

Patient information

Deep vein thrombosis (DVT) and pulmonary embolism (PE) advice for ophthalmic surgery patients

What is a deep vein thrombosis (DVT)?

A DVT is a blood clot that forms within a vein deep in the leg but can occur elsewhere. This blocks the normal flow of blood through the leg veins, either partially or completely and so causes leg swelling and tenderness. If a clot breaks off it travels to the lung and causes a pulmonary embolus (PE) which can be serious and occasionally fatal.

What is a pulmonary embolism (PE)?

A pulmonary embolism is caused by a blood clot from the leg passing up the vein to the lung and blocking a blood vessel in the lung. This can have serious and acute effects. It can occur without any symptoms or signs of a DVT.

Why does a blood clot form in leg veins?

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

1. A reduced blood flow allows the blood to clot in the vein (e.g. immobility, surgery or long-distance travel over three hours).

2. Changes to the clotting mechanism which may be inherited, caused by some drugs or conditions such as pregnancy.
3. Damage to the lining of the vein allows the blood to clot (e.g. trauma, surgery or inflammation).

Is DVT a serious condition?

A DVT in itself is not a serious condition if the clot remains stuck to the vein wall however it can give you two problems.

1. **Pulmonary embolism (PE):** The blood clot can dislodge from the vein wall and travel to the lung causing a pulmonary embolism (PE). This can be a serious problem depending on the size of the clot. It can present with shortness of breath, rapid heart beat, chest pain and if severe, coughing up blood or collapse. PE is not common but can be life threatening and requires urgent medical attention.
2. **Post-thrombotic syndrome:** DVT can cause inflammation and permanent obstruction in the deep vein system of the leg. This complication can produce pain, swelling, discolouration and ulceration in the lower leg. This is called post-thrombotic syndrome which is a long term problem.

Who is most at risk?

There are several factors which increase your chance of developing a DVT/PE.

These include:

- Previous DVT or pulmonary embolism (PE)

- Lengthy surgical procedures (over 1½ hours)
- Major limb injury
- Immobility of lower limbs including prolonged bed rest
- Family history of DVT or PE
- Faulty blood clotting which is usually an inherited tendency to blood clots, i.e. thrombophilia
- Active cancer and cancer chemotherapy
- Recent medical illness (e.g. heart or lung disease, kidney disease/failure, recent heart attack, inflammation such as inflammatory bowel disease.
- Smoking
- Obesity (e.g. body mass index (BMI) over 30)
- Pregnancy and recent delivery
- Age over 60 years
- The contraceptive pill or hormone replacement therapy (HRT) which contains oestrogen or a third generation progesterone.

The risk of a thrombosis being present after ophthalmic surgery is less than 1% in cases of a full blown thrombosis as small undetected clots dissolve on their own.

Is travelling a risk?

If you travel for more than three hours at one time in the four week period before or after surgery, your risk for DVT is higher because of the immobility of your legs.

How will DVT/PE be prevented when I am in hospital?

Not all DVTs can be prevented but the risks can be significantly reduced. You will be assessed to see what preventative treatment, if any, you will need depending on your risk factors.

Treatment may include:

- early mobilisation after surgery
- maintaining good fluid intake
- bed exercises to keep the blood flow going in your legs compression stockings for most patients
- a low dose of a blood thinning medicine (heparin, given in a small injection once a day)

What can I do at home?

After you are discharged you should continue to be as mobile as possible as this speeds up the blood flow in the calf veins and helps prevent a thrombosis.

If you have been asked to use the compression stockings make sure they are put on evenly and without wrinkles.

Stop smoking, drink plenty of water.

If you do not take the precautions that have been mentioned to you then your risk of thrombosis and its complications will be higher.

What are the symptoms of DVT?

Typical symptoms in the leg include swelling associated with pain, calf tenderness and occasionally heat and redness compared to the other leg.

There may be no leg symptoms and the DVT is only diagnosed if a complication occurs in the form of a PE.

There are other causes of a painful and swollen calf especially after injury or surgery so you need to ask your GP to assess you and he may ask you to be seen urgently at the hospital if he suspects a DVT.

If I get a DVT can it be treated?

DVT is a treatable condition. The aim of treatment is to prevent the clot spreading up the vein and allow it to slowly dissolve and also to prevent the serious complication of PE, using anti-coagulation tablet treatment (Warfarin) to thin the blood.

You will then be referred to the anti-coagulation service for regular checks and follow up.

If you would like any information regarding access to the West Suffolk Hospital and its facilities please visit the website for AccessAble (the new name for DisabledGo) <https://www.accessable.co.uk/organisations/west-suffolk-nhs-foundation-trust>



© West Suffolk NHS Foundation Trust