BMJ Best Practice

Patient information from BMJ

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Deep vein thrombosis

If you have deep vein thrombosis (DVT) it means a blood clot has formed in one of your veins. DVT can be dangerous if parts of the clot break off and travel to your lungs. But there are treatments that can help prevent this. If you have had DVT, there are also things you can do yourself to reduce your chance of it happening again.

What is deep vein thrombosis (DVT)?

DVT is when a blood clot forms in one of your veins. Veins are the blood vessels that carry blood back to your heart from the parts of your body. DVT happens most often in the veins in your legs. Sometimes doctors describe a DVT by where it is in your body. For example, in your leg, it may be called:

- proximal DVT if the clot is above your knee (e.g., in your thigh), or
- distal DVT if the clot is below your knee (e.g., in your calf).

It is rare, but DVT can also happen in other parts of your body, for example your arms or pelvis.

What are the symptoms?

DVT can cause symptoms in the part of your body where the clot is. The main symptoms are:

- swelling in one leg, usually the calf or thigh
- pain in the affected leg
- the painful area feeling hot
- skin changes in the affected area, for example turning red or purple
- swollen, more visible veins on one side.

Some people DVT don't notice any symptoms.

If part of the blood clot breaks off it can travel through your blood vessels and get stuck in your lungs. This is called a **pulmonary embolism** and it can be very dangerous.

Symptoms of a pulmonary embolism include:

- breathlessness
- chest pain
- coughing up blood, and
- a racing heartbeat

It's also possible to have a pulmonary embolism without any of these symptoms, but this doesn't mean that it's not dangerous. Pulmonary embolism is more likely with a DVT above the knee (proximal DVT).

It’s very important to see your doctor if you think you might have a blood clot. You may need tests, such as an ultrasound to check your blood flow. DVT may be caused by another medical condition, so your doctor may suggest tests to find out what caused your DVT.

What are the treatment options for DVT?

Medications

The main treatments for DVT are medications called **anticoagulants**. These medications:

- help stop your blood cells sticking together to form blood clots
- reduce the chance of pulmonary embolism, and
- reduce the chance of DVT coming back.

There are many different anticoagulants. The type you will be given depends on your medical history and what might suit you best.

Some anticoagulants need to be given in the hospital, either as shots or as an intravenous (IV) drip. Or you might have your first treatment in the hospital and then be taught how to give yourself shots at home. After that, you will probably be given anticoagulants to take as pills. You are likely to need to take these for at least 3 months.

If there was no obvious cause for your DVT, you will be advised to keep taking anticoagulants to prevent it happening again. You might be given the same anticoagulants as your initial treatment, or a different type.

Because anticoagulants hmake it harder for your blood to clot, they can sometimes cause **unwanted bleeding**. For example, you might:

- bruise more easily
- have a nosebleed, or
- notice blood in your urine or stools.

If you have unusual bleeding you should tell your doctor right away. Your doctor may stop your treatment or give you other medications to stop the bleeding.

Some anticoagulants are not safe to take if you're pregnant or breastfeeding. Your doctor will advise you on which medication to take in this case.

Elastic compression stockings

Compression stockings are knee-high socks made of thick elastic that gently boost your circulation. They need to be specially fitted to suit the size of your legs. For some people, they can help the symptoms of DVT in your legs. They are also used in some situations to help prevent another DVT from happening, for example if you are at risk of DVT and you have to go into the hospital for surgery.

Exercise

Doctors recommend walking as a good type of exercise for people with DVT. Walking can help reduce DVT symptoms and a condition called **post-thrombotic syndrome** that can occur after DVT. This is where problems with blood flow in the area causes damage to the skin or deeper tissue.

Deep vein thrombosis and travel

Some research has found that long-distance travel, especially air travel, increases your chance of DVT. If you are planning to travel, talk with your doctor. They will probably recommend you delay any long journeys for at least 2 weeks after receiving treatment for DVT. You might need to take medications or wear compression stockings when you travel.

There is more on DVT and travel in our patient information: *Deep vein thrombosis and long-distance travel*.

What happens next

What happens next depends partly on whether there were any obvious causes for you getting a DVT. If there were underlying causes, doctors will try to treat these. If there were no obvious causes you may need to continue treatment with anticoagulants indefinitely.

To try and reduce the chances of getting another DVT, you can:

- stop smoking, if you smoke
- Aaoid drinking lots of alcohol
- try to keep to a healthy weight
- stay active.

If you have had treatment for DVT and your pain hasn’t gone away or you notice skin changes, see your doctor right away. You may have post-thrombotic syndrome.

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