

Deep Vein Thrombosis (DVT)



What is DVT?

Veins transport blood towards the heart. A Deep Vein Thrombosis (DVT) is a blood clot that forms in a vein. These blood clots disrupt the flow of blood to the heart.

A DVT will usually form in the leg or pelvis. Sometimes a clot can form in the veins of your arm or other places. Symptoms in the involved place or limb include:

- Swelling.
- Pain.
- Warmth.
- Redness.

A DVT is different to heart attacks and strokes. In heart attacks and strokes, blood clots form in arteries. Arteries transport blood away from the heart.

Is a DVT dangerous?

A DVT is not dangerous if it is found and treated promptly.

If a DVT blood clot becomes loose, they can travel to the lungs. When this happens, it is called a pulmonary embolism (PE). A PE can cause lung damage and sometimes death.

Why did I get a DVT?

A DVT can happen to anyone at any age.

For many patients, a risk factor or reason for the DVT is never found, and the clot is called unprovoked or unprecipitated.

For patients with one or more risk factors causing a DVT, the clot is called provoked or precipitated.

There are many risk factors for DVT. Some can be controlled, others cannot be controlled, such as your age and family history.

Proximal

Common iliac vein
External iliac vein
Internal iliac vein

Femoral vein

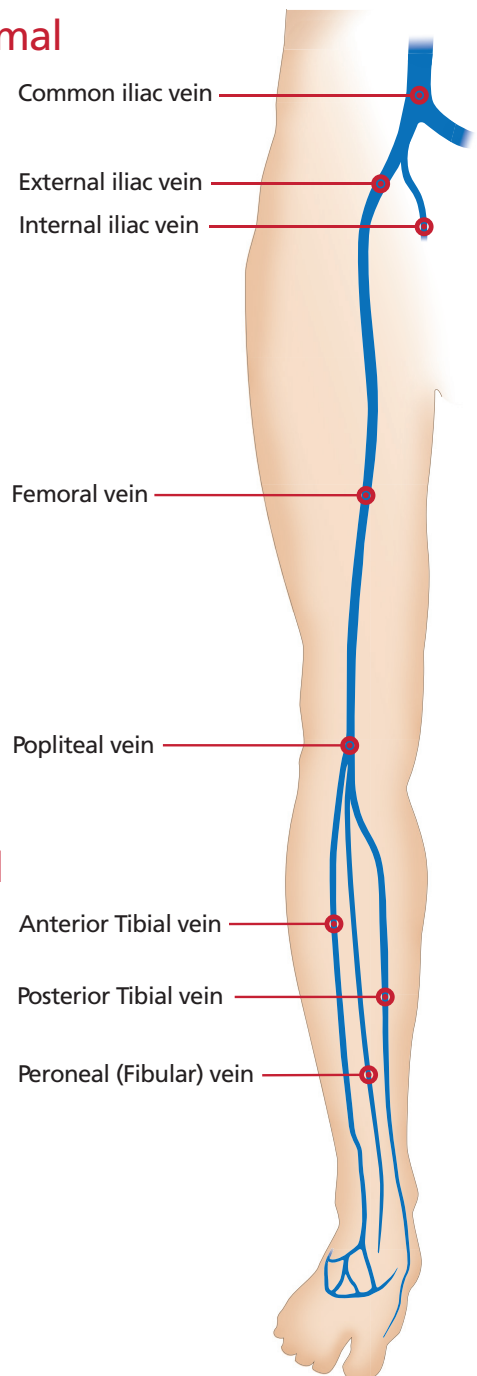
Popliteal vein

Distal

Anterior Tibial vein

Posterior Tibial vein

Peroneal (Fibular) vein



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DVT risk factors include:

- Reduced mobility due to:
 - Surgery, especially hip and knee surgery.
 - Significant leg injuries, especially if you require a boot or plaster.
 - Long distance journeys.
- Hospital stays.
- Oestrogen-containing medications including oral contraceptives and hormone replacement therapy.
- Pregnancy or if you have recently given birth.
- Some medical conditions like:
 - Cancer.
 - A kidney disorder called nephrotic syndrome.
 - Some immune problems, such as antiphospholipid syndrome.
- Some blood disorders, such as polycythemia vera or essential thrombocythemia.
- Previous DVT or Pulmonary Embolism (PE).
- Smoking.
- Obesity.
- Increased age – progressively increasing risk after age 50.
- An inherited tendency to clot, called inherited thrombophilia.
- Family history of venous blood clots, even if an inherited thrombophilia cannot be identified.

How is a DVT treated?

DVTs are treated with medications and sometimes with graduated compression stockings.

The medications are called anticoagulants. They are also commonly referred to as “blood thinners” or “anti-clotting medications”.

There are several types of anticoagulant medication including:

- Infusions (heparin)
- Injections (enoxaparin/Clexane®, fondaparinux/Arixtra®)
- Tablets (warfarin/Coumadin® or Marevan®, apixaban/Eliquis®, dabigatran/Pradaxa®, rivaroxaban/Xarelto®).

Anticoagulant medication helps the body dissolve blood clots and prevent new blood clots from forming. They prevent blood clots from travelling to the lungs.

The duration of your treatment depends on the circumstances of your DVT and whether or not you also have a PE.

Graduated compression stockings may reduce leg pain and swelling. The stockings must be “firm” grade stockings and must be properly fitted to be effective.

Are there any long term effects of a DVT?

If you have had a DVT, your risk of getting another DVT in the future is increased.¹ The recurrence rate is different for everyone. It depends on the:

- Triggers you had.
- Your risk factors.
- Your age.
- Your gender.

If your recurrence rate is very high, you may be advised to continue anticoagulant medication long term.

Some people may develop post-thrombotic syndrome in the affected limb. It is caused by damaged valves in the vein and increased blood pressure in the vein from the blood clot. Symptoms of post-thrombotic syndrome include:

- Pain.
- Dilated veins.
- Swelling.
- Skin changes and discolouration.
- Leg ulcers.

These changes can develop up to 5 years after the DVT.²

¹ Heit J.A., et al. Predictors of recurrence after deep vein thrombosis and pulmonary embolism: a population-based cohort study. *Arc of Intern Med.* 2000, 160(6): pp. 761-768.

² Prandoni P., et al. The long-term clinical course of acute deep venous thrombosis. *Ann Intern Med.* 1996, 125(1): pp. 1-7.



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What do I need to do in the future, now that I have had a DVT?

Some people will need to stay on anticoagulant medication long term. If your doctor said it is safe for you to stop the medication, and you are not taking it; there are several things you should remember.

You should have preventative anticoagulant medication during periods of high risk for a new DVT. For example:

- After surgery.
- If you are immobile for any reason.
- Flights over 4 hours.

The preventative medication may be low dose Clexane injections or an anticoagulant tablet.

If your DVT was triggered by oestrogen containing medication, you should avoid these medications for life.

If your DVT was pregnancy related, you may require preventative anticoagulant medication for future pregnancies. This will be low dose Clexane during pregnancy, after birth, or both.

Whether you are taking anticoagulant medication or not: See your doctor immediately if you have symptoms of a DVT or Pulmonary Embolism.

PE Symptoms include:

- Shortness of breath.
- Chest pain.
- Rapid heart beat.

DVT Symptoms include:

- Swelling.
- Pain.
- Warmth.
- Redness.

Stop smoking to reduce your risk.

If obesity was one reason for your DVT, losing weight can also reduce your risk.

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