

Deep vein thrombosis and legs in plaster casts

Fracture Care Team: Shared Care Plan

Trust Switchboard for both sites: 0300 131 4500

Fracture clinic and orthopaedic outpatient appointments:

Eastbourne 0300 131 4788

Conquest 0300 131 4861

Casting Department: Eastbourne 0300 131 5564

Casting Department: Conquest 0300 131 4860

What is Deep Vein Thrombosis (DVT)?

Blood clotting is a natural mechanism to stop you bleeding from a cut. It is triggered by the body when you have a cut to stop you from bleeding too much. A DVT is a blood clot that forms within a deep leg vein. This blocks the normal flow of blood through the leg veins.

Why does a blood clot form in leg veins?

Normally blood flows freely through veins. It does not usually clot or form a plug within a vein.

Three factors may trigger a clot to form in a vein:

1. A reduced blood flow (e.g. immobility, surgery or long-distance travel);
2. Changes to the clotting mechanism or;
3. Changes to the smooth lining of the blood vessel wall (e.g. trauma, fracture or inflammation).

Who is most at risk?

There are several factors which increase your chance of developing a DVT. Some of the risk factors for DVT include:

- Previous DVT or pulmonary embolism (PE). A PE is a blood clot in the lung - see full explanation on page two of this leaflet.
- Major Orthopaedic operations.
- Trauma.
- Paralysis or immobilisation of lower limbs.
- Family history of DVT or PE.
- Faulty blood clotting.
- Active cancer.
- Recent medical illness (e.g. heart or lung disease, kidney disease/failure or recent heart attack).
- Smoking.
- Obesity/overweight (e.g. BMI > 30 kg/m²).
- Pregnancy.
- Age over 40 years.
- The contraceptive pill or HRT which contain oestrogen.
- Very large varicose veins (not operated on).

What are the risks of developing DVT following plaster casts?

Fractures and lower limb plaster casts on the leg for any foot and ankle injuries are associated with a small risk of DVTs in the leg. The risk is very low. If you also have any of the above risk factors tell your doctor so that he/she can assess your risk factors and advise you regarding preventative treatment against DVT.

If you are at high risk of developing DVT you may be given blood thinning tablets or injections as a prophylaxis whilst the plaster cast is on. There are some complications with this which will be explained by the treating doctor.

What are the symptoms of DVT?

Typical symptoms include pain, calf tenderness and swelling in the whole leg compared to unaffected leg. The calf may be warm and red. Sometimes there are no symptoms in the leg and the DVT is only diagnosed if a complication occurs in the form of a PE. This can cause a serious problem. Sometimes it is difficult for a doctor to be sure of the diagnosis as there are other causes of a painful and swollen calf especially when you have injured your leg. You will normally be seen urgently at hospital if you have a suspected DVT. Tests may be done to confirm the diagnosis.

Is DVT a serious condition?

1. **Pulmonary Embolism:** Blood clot in the leg (DVT) itself is not a serious condition if clot remains stuck to the vein wall. Blood clot can dislodge from the vein wall and travel along to the lung which is called Pulmonary Embolism (PE). This can be a serious problem depending on the size of the embolus. This can present with shortness of breath, rapid heart beat and chest pain. PE is not common but can be life threatening and requires urgent medical attention.
2. **Post-thrombotic syndrome:** DVT can cause inflammation and obstruction in the deep venous system. This complication can produce pain, swelling, discolouration and ulceration of the leg. This is called post-thrombotic syndrome which is a long term problem.

How do I prevent a DVT with my leg in a plaster cast or after removal of cast?

1. Stop smoking. For advice on smoking cessation and local support available, please refer to the following website: <http://smokefree.nhs.uk> or discuss this with your GP.
2. Keep hydrated.
3. Do regular exercises (moving your toes, walk around with the help of crutches etc.)
4. You may be advised to take preventative treatment in the form of blood thinning tablets or injections depending on your risk factors.

What should I do if I get a painful swollen calf within the plaster cast or after removal of the cast?

Some amount of swelling is expected over the initial period following injury to your leg and a plaster cast. If you feel that swelling is increasing within the plaster cast rather than settling down you need to be seen soon by casting practitioners or in the Emergency department to make sure plaster cast is not too tight and also to rule out possibly developing DVT.

If you notice increasing swelling in your whole leg (approximately 3cm more than unaffected leg at the same level) and pain in your calf after removal of the plaster cast, you need to see your doctor or a specialist. You will be seen urgently either in the Emergency department or in the clinic and investigated appropriately with or without an ultrasound scan to rule out DVT.

If I get DVT can it be treated?

DVT is a treatable condition. The aim of treatment is to prevent the clot spreading up the vein and also to prevent serious complication of PE.

Anticoagulation: Once you have a proven DVT you will be given treatment to thin the blood called anticoagulation treatment. You may be admitted to hospital for a few days to have heparin injections (Clexane) and will be started on warfarin, a blood thinning tablet which takes a few days to work fully. You will need regular blood tests (INR check) to get the dose of warfarin just right, so that your blood is not too thin which causes bleeding or too thick which can cause clots again. You will be referred to anticoagulation clinic for further checks and follow up. You will be advised to stop taking warfarin after a few months if the DVT is a one-off event. If DVT is a recurrent event you may be advised to continue warfarin for the rest of your life.

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team – Tel: 0300 131 4731 (direct dial) or by email at: esh-tr.patientexperience@nhs.net

Hand hygiene

The Trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.

Tel: 0300 131 4434 Email: esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse, practitioner or doctor.

Reference

You can also find this leaflet at: www.esht.nhs.uk/leaflet/deep-vein-thrombosis-and-legs-in-plaster-casts/

The following clinicians have been consulted and agreed this patient information:

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Responsible Clinician: Mr P Mestha, Associate Specialist.

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