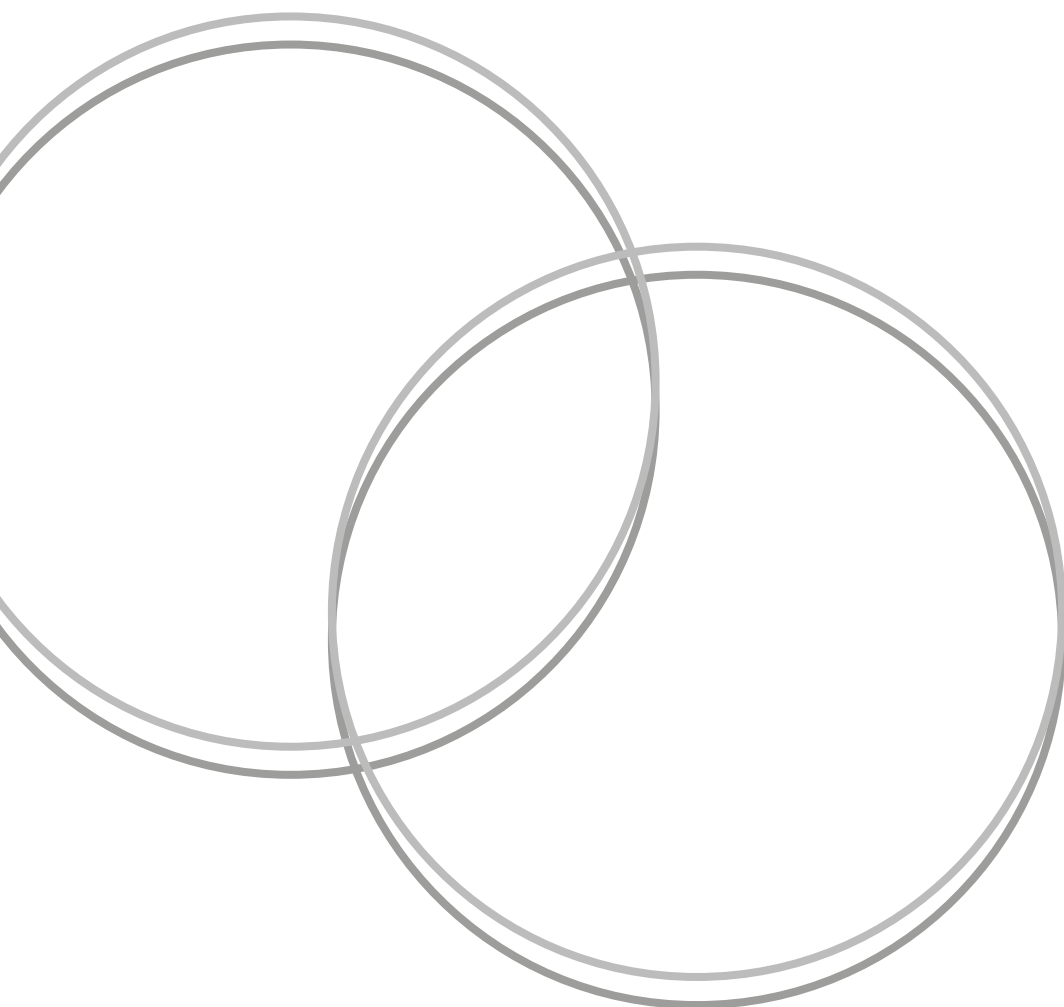


Pulmonary embolism (PE)

Information for Patients



Pulmonary embolism (PE) is the abnormal presence of one of more blood clots in the blood vessels of the lungs, which can affect flow of blood through the lungs.

Typical symptoms of PE include:

- sharp chest pain
- shortness of breath, cough (which may be dry, or may produce blood)
- collapse

Sometimes PE can cause no symptoms and be found incidentally during tests for other problems.

Causes of PE

Most PEs originate from deep vein thromboses (DVTs), which are blood clots that form in the large blood vessels of the legs.

If a piece of clot breaks off, it can travel through the veins to the heart, and from the heart to the lungs, where it becomes lodged in a blood vessel and blocks blood flow through that part of the lung.

PEs and DVTs may occur following a period of immobility or illness, or following immobilisation of a leg in a cast, or after major surgery.

They are more likely to occur in pregnant women, people with cancer and some long-term illnesses, and people taking medications such as the oral contraceptive pill and hormone replacement therapy (HRT).

Often the cause of PE is not identified.

Diagnosis

If a doctor suspects you have a PE on the basis of symptoms and risk factors, they will arrange tests to confirm this diagnosis or rule it out.

If your risk of having PE is low, sometimes PE can be ruled out simply by using a blood test called a D dimer – if the D dimer blood test is negative, then PE is very unlikely to be the cause of your symptoms.

It is worth noting that D dimer can be positive for reasons other than PE, such as inflammation or infection, so a positive D dimer does **not** mean you definitely have a PE – rather, that PE cannot be ruled out, and further tests are needed.

If you are thought to be at high risk of having a PE, or the D dimer blood test is positive, then we may offer you a scan of your lungs to give a definitive diagnosis. If you are not unwell, this scan may not need to be performed immediately. We may start you on treatment for PE, and then discharge you home to return for a scan – generally the following day. If the scan does not show a PE, then this treatment can be stopped.

Treatment

If you are unwell with PE, you will be admitted to hospital. However, the majority of patients with PE can be safely discharged and treated as an outpatient.

Patients with PEs are usually prescribed anticoagulants (medications which reduce the stickiness of the blood) to help to prevent clots expanding in size or new clots forming. Over time existing clots will be broken down naturally by the body.

The most commonly used anticoagulant drug is the tablet **apixaban**, but the tablet **warfarin** or injections of **enoxaparin** (**heparin**) may be more appropriate for you.

Anticoagulants are safe and effective, but as a side effect can increase the risk of minor or serious bleeding, particularly after injuries.

If you are taking anticoagulants you should **avoid** anti-inflammatory medications like ibuprofen, naproxen and diclofenac, and advise your doctor or pharmacist before taking any new medications.

If this is your first PE, you may only need to take anticoagulant medication for three months.

If, however, you have recurrent PEs, or are deemed to be at high risk of further PEs, anticoagulants may be required for a longer period.

Follow-up

All patients with PE will require some follow-up, but the timing and nature of follow-up will vary according to your individual circumstances.

We may ask you to return for urgent review in hospital if you:

- require additional urgent investigations; or
- cannot take the medication apixaban.

Apixaban is the most commonly used medication to treat PE, so if you cannot take this medication we will need to discuss the use of another medication such as warfarin or heparin.

If you become pregnant or are breastfeeding, please advise your doctor, as some anticoagulants may not be suitable.

You will need to make a follow-up appointment with your GP to arrange continued anticoagulant medication prescriptions.

Some patients diagnosed with PE will be seen by a specialist in the thrombosis and anticoagulant clinic to discuss the need for long-term treatment. Whether this is required will depend on a number of factors. If it is required, we will let you know, and you will be contacted later with an appointment date. Information about what to expect at this clinic can be found at

<https://www.ouh.nhs.uk/haematology/services/haemophilia/vte-follow-up-clinic/>

What to Expect After Your Diagnosis of PE

After a diagnosis of PE, it is common to continue to experience symptoms such as cough, breathlessness, fatigue and chest pain. These symptoms typically persist for several weeks, and improve as the clot breaks down, but can last longer.

Pain can usually be managed with painkillers such as paracetamol and codeine – speak to your doctor if these are not effective.

Long term complications of PE are uncommon, but may include excess strain on the heart – speak to your doctor if your symptoms have not improved by 3-6 months.

You may wish to download the free “Let’s Talk Clots” app for guidance and support for your recovery.



Apple Store



Google Play

Flying After a Diagnosis of PE

You should wait for four weeks after your diagnosis of PE before flying. When flying in future, it is advised you stay well hydrated and walk regularly during the flight.

Questions or concerns

If you have a diagnosis of PE, or **may** have a PE and are waiting for a scan to confirm this, and have **any of the following symptoms**, come to A&E immediately, calling 999 if necessary:

- increasing shortness of breath
- severe or worsening chest pain
- a collapse or loss of consciousness.

If you are taking anticoagulant medications and have any of the following symptoms, come to A&E immediately, calling 999 if necessary:

- a head injury
- heavy bleeding, for example from a nosebleed lasting over 15 minutes, or from an injury
- blood in your vomit or red or black 'tarry' stools.

If you have other queries please speak to your GP, or the Anticoagulant Clinic if you are under our care.

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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