

# Venous Thrombo-Embolic (VTE)

## Preventing blood clots when you are in hospital

**For surgical and general medical patients - there are separate information leaflets for maternity and for stroke patients**

### Introduction

This leaflet gives you information about Venous Thrombo-Embolic (VTE) and how to reduce your risk of developing it during your hospital stay. VTE is a collective term for Deep Vein Thrombosis (DVT) and Pulmonary Embolus (PE) which are both conditions involving blood clots.

### What is Deep Vein Thrombosis (DVT)?

DVT is a common medical condition that happens when a thrombus (blood clot) forms in a deep vein, usually in the leg or pelvis, leading to either partially or completely blocked circulation. It is estimated that about 1 in every 1,000 people have a DVT each year in the UK. Symptoms include swelling of the calf or thigh, usually with some pain, and possibly redness of the calf.

A DVT in itself is not a serious condition, however it can cause a serious problem known as pulmonary embolus (PE). Some people can suffer long-term discomfort and ankle swelling following a DVT – this is called post-thrombotic syndrome.

### What is Pulmonary Embolus (PE)?

If the clot in the leg breaks off and travels to the lungs, it will cause pulmonary embolus (PE). PE may result in breathing difficulties and could even be fatal. Signs of a PE are:

- shortness of breath
- chest pain which is worse when breathing in

Reference No.

**GHPI1040\_03\_23**

Department

**Pharmacy**

Review due

**March 2026**

## Patient Information

- unexplained difficulty in breathing
- coughing up blood

If you experience any of these symptoms, you should seek immediate medical help from your GP, NHS 111 or the nearest Emergency Department.

## Why does a blood clot form?

There are two factors that may trigger a clot to form:

**Changes or damage to the blood vessels** - if there is pressure on a vein a clot can form. This may be due to being immobile, surgery or long-distance travelling.

**Problems with the blood** - this may be inherited (you are born with this condition), caused by some medications or conditions such as, severe infection or cancer.

## Who is most at risk?

The most common cause is immobility. There are several factors which increase your chance of developing VTE. These include:

- having had a previous DVT or PE
- any operation lasting more than 90 minutes, particularly after orthopaedic operations such as a joint replacement or after a broken hip
- aged over 60 years
- family history of DVT or PE
- cancer
- dehydration
- obesity (over weight)
- faulty blood clotting – called ‘thrombophilia’
- severe acute medical illness such as pneumonia
- paralysis or immobility of the legs including staying in bed for a long period of time (although the risk may reduce after several months)
- oestrogen containing contraceptive pills or hormone replacement therapy

## Patient Information

Many people think that going on a long-haul flight is the biggest risk factor for VTE, but the risk of getting a blood clot in hospital is far higher. As many as 55 to 60 in every 100 cases of VTE occur during or following hospitalisation.

### How is VTE prevented in hospital?

Not all VTE can be prevented, but the risk of developing a clot can be greatly reduced.

Either in the pre-admission clinic or when you are admitted to hospital, your risk will be assessed. Your risk of any adverse effect from treatment will also be considered.

You may be given one of these treatments:

#### Medication

Medicines used to prevent blood clots are called anticoagulants. These can be given by injection into the skin or sometimes as a tablet. In some situations, aspirin is enough. Your doctor will advise which is best for you, based on research evidence.

In some situations, the medication may be continued for a while after you have left the hospital. If you need to continue with daily injections at home a nurse will show you how to give them correctly.

Anticoagulants reduce your risk of developing a clot, but increase your risk of bleeding. This may lead to bruising or more serious internal bleeding. Because of this, we assess whether bleeding might be a problem. If your risk of bleeding is thought to be similar or exceeds your risk of a blood clot, you will not be given an anticoagulant.

#### Antiembolism stockings

You may be measured and fitted with anti-embolism stockings (AES) which are usually knee-length. The stockings work by reducing damage to the veins in your legs. The stockings should be worn day and night until you are back to your usual mobility. AES are effective in reducing the risk of DVT, particularly in surgical patients, but of less value for medical patients. It is important that you are shown how to put the stockings on correctly, before you go home.

**Patient  
Information**

## What can I do to help myself?

There are some simple but important things that you can do to help reduce your risk of VTE:

- make sure that you get up and about as soon as possible, especially after surgery
- exercise your legs while in bed – bend your foot and ankle up and down at regularly intervals
- keep to a healthy diet
- maintain a healthy weight
- try to lose weight if you are obese
- make sure you drink plenty - water is particularly good for you
- stop smoking

If you would like information and support to stop smoking, please contact:

### Healthy Lifestyles Gloucestershire

Website: [www.hlsglos.org](http://www.hlsglos.org)

Tel: 0800 122 3788

## What can I do once I go home?

Once you get home, it is important to:

- continue to be as mobile as possible
- continue to drink plenty of water

If you are asked to continue medication when you go home, you will be given further information.

## What to look out for?

VTE can happen at any time during a stay in hospital or in the weeks after leaving hospital. Look out for any DVT symptoms such as swelling, pain or tenderness in your calf and any PE symptoms such as chest pain, breathlessness or coughing up little bits of blood.

If you experience any VTE symptoms or bleeding once you are at home, you should seek urgent medical advice from your GP or NHS 111.

**Patient  
Information**

## **Further information**

### **Blood clots**

[www.nhs.uk/conditions/blood-clots/](http://www.nhs.uk/conditions/blood-clots/)

### **DVT (deep vein thrombosis)**

[www.nhs.uk/conditions/deep-vein-thrombosis-dvt/](http://www.nhs.uk/conditions/deep-vein-thrombosis-dvt/)

### **Pulmonary embolism**

[www.nhs.uk/conditions/pulmonary-embolism/](http://www.nhs.uk/conditions/pulmonary-embolism/)

### **Thrombosis UK**

<https://thrombosisuk.org/>

## **VTE prevention app**

You may find this app a helpful guide for reducing your risk of DVT and PE. It can be used before, during and after your stay in hospital. For more information visit:

[www.vte-prevention.co.uk/](http://www.vte-prevention.co.uk/)

Content reviewed: March 2023