

Preventing a blood clot whilst you are in hospital

This leaflet discusses the risks of having a blood clot whilst you are in hospital and outlines what you and your doctor can do to reduce this risk

What are deep vein thrombosis (DVT) and pulmonary embolism (PE)?

Deep vein thrombosis (DVT) is the name given to a blood clot which forms inside a vein, usually in the deep veins of the leg, and blocks the flow of blood. This can cause the leg to become painful and swollen.

Pulmonary embolism (PE) occurs when a fragment of blood clot in a leg breaks loose and becomes lodged in a blood vessel in the lungs. This is a potentially serious condition which can cause pain, breathlessness, and a lack of oxygen in the blood.

Collectively deep vein thrombosis and pulmonary embolism is known as **venous thromboembolism or VTE**.

Am I at risk of developing VTE whilst in hospital?

As part of your admission to hospital your healthcare professional will consider a series of questions. These questions are about factors that are particularly associated with the development of VTE.

Questions they may ask

- Are you aged over 60 years?
- Are you overweight?
- Do you have cancer?
- Are you pregnant?
- Are you taking the contraceptive pill or hormone replacement therapy (HRT)?
- Have you had venous thrombosis in the past?
- Are you known to have a clotting tendency (thrombophilia)?
- Has anybody in your close family had venous thrombosis?
- Do you have any kidney diseases such as the nephrotic syndrome?
- Do you have any bowel disorders such as inflammatory bowel disease?



What can I do to reduce the risk of developing VTE? If you can start before your planned admission to hospital.

- Eat a balanced diet and keep well hydrated by drinking plenty of water.
- Keep mobile, move around as much as possible in the weeks before your surgery.
- Take care on journeys. If you can, avoid uninterrupted journeys of over three hours in the month before your surgery.
- If you do need to make a long journey, try to move your legs regularly. If travelling by car, take a break and walk around every two hours.
- Talk to your doctor if you are taking the contraceptive pill or HRT, as these medicines may increase your risk of DVT or PE.

What will be done when I come into hospital?

Your clinical team will assess your risk of VTE and will discuss with you what will be done to reduce your risk of developing a VTE.

The risk assessment will be done as soon as possible after you come into hospital or in the preassessment clinic, if you are having a planned procedure.

The nurse or doctor carrying out the assessment will ask you about all the risk factors already mentioned - your individual risk factors.

They will also look at:

- the nature of your current illness
- how long you are likely to be in hospital; and
- whether you will be having any surgery.

In addition to your individual risk factors, the type of surgery you are having will also determine the treatment you have to reduce your risk of VTE.

What treatment will I be given to reduce the risk of VTE?

The treatments recommended for you will depend on the result of your risk assessment and will be discussed with you by your doctors. These may include the following.

1. Medication

You may be given drug treatment to stop your blood from clotting too quickly; these medicines are called anticoagulants. You may be treated with heparin injections such as enoxaparin or with anticoagulants taken in tablet form called rivaroxaban or apixaban. If you already take an anticoagulant medication such as warfarin, your doctor will talk to you about what anticoagulation treatment is suitable for you while you are in hospital.

Some heparins contain animal products, if you are concerned about having animal products, please let your doctor know.

Anticoagulants can increase the risk of bleeding, so please discuss with your doctor what to look out for.

2. Special stockings

These are called anti-embolism stockings (AES). They have been shown to reduce the risk of DVT by reducing swelling and preventing blood from collecting in the veins.

Anti-embolism stockings are **not** recommended for people who have:

- poor circulation (peripheral vascular disease)
- loss of feeling in their lower legs (neuropathy)
- leg ulcers
- had a recent skin graft
- extreme deformity of their legs
- very swollen legs; or
- have had an acute stroke.

Let staff know if you have any skin allergies.

How are anti-embolism stockings fitted in hospital?

AES should be fitted, so before wearing stockings staff should take your measurement for below knee stockings and thigh measurement if measuring for thigh length stockings.

Measuring for correct stocking size



**Around your ankle
(below knee stockings)**

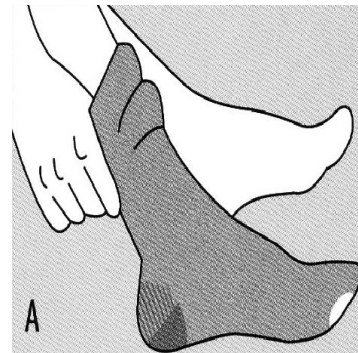


**Upper thigh
(thigh length stockings)**

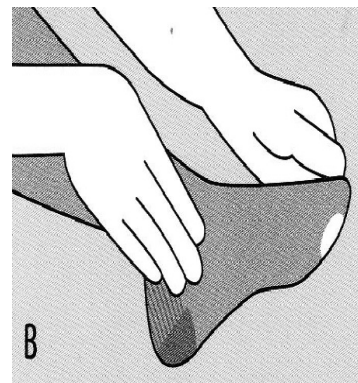
How do I put my stockings on?

- Check the stocking is not inside out.
- Insert your hand into the stocking as far as the heel pocket.
- Firmly grasp the centre of the heel pocket and keeping hold of the heel turn the stocking inside out to the heel area.

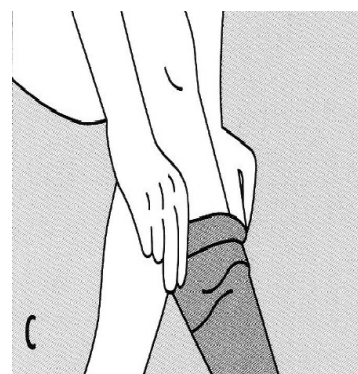
- Grasp the excess stocking at the front of your foot.
- Put the stocking over your ankle and ease the fabric up your leg, avoid dragging the stocking against your skin.



- Smooth out any excess material causing creases at your foot by pulling the open toe section of the stocking forward.
- Make sure your toes are covered and the open section is comfortably placed under your toes.
- **Do not push your toes through the open toe area.**



- Pull the stocking up over your calf, making sure you smooth out any wrinkles that appear, and that the band at the top is smooth and not rolling over.
- **Make sure the stocking finishes two fingers width down the back of your knee joint; this is important for blood flow.**



It is important not to roll the stocking down your leg or to fold the toe section back on itself. This can reduce the blood flow in your legs and put you at risk of developing a blood clot in your leg.

Special points to note about your stockings

- Stockings should be worn throughout the day and night to be most effective.
- Stockings should be removed every day, so that your skin can be washed and your heels and other pressure points checked thoroughly for sore or broken areas. It is not advisable to leave them off for longer than 30 minutes, as this may reduce their effectiveness.
- Make sure that your stockings are wrinkle free and not rolled down, as this may restrict the blood supply to your leg.
- Oil products should not be put on your legs, as they may damage the fabric of the stockings. Emollients (moisturising treatments added directly to the skin to soothe and hydrate it) such as aqueous cream may be used if your skin is very dry, but you must make sure it is well rubbed in.
- If you experience any tingling, numbness, pain, blistering, or redness in your legs whilst wearing the stockings, please tell a member of staff immediately.

How do I remove my stockings?

Pull down from the top of the stocking, down your leg and then over your heel and foot. This will leave the stocking inside out - turn the stocking back to its right side before refitting.

3. Foot or leg pumps

These are called intermittent pneumatic compression (IPC) and have also been shown to reduce the risk of DVT by gently compressing your leg. This increases blood flow and stops blood pooling in your leg to create clots.

IPC sleeves are not recommended for people who have:

- acute or suspected DVT or PE
- severe peripheral vascular disease
- severe skin problems on their legs
- massive oedema of the legs or pulmonary oedema from congestive heart failure
- peripheral neuropathy; or
- unusual leg size, shape, or deformity preventing a correct fit.

Your legs should be measured before fitting to make sure the correct size sleeves are used. The sleeve should fit snugly round your leg or foot but you should still be able to get two fingers under it.

Special points to note about foot or leg pumps

- Sleeves should be worn 24 hours a day.
- Sleeves should be removed daily for bathing and to check your skin.
- Please check your sleeves are inflating regularly and are not switched off.
- Let staff know if the sleeve feels either too loose or too tight.
- If you have any tingling, numbness, pain, blistering, or redness in your legs whilst wearing the sleeves, please tell a member of staff immediately.



How can I help myself while in hospital?

- You should try to keep as **mobile** as possible while in hospital.
- Do not sit or lie with your legs crossed and, if possible, make a point of wriggling your feet on a regular basis.
- If you have had an operation, moving around as soon as possible after surgery is particularly important.
- It is also important to **avoid becoming dehydrated**. Please ask your nurse about how much fluid you should be drinking.

What should I do when I return home?

- The length of time you need to continue anticoagulant medication after you go home will depend on your risk factors and whether you have had surgery. For most patients who have not had an operation their medication will stop when they are well enough to leave hospital.
- If you need to continue heparin injections after leaving hospital you may be able to do this for yourself or we will arrange for the district nursing service to do it for you. Your doctor or nurse will discuss this with you; please let them know if there is anyone at home who can help you with giving the injections.
- Ask the staff whether you need to continue wearing the stockings at home. You should normally wear these until you are back to full mobility following discharge from hospital.
- Tell staff if you are unable to put on or remove the stockings yourself or have no one at home who can do this for you.

How do I care for my stockings at home?

- The stockings can be laundered (washed) up to 16 times.
- The stockings may be hand washed or machine washed on a low temperature cycle and a clean pair put on at least every three days (change daily if physically soiled). They should be allowed to air dry naturally away from direct heat and should not be placed on sources of localised heat such as radiators.

What symptoms of DVT and PE should I look out for and what should I do if I get them?

Symptoms of DVT

- Swelling of the affected leg.
- Pain in the affected leg, the pain may be worse when standing or walking. Usually the pain is worse in the back of the leg.

Symptoms of PE

- Sudden chest or shoulder pain which is made worse by taking a deep breath.
- Breathlessness.
- Cough with blood streaked sputum.

In the unlikely event that you have any of these symptoms you should ask for medical advice immediately.

Who can I contact for more information?

If you would like more information, please ask any nurse or doctor.

Special information:

AES/IPC issued on _____

Leg measurement:

- Ankle circumference (for below knee) _____
- Thigh circumference (for thigh length stockings) _____

Size of AES: (tick as appropriate)

Extra small

Small

Medium

Large

Extra Large

Plus size

Continue to wear AES until _____

This leaflet has been produced with and for patients

If you would like this information in **another language, audio, Braille, Easy Read, or large print** please ask a member of staff. You can ask someone to contact us on your behalf.

Any complaints, comments, concerns, or compliments please speak to your doctor or nurse, or contact the Patient Advice and Liaison Service (PALS) on 01227 78 31 45, or email ekh-tr.pals@nhs.net

Patients should not bring in large sums of money or valuables into hospital. Please note that East Kent Hospitals accepts no responsibility for the loss or damage to personal property, unless the property had been handed in to Trust staff for safe-keeping.

Further patient leaflets are available via the East Kent Hospitals web site www.ekhuft.nhs.uk/patientinformation