

Fast facts:

- In Australia 15,000 people will develop a DVT per year, with over a third dying as a consequence⁽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 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).

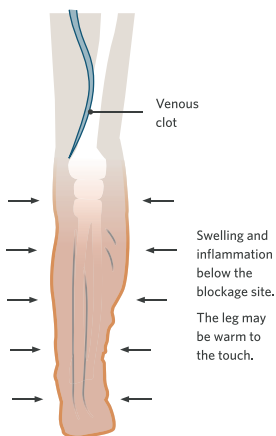
Blood clots in the legs can cause permanent damage to the valves of the veins and can lead to long term complications (Post Thrombotic Syndrome).

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



Leg with DVT



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

- shortness of breath
- chest pain
- coughing
- blue lips or fingers

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 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 of DVT.

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 **medications** or **mechanical methods** that help reduce the risk of a DVT which will be now further explained.

How can I prevent a clot?

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 a safe level for you 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 operation, 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 operation and what you are allowed to do.



What can your healthcare team do?

Medications

Drugs may be given which thin your blood and prevent it 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, these may continue after your hospital stay.

Abbreviations

VTE - venous thromboembolism

DVT - deep vein thrombosis

PE - pulmonary embolism

IPC - intermittent pneumatic compression

AES - anti embolic stockings



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 medications, please speak with your doctor, nurse or pharmacist.

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 can't be compressed.



Anti-embolic stockings

Special stockings known as Anti-embolic stockings can also be used to prevent DVTs which provide a firm pressure to help the blood flow in your legs.

They can be below or above the knee and are put on just before your operation 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 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.



This information brochure is based on the Guideline for the Prevention of Venous Thromboembolism (VTE) in Adult Hospitalised Patients published by Queensland Health which can be retrieved from https://www.health.qld.gov.au/_data/assets/pdf_file/0031/812938/vte-prevention-guideline.pdf and the Preventing Blood Clots: Information for Patients and Carers, 2014, published by the Clinical Excellence Commission which can be retrieved from: <http://www.cec.health.nsw.gov.au/patient-safety-programs/adult-patient-safety/vte-prevention/engaging-patients>

References:

- 1). Access Economics. The burden of venous thromboembolism in Australia. (2008). Report by Access Economics Pty Limited for the Australian and New Zealand Working Party on the management and prevention of venous thromboembolism
- 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 case-control 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 cross-sectional study. Lancet: 371: 387-394.

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How to prevent a clot during your hospital stay

