VENOUS THROMBOEMBOLISM PREVENTION

How to prevent a blood clot during your hospital stay

EMPOWERING MOVEMENT

Abbreviations

VTE	venous thromboembolism
DVT	deep vein thrombosis
PE	pulmonary embolism
IPC	intermittent pneumatic compression

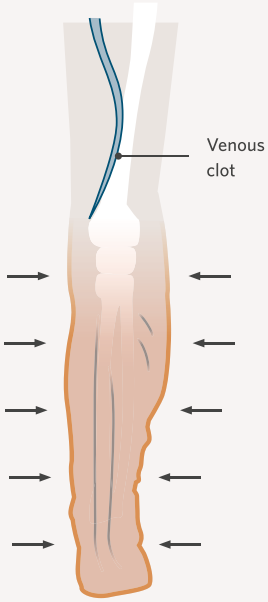
Fast facts:

- If a blood clot (thrombosis) develops in the deep veins of the leg, it is referred to as a Deep Vein Thrombosis or DVT.
- If part of the blood clot becomes dislodged (breaks off) it is referred to as an embolus. This can travel through the blood circulation until it reaches the lungs. This is known as a Pulmonary Embolism or PE.
- Venous Thromboembolism or VTE is the collective term for both DVT and PE.
- VTE is a serious condition that causes death and disability worldwide, with 10 million cases each year.[1]
- Hospitalisation is considered the single most important risk factor for developing a DVT.[2]
- Patients are 100 times more likely to develop a VTE event in the hospital than in the general community.[3]

Why does being a patient increase my risk of developing a blood clot?

Many people who are admitted to hospital have a decrease in the normal flow of blood within the blood vessels (veins).

The blood can slow down and become thick or "sticky" which leads to the formation of a blood clot in the legs, called a Deep Vein Thrombosis (DVT).



Leg with DVT

Swelling and inflammation below the blockage site. The leg may be warm to the touch.

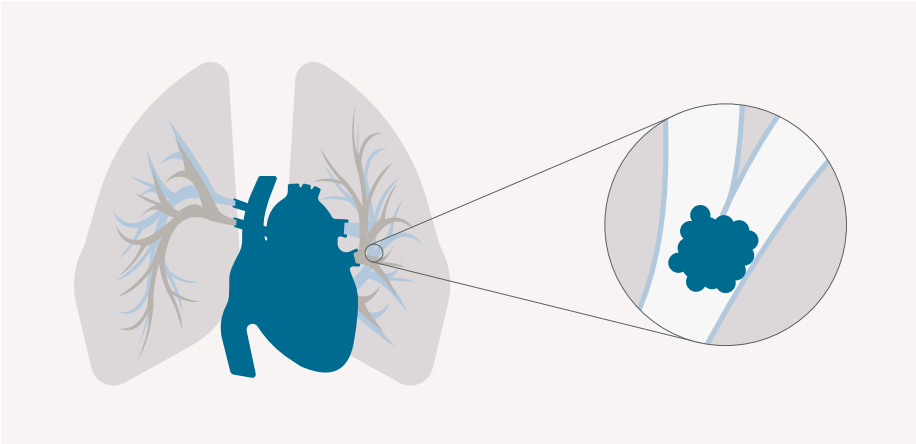
Blood clots in the legs can cause permanent damage to the valves of the veins and can lead to long term complications e.g. (Post Thrombotic Syndrome).

Patients undergoing surgery over 30 mins and/or those who are unable to walk for long periods of time are at most risk.

Signs and symptoms:

While symptoms of a VTE event may vary, common signs of a DVT include:

- leg swelling and/or pain
- discolouration and/or heat



A venous clot from the leg causing pulmonary embolism

VTE is the umbrella term for DVT and PE

A blood clot in the leg (DVT) can travel to the lungs which is known as a Pulmonary Embolism (PE). This may occur suddenly and you may experience symptoms such as:

- shortness of breath
- rapid heartbeat
- blue lips or fingers
- chest pain
- coughing up blood

If you experience any of these symptoms, or have concerns that you may have developed a clot, please notify your doctor or nurse immediately.

Who is at most risk?

All patients are at some risk of developing a DVT, however those who are at most risk are patients who:

- are immobile
- have had recent major surgery lasting more than 30 minutes or suffer from significant injury
- are overweight
- are over the age of 60
- have had a previous DVT or have a close family member who has had a DVT or PE
- take the contraceptive pill or hormone replacement therapy
- are pregnant or have recently given birth

Prevention measures

While not all patients will develop a DVT, all patients can take some simple measures to reduce the risk.

The risk of developing a DVT is significantly reduced by preventative measures outlined within this information booklet.

Your doctor and nursing team know the risks that can contribute to the formation of clots and they will assess your risk accordingly.

If necessary, they may prescribe medication or mechanical methods that help reduce the risk of a DVT. These will now be further explained.

Physiotherapist mobilising a patient in bed

How can I prevent blood clot formation?

Keep your fluids up

Severe dehydration "thickens" the blood and promotes clot formation. By drinking water and remaining adequately hydrated, you can help reduce the risk of developing a VTE event.

Please check with your doctor or nursing staff what is a safe level to drink per day. If you are unable to drink, your doctor or nurse may provide fluids through a drip to keep you adequately hydrated.

Keep moving

The most effective way of preventing a blood clot forming is by keeping active. After your procedure, if able, you will be advised to get up and mobilise. If you are unable to walk, there are other actions you can take.

Exercises can be done while you are in bed or sitting in a chair and will help keep the blood moving in your legs. Your nurse or physiotherapist will advise you of exercises according to your procedure and what you are allowed to do.

The Flowtron® Active Compression System in use on a patient to reduce the risk of VTE

What can your healthcare team do?

Medication

Drugs may be given which thin your blood and prevent it from becoming too sticky to form a clot. These drugs are called anticoagulants.

Anticoagulation therapy begins when you come into hospital or just after your surgery depending on your risk, and may continue after your hospital stay.

Anticoagulation medications can be given as an injection through a small needle under the skin or as a tablet. The type of medication given will depend on your risk factors and your medical history.

If you have any concerns regarding your medication, please speak with your doctor, nurse or pharmacist.

Flowtron® Active Compression System

Mechanical methods

Intermittent pneumatic compression

Intermittent Pneumatic Compression (IPC) can be used to help reduce the risk of you developing a DVT. This consists of a pump which connects to garments that are fitted around each of your legs or feet.

As the garment inflates, it moves blood from the legs back to the heart by mimicking the natural effect of walking.

The garments are made of a comfortable, breathable fabric and should fit snugly around your legs or feet. You will feel a gentle squeeze on one limb for a short period of time, and then there will be a rest period before the other limb is squeezed.

This therapy can be used on one leg if there is a reason why both legs cannot be compressed.

Anti-embolic stockings

Special stockings known as anti-embolic stockings can also be used to prevent DVT by providing a firm pressure to help the blood flow in your legs.

They can be fitted below or above the knee and are applied just before your procedure or immediately after. For stockings to be effective they must fit properly, so your nurse will measure your legs before and during your admission to ensure they do not stop or slow down the flow of blood.

Additionally they should:
- be snug, but not tight
- feel comfortable
- not be rolled down or folded

When wearing, fitting and washing the stockings you should follow the instructions given by the nurse and doctor, and the written information provided by the manufacturer.

What to do when you go home?

You may still be a risk of developing a clot up to three months after leaving the hospital[4]. To reduce your risk you may be required to continue your clot prevention therapy at home. Before discharge it is important you speak with your medical team on instructions to reduce your risk of developing a clot.

If you experience any of the below symptoms after returning home, contact your doctor or go to the nearest emergency department immediately.

Symptoms to look out for include:
- redness, pain, warmth or swelling in your leg
- shortness of breath
- rapid heartbeat
- blue lips or fingers
- chest pain
- coughing up blood

This information brochure is based on *Guideline for the Prevention of Venous Thromboembolism (VTE) in Adult Hospitalised Patients,* published by Queensland Health, and *Preventing Blood Clots: Information for Patients and Carers,* 2014, published by the Clinical Excellence Commission

References:

1. Jha AK, Larizgoitia I, Audera-Lopez C et al. The global burden of unsafe medical care: analytic modelling of observational studies. BMJ Qual Saf. 2013; 22:809-15.
2. Heit JA, Silverstein MD, Mohr DN, Petterson TM, O'Fallon WM, Melton LJ 3rd. Risk factors for deep vein thrombosis and pulmonary embolism: a population-based casecontrol study. Arch Intern Med. 2000:160(6):809–15.
3. Cohen AT, Tapson VF, Bergmann JF et al (2008). Venous thromboembolism risk and prophylaxis in the acute hospital care setting (ENDORSE study): a multinational crosssectional study. Lancet: 371: 387-394.
4. Venous Thrombosis Risk during and after Medical and Surgical Hospitalizations: The Medical Inpatient Thrombosis and Hemostasis (MITH) Study. J Thromb Haemost. 2022 Apr 15. doi: 10.1111/jth.15729. Online ahead of print.

At Arjo, we believe that empowering movement within healthcare environments is essential to quality care. Our products and solutions are designed to promote a safe and dignified experience through patient handling, medical beds, personal hygiene, disinfection, diagnostics, and the prevention of pressure injuries and venous thromboembolism. With over 6500 people worldwide and 60 years caring for patients and healthcare professionals, we are committed to driving healthier outcomes for people facing mobility challenges.

Arjo AB · Hans Michelsensgatan 10 · 211 20 Malmö · Sweden · +46 10 335 4500

www.arjo.com/vte

Arjo.A00469.2.0.INT.EN