

Patient Information

## Orthopaedics

# Reducing your risk of a Blood Clot while your leg is in a Plaster Cast or is Immobilised

### Why have I been given this information leaflet?

Blood clots or Venous Thromboembolism (VTE) can be a complication of having a limb immobilised following a fracture or injury. You may have had the whole leg or some of your leg placed in a plaster cast, a splint or a protective boot. As you will no longer be able to move the limb as freely as you were able to before the injury there is a risk that a blood clot could form.

A deep vein thrombosis (DVT) is a blood clot in the veins, usually in the leg. This blocks the flow of blood around the body. The symptoms usually only affect one leg and include pain, redness and swelling. The problems that can last a long time after someone has had a DVT include; having a painful swollen leg, leg ulcers and mottling of the skin.

A pulmonary embolism (PE) is a piece of blood clot that has broken off and travelled to the lungs. It causes chest pain and serious breathing problems. Pulmonary embolism can cause lasting lung damage and death in a small number of people.

### Who is at risk?

Blood normally flows quickly through veins and does not normally clot. Blood flowing in the leg veins is helped along by movement of the legs, because muscle action squeezes the veins. Whilst your leg is immobilised you will find it difficult to have the full range of movement you are used to and may potentially be at risk of a blood clot either in the legs or the lungs.

Your doctor or nurse will ensure that you have been properly risk assessed whilst in the Emergency Department and a decision will be made as to whether or not you will require anticoagulation medication to reduce your risk of developing a blood clot.

## **Anticoagulation Medication**

Some patients who have a lower limb immobilised may be at a higher risk of developing a DVT and will need to take some anticoagulation medication to prevent this from occurring.

The doctor or nurse will make the decision to commence you on medications when you are able to leave the department and advise you on when to stop taking them. Anticoagulants (drugs that reduce the risk of blood clots forming) may be used, in the form of a tablet or injection. If you require this medication you will need to continue taking it after you have attended hospital and the nurse will explain how to do this if it is necessary. If you need help with administering injections at home, please ask the nurse attending to you.

If you are prescribed anticoagulation tablets to reduce your risk of developing a blood clot you should be aware that these have not yet been approved to prevent blood clots in people with their legs immobilised in a cast but they have been approved to prevent blood clots in other patients, for example after hip or knee replacement surgery and those who have an irregular heart beat. You may hear this called "off label" or "unlicensed" use of the medication.

At this hospital senior doctors and pharmacists have decided that it is safe to use these medicines in this way. You can ask your doctor or nurse for a copy of the Trust's "Special Medicines (Unlicensed Medicinal Products)" information leaflet to explain more.

If your doctor or nurse has decided that you do not need any anticoagulation medication, this is because you are at low risk of developing a blood clot. All patients will receive a follow up for the fracture clinic or A&E clinic as an outpatient as early as possible.

### **Are there any side effects?**

Because anticoagulation thins blood, it can make you bleed more easily. If you are at risk of bleeding problems your doctor may decide not to prescribe this medication. You should also read the information leaflet in the packet as it will tell you more about the side effects of the medication that you have been prescribed.

### **Is there anything I should look out for when I'm taking anticoagulation?**

Whilst you are taking the anticoagulation you must go to hospital straight away if you notice:

- you are bleeding a lot from a wound
- you have swelling around your wound or anywhere else
- you have a sudden very bad headache
- you have tenderness or swelling in your stomach

You should tell a nurse or doctor as soon as possible if you notice:

- you are bruising more easily than you normally do
- you feel more weak, tired or short of breath than normal

### **How long do I need to take the medication for?**

You will normally have to take the anticoagulation until you are next reviewed in your Consultant Clinic appointment. In some cases, you may be advised that it would be best to continue with it for a longer period – this decision would be made after discussion with your Orthopaedic Doctor. Your repeat prescriptions will need to be requested from your GP.

### **What should I do if I take more anticoagulation than I should?**

If you have more than the prescribed dose in a day, then you should tell your doctor.

### **What should I do if I forget to take my medication?**

If you remember the same day, then take the dose. If you remember the next day, then take your dose when it is next due. Do not take more than the prescribed dose each a day.

### **How can I reduce the risk of developing a blood clot?**

It is difficult to predict who will get a blood clot, but there are steps that can be taken to try and reduce this risk:

- Drink plenty of fluids.
- Mobilise as much as is comfortable.
- Stop smoking (if you smoke) - this will also help your bone to heal.
- Perform the exercises described below.

### **Exercises for reducing the risk of blood clots while in a lower limb cast**

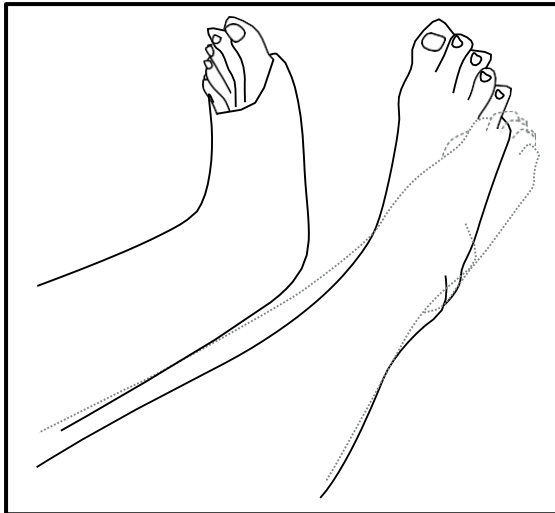
While you have to wear a cast or boot, any activity which promotes contraction of muscles and increased blood flow is helpful.

Try and do the following at least 3 times a day.

### **For any cast/boot on the legs**

Wiggle your toes while lying in bed or whilst sat up with your leg elevated. Try and do this for at least 10 seconds, and as often as you can. This promotes blood flow and can help reduce the risk of blood clotting.

Inside the plaster cast, if it is safe to do so, try and move your ankle up and down. It will not move very much as the cast will stop it. Repeat 10 times.



### **For below knee cast/boot only**

Regularly bend your knee. Sit down, bend your knee and then straighten your knee. Repeat 10 times.

Lie on your tummy on the bed and bend your knee, bringing your heel towards your bottom. Slowly lower your foot back down to the bed, keeping the movement slow and controlled.

Lie on the bed or sitting up with your leg elevated. Keep your leg straight and brace your knee down by tightening the muscles on the front of your thigh.

### **How will I know if I have a blood clot?**

When you have a DVT the blood flow in the vein is partially or completely blocked depending on the width of the clot. A calf vein is the common site for a DVT. A thigh vein is less commonly affected. Rarely, other deep veins in the body form clots.

The affected area of the blood clot may become swollen or painful, and possibly turn red or feel hot to touch as the flow of the blood is blocked. You may also develop swelling, which is the build-up of fluid in the skin tissues surrounding the clot. If the clot is somewhere other than in your leg, there may be no physical signs of DVT.

Sometimes bits of the clot can break up and lodge in the lungs causing a PE causing chest pain, difficulties with breathing and coughing up blood-streaked sputum.

Sometimes a DVT occurs for no apparent reason, and it becomes more common with age. Each year one in every 1,000 people in the UK is affected by DVT.

If you develop any of the signs or symptoms mentioned in this leaflet please seek medical attention immediately.

### **Where can I find out more?**

Please ask your doctor or nurse for more information. Alternatively, the NHS Choices website provides patient information on blood clots: [www.nhs.uk](http://www.nhs.uk)

Some of the content was adapted with permission from Sheffield Teaching Hospitals. (2022). Patient Information leaflet: Rivaroxaban to prevent blood clots for patients who have a lower limb plaster cast. Accessed from:  
<https://www.sth.nhs.uk/patients/patient-information/find-a-leaflet/search-for-a-leaflet?s=blood+clots>

## **PALS**

The Patient Advice and Liaison Service (PALS) is a service that offers support, information and assistance to patients, relatives and visitors. They can also provide help and advice if you have a concern or complaint that staff have not been able to resolve for you. Tel: 02476 865550 Email: [pals@geh.nhs.uk](mailto:pals@geh.nhs.uk)

George Eliot Hospital is a smoke free environment.  
For help and advice to stop smoking you can call the national helpline on 0300 123 1044 or visit <https://quit4good.warwickshire.gov.uk/>

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7686 5550 and we will do our best to meet your needs.



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