.



- The stockings are only available from the ward so if further supplies are required you will need to phone the ward to request them.

*If you encounter any of the issues described above after you have been discharged home telephone the ward you were on and ask them for advice.*

## Low Dose Heparin Injections

If you have been prescribed low dose heparin injections please read this page.

If you have been prescribed low dose heparin injections the nursing staff will teach you or a relative/carer how to administer the injections so that you are able to do them yourself if you are sent home with them.

**Low-dose heparin is made from pork derived heparin.**

If you have any questions or concerns about this, please speak to your nurse, pharmacist or doctor.

There is a risk of bleeding following the use of heparin. You will be assessed for your risk of bleeding. Let the doctors or nurses know if you develop unexplained bruises or any bleeding.

## *Step by step guide to administering low dose heparin injections:*

- Low Molecular Weight Heparin (LMWH) should be administered at approximately the same time each day. If necessary the time of administration can be moved backwards or forwards by two hours per day.
- When you are discharged from hospital you will be informed how long you need to continue the injections for; it is important that you follow this advice.
- Wash hands thoroughly with soap and water.
- Choose an appropriate site on the abdomen for injection.
- Use a different injection site each day.
- Avoid injecting 5cm (2 in) around the belly button and do not inject near to any bruising or scars.
- When you are ready to inject remove the grey needle cap from the syringe.
- Hold the syringe in your writing hand like a pen, with the other hand gently pinch a fold of skin (approximately an inch) between your thumb and index finger.
- Gently but firmly insert the needle at a 90 degree angle and continue to hold the skin.
- Push the plunger down slowly to inject the LMWH over 10 - 15 seconds.
- Keep the plunger pressed down and remove the needle from your skin keeping it at a 90 degree angle and then



release the skin fold but keep hold of the plunger.

- Do not rub or massage the area as this can cause bruising.
- Push the plunger down further. This will activate the protective needle cover.
- Put the used syringe into the sharps bin.

## Disposal instructions

**Option 1** - Carefully place the syringe needle first directly into a sharps bin. The used sharps bin should be closed and locked as directed. Locked sharps bins should be returned to LTHT for disposal.

### Side effects:

If you experience any side effects please contact your doctor, pharmacist or nurse. This includes any possible side effects not listed in the patient information leaflet (PILS) which comes with the drug. You can also report side effects directly via the yellow card scheme at:

[www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard)

## What do I do if I develop symptoms when I go home?

If you develop sudden shortness of breath and or chest pain ring 999.

If you develop new swelling, tenderness and/or pain of your thigh or calf you should ring your GP or visit the Emergency department.

### *Useful sources of information:*

- Please ask your doctor, nurse or pharmacist for more information
- NHS Choices website for patient information on blood clots.  
Visit [www.nhs.uk/Conditions/Thrombosis](http://www.nhs.uk/Conditions/Thrombosis)
- NHS 111 service - Please call 111
- Lifeblood: The thrombosis charity also has more information.  
Visit [www.thrombosis-charity.org.uk](http://www.thrombosis-charity.org.uk)