

Reducing the risk of a blood clot during and after your stay in hospital

An information guide



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This leaflet will help you understand more about the risk of blood clots, otherwise known as venous thromboembolism (or VTE for short).

Blood clots can form in your body after an illness or after an operation. After reading this guide we would encourage you to discuss with your doctor or nurse the best way in which you can reduce the likelihood of developing this condition.

Blood clots

Whenever we cut ourselves, our blood hardens and a scab forms. This process is called blood clotting or coagulation.

Blood clotting is a natural, protective process that our bodies trigger automatically in response to a cut or wound we might have. It is essential to prevent us from losing too much blood when we cut ourselves.

Sometimes blood clotting can go wrong and a clot of blood can occur within a vein, forming a 'plug' that can interrupt the normal flow of blood through the vessels.

When a clot forms in a deep vein in the leg, this is called a deep vein thrombosis, or DVT. This can cause painful long term swelling and leg ulceration or a dull ache as in tired leg syndrome.

The blood clot itself is not life-threatening, but if it becomes loose or part of it breaks away it can be carried in your blood to another part of your body. If the clot travels to the lungs it is called a pulmonary embolus (PE for short) and can be fatal. Venous thromboembolism (VTE) is the collective name for DVT and PE.

Is venous thromboembolism (VTE) common?

You are much more likely to develop VTE if you are in hospital because of an illness or if you are having an operation. In the UK each year, at least 32,000 cases of VTE relate to being in hospital.

What are the symptoms of having a blood clot?

A DVT can be unseen or unfelt, but may be accompanied by some or all of the following symptoms: pain, tenderness, and swelling of the leg (usually the calf), sometimes accompanied by discolouration with the leg appearing a pale-blue or reddish purple colour. If thrombosis occurs in the thigh veins, the whole leg may be swollen.

The symptoms of pulmonary embolism may include (1) shortness of breath, either severe and sudden, or gradual onset, (2) chest pain which may be worse on inhalation, and (3) sudden collapse. Some or all of these may occur in addition to the symptoms of deep vein thrombosis.

Are you at risk?

In addition to being admitted to hospital some people have certain risk factors which make them more likely to develop a blood clot.

Risk factors include:

- You or a member of your family, having had a blood clot before.
- Having cancer or being treated for cancer.
- Having long-standing problems with your heart or lungs.
- Taking the contraceptive pill or hormone replacement treatment (HRT).
- Having inflamed varicose veins (phlebitis).
- Being pregnant or having recently given birth.
- Being overweight (a body mass index of 30 or more).

- Being unable to move around.
- Being over the age of 60.
- Having had recent surgery or an injury.
- Having a specific disorder which makes your blood more likely to clot
- Making a long continuous journey (of more than about 3 hours) in the 4 weeks before or after your operation (for example, in an aeroplane or train).
- Being dehydrated.
- Suffering a new acute stroke.

Will my risk be assessed?

VTE is taken very seriously. Hospital staff should complete a risk assessment for VTE for all patients who are admitted to hospital. If you are at risk the doctor or nurse will discuss with you what can be done to reduce your risk. If you think you have not been risk assessed then you should ask your doctor to carry out a risk assessment.

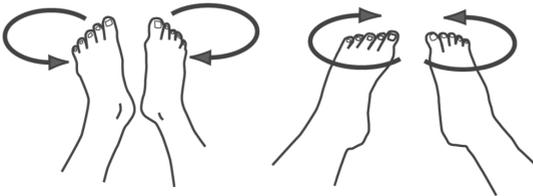
What can I do to reduce my risk?

If your hospital admission is planned in advance, there are some precautions you can take to reduce the risk of VTE:

- If you currently take oral contraception or hormone replacement therapy tablets speak to your doctor about your prescription. Your doctor may consider stopping this treatment in the weeks before your operation.
- Avoid travelling for more than three hours (by car or plane) in the month before your operation.
- Keep a healthy weight.

Carry out the following leg exercises: Rotate each ankle through a 360° turn. Carry this out on each leg, clockwise and anti-clockwise, ten times. Sitting with your legs straight out in front of you, point your toes forward as far as you can, then keeping your legs straight, point your toes up towards your chest. Repeat ten times for each foot.

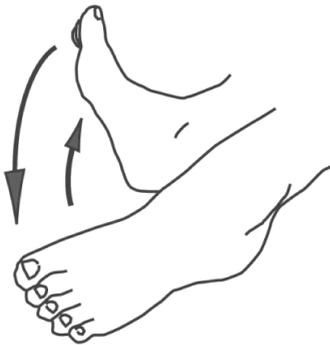
1. Ankle circling in both directions



2. Toes bend/curl and stretch



3. Ankle bend and stretch



When in hospital

- Ask your doctor or nurse what is being done to reduce your risk of VTE.
- Keep moving or walking as much as you can. Leg exercises are helpful - ask to speak to a physiotherapist if you would like more information on this.
- Drink plenty of fluids to keep hydrated.
- Some patients may be prescribed anticoagulant medicines (also known as blood-thinners). These alter certain chemicals in the blood to stop clots forming so easily, a common side effect of these medicines is that you are more susceptible to bruising. Anticoagulants may be administered either as an injection or a tablet. **Enoxaparin, Tinzaparin and Dalteparin injections are of animal origin, therefore if you have any concerns about using animal products please inform your doctor and they will discuss other options with you.**
- You may be given compression stockings (also called anti-embolic stockings) which are specially designed to reduce the risk of blood clots. The stockings squeeze your legs to help the blood flow around the body. The stockings provided will be fitted according to your leg measurements. It is important to wear the stockings correctly, as shown by your health care professional, until you are back to your normal level of activity – please refer to “Anti-Embolism Stockings (AES)” section of this booklet.
- You may also be given an inflatable compression device, such as a foot pump or compression sleeve which is worn around the leg. This is designed to help the blood flow around the body. When inflated (which should be at regular intervals) these devices apply pressure to your legs and feet.
- If you have suffered a stroke you may be required to use this device until you are independently mobile or for your whole hospital stay. It's not appropriate for all stroke patients to use

the device so alternative medications may be considered by your consultant once all the risks have been considered.

What happens when I am discharged from hospital?

Your risk of developing a blood clot can persist after you have been discharged from hospital. Some patients who are at high risk of developing a blood clot will continue to take their anti-coagulation injection or tablet after leaving hospital.

Your doctor will decide if this is needed based on why your risk is increased. Some reasons which can increase your risk are certain surgical procedures, pregnancy and known health conditions, other reasons will also be considered.

Patients who continue with injections after discharge may be taught how to self-inject whilst others may have their injections administered by a district nurse. Some patients may also continue to wear anti embolism stockings at home.

If you experience any problems with these; seek help from your GP.

All patients should take the following precautions after leaving hospital:

- **Try to be as mobile as possible (unless you have been advised otherwise) and continue with any exercises that you have been shown.**
- **Drink plenty of water based fluids to avoid dehydration.**

Take painkillers regularly as needed within prescribed limits.

Signs of a possible clot

There are certain signs to look out for after an illness or an operation that could mean you have a blood clot. Seek medical advice immediately either from your GP, your nearest Urgent Care Centre, or A&E hospital emergency department if you experience any of the following in the days or weeks after leaving hospital:

- Pain in your leg.
- Swelling in your leg.
- The skin on your leg is hot or discoloured (red, purple, blue).
- Your feet are numb or tingling.
- The veins near the surface of your leg appear larger than normal or you notice them more.
- You become short of breath.
- You feel pain in your chest, back or ribs, which gets worse when you breathe in deeply.
- You cough up blood.

Looking after your legs if you've had a blood clot

If you had a blood clot, you may notice swelling in your leg. It may be painful and tender to touch. To help veins recover, you will need to look after both your legs.

- Put your feet up when sitting down. Unless you have had a hip replacement try to rest your legs so that they are higher than the seat of the chair.
- Do not sit with your legs crossed.
- Wear support tights or stockings as prescribed by your nurse or doctor. These may need to be worn for two years or more after having a DVT.
- Take any medication as prescribed by your doctor or nurse.

This section contains information Specifically On Anti-Embolism Stockings (AES).

Anti-embolism Stockings (AES)

What are they?

They are stockings made with firm elastic, giving graduated compression to the leg from the ankle up to the knee. These stockings help to reduce the risk of a blood clot or deep vein thrombosis (DVT) forming in your legs whilst you are less active in hospital.

How do anti-embolisation stockings work?

The graduated compression is thought to have the effect of 'speeding up' the circulation of the blood in your veins. This makes clotting less likely.

How long will I need to wear them?

You will need to wear the stockings day and night until you get back to a much-improved level of mobility. Usually there is no need to wear them after discharge from hospital (unless your doctor or nurse gives specific instructions to do so). If you have had a DVT in the past, extra advice must be sought from the nursing staff or your consultant.

A new pair of stockings should be provided if they become soiled. Please ask staff if you need a clean pair. Please send the dirty pair home to be washed.

How do I put the stockings on?

- Put your hand into the stockings as far as the heel.
- Pinch the heel and turn the stocking inside out as far as possible.
- Put the stocking over your foot and heel. The centre of your heel should be over the heel pocket of the stocking.
- Pull the stocking up and fit around your ankle and up the calf. Ensure that the top of the stocking lies just below the knee.
- Smooth out any excess material, making sure the heel is in the heel pocket. Make sure your toes are clearly visible, and then allow the open toe section to sit below the toe at the underside of the foot.

Staff are always available to assist you if necessary.

The following picture will help guide you in putting your stockings on.



Are there any pitfalls to avoid or problems to look out for?

Don't leave the stockings rolled down as they might form a tight band around your legs which cancels the benefit of wearing them.

- The stockings should be taken off once a day for hygiene purposes and to check for any possible skin changes.
- Avoid using ointments, oils or lanolin on your skin as these can damage the stocking's elastic fibres.
- If a rash develops, it may mean you have an allergy to the elastic fibres in the stockings. Remove the stockings and inform the nursing team.
- Be alert to pain and numbness, pins and needles and discolouration of the toes. This could be a sign that the stockings are too tight. Inform staff immediately if this is the case and they will remove the stockings.
- When moving around, please make sure you are wearing slippers or shoes as the stockings can be very slippery on hard floors.

Stop wearing your stockings and discuss with your GP if you develop any of the following:

- Ulcers to your leg or foot.
- Peripheral arterial disease (narrowing of vessels carrying blood).
- Peripheral neuropathy (damage to nerves).
- Cellulitis (infection in the skin).
- Oedema due to heart failure (build up of fluid due to flow being reduced out of the heart).
- Pulmonary Oedema (fluid in the lungs).
- Peripheral vascular disease (narrowing of vessels carrying blood).

Remember: if you have any of the above problems, please don't delay. Speak to one of the ward staff if you are in hospital or contact your GP surgery if you are at home.

How do I look after my stockings at home?

If your doctor has advised you to continue wearing your stockings after discharge from hospital, please remember to:

- Put on clean stockings at least every three days, or earlier if they have become soiled.
- Wash stockings by hand or in a machine at 40°C or above.
- Do not use bleach or fabric conditioner.
- Hang to dry. Do not tumble dry or leave to dry on the radiator.

What else can I do to prevent a DVT from developing?

- You can exercise your legs whilst in bed, rotating each ankle through a 360° turn. Carry this out on each leg, clockwise and anticlockwise, ten times.
- Sitting with your legs straight out in front of you, point your toes forward as far as you can, then, keeping your legs straight, point your toes up towards your chest. Repeat ten times for each foot.
- If you have no restriction on your fluid intake, try to drink at least one and a half litres of fluid each day.
- Nursing staff may give you an injection in your upper arm or stomach each day. This is a drug to help keep your blood thin and prevent it from clotting.

If you have any further queries about your anti-embolisation stockings, please ask your doctor or nurse.

References

For further information on the references used in this leaflet please visit <https://www.thrombosisuk.org>.

If English is not your first language and you need help, please contact the Interpretation and Translation Service

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