Calderdale and Huddersfield
NHS Foundation Trust

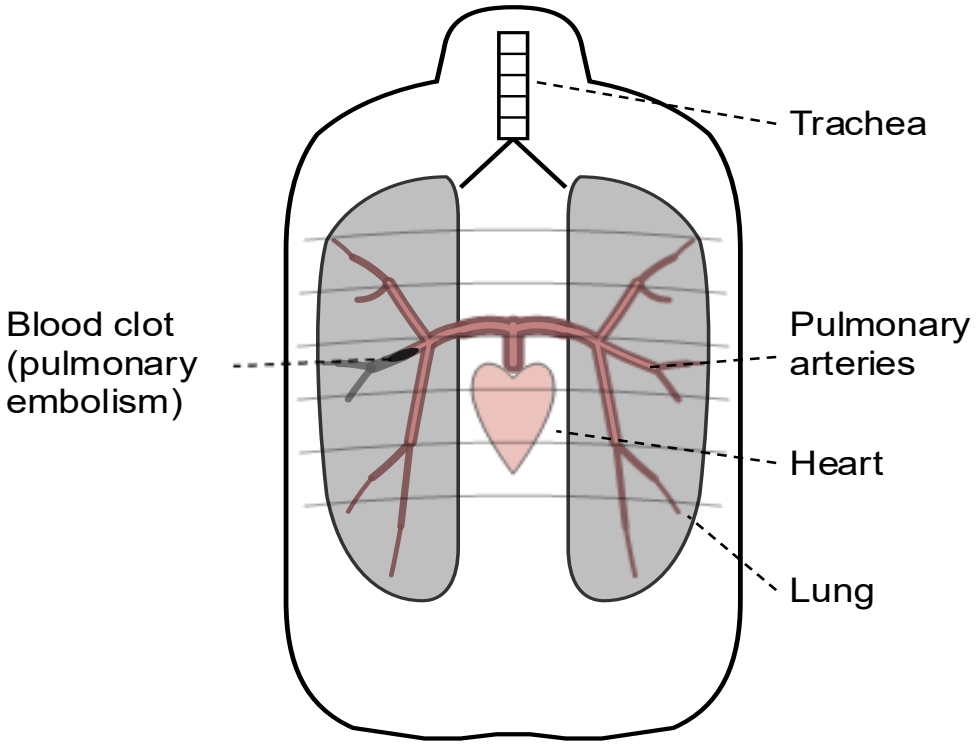
Patient Information Leaflet -Same Day Emergency Care (SDEC)

Pulmonary Embolism (PE)

Following your visit to the Same Day Emergency Centre, you have been diagnosed with a **pulmonary embolism/PE** (blood clot in the lung).

What is a PE?

A pulmonary embolism (PE) is a blood clot that has travelled to the lungs and is blocking one of the blood vessels there. It most often starts as a clot in a deep vein of the leg (a DVT), which then breaks off and travels up through the heart and into the lungs. A PE can make it harder for your lungs to get oxygen into your blood, which can cause breathlessness and chest pain.



Pulmonary embolism

What causes a PE?

Most PEs start as a blood clot in a deep vein, usually in the leg. Blood flow in the leg veins is helped along by leg movements, because muscle action squeezes the veins. Sometimes a clot forms for no apparent reason. However, the following can increase your risk of developing a PE:

- Being immobile/not moving around (sitting or lying down for long periods) can slow down blood flow in the veins. Slow-flowing blood clots more easily than normal-flowing blood. Examples include:
  - Recent surgery - whilst you are asleep (due to general anaesthesia) your legs would be still.
  - Any illness or injury that reduces your ability to move, such as a fractured bone of the leg.
  - Long plane journeys.
  - Damage to the inside lining of a vein. This could be due to a previous DVT, use of injected drugs or anything else that may have damaged the veins.
- Medical conditions that cause blood to clot more easily (for example antiphospholipid syndrome, thrombophilia).
  - Contraceptives and hormone replacement therapy containing oestrogen.
- Other causes include having cancer, being over 60 years of age, being pregnant, being obese or overweight and being dehydrated.

What are the treatment options for a PE?

- Anticoagulation - stopping the clot from getting bigger and preventing new clots from forming.

Anticoagulants are medicines that are often called "blood thinners". However, they do not actually thin the blood or break down existing clots. Their function is to stop new clots forming while the body's natural healing process breaks down the PE. Usually, we give these medications for 3 or 6 months. Options include:

- Apixaban, rivaroxaban, edoxaban and dabigatran - these are newer anticoagulants that do not require monitoring tests. However, it is difficult to quickly reverse the effects in the event you experience bleeding.
- Warfarin - this medication must be adjusted carefully until we achieve the target level of anticoagulation, initially requiring regular monitoring tests and then long-term monitoring once the ideal dose is found. If needed, we can easily reverse the effect using medications.
- Oxygen therapy - if your oxygen levels are low, you may be given extra oxygen through a mask or nasal tubes until your levels return to normal.
- Regular walking - once it is safe to do so, walking is thought to improve blood flow and may help to reduce your risk of further clots. Your medical team will advise you on when and how much to move.

Sometimes other options may be considered, including:

- Clot-busting (thrombolytic) therapy with medicines such as alteplase. These may help to dissolve a blood clot and are used in severe cases where the PE is causing significant strain on the heart.
- Embolectomy - an operation or catheter procedure to remove the blood clot from the lung vessel. These are not routine and are only considered in specific circumstances.

What are the complications to be aware of regarding a PE?

Recurrence - Without treatment, the risk of having another clot is significant. Even with treatment, a small number of people will experience a recurrent clot. Taking your medication as prescribed is the best way to reduce this risk.

Chronic thromboembolic pulmonary hypertension - In a small number of people, clots do not fully dissolve and can cause long-term high blood pressure in the lungs. This can lead to breathlessness on exertion and tiredness. Follow-up appointments help to detect this early.

Bleeding from anticoagulation - As anticoagulants prevent blood clotting, they can increase the risk of bleeding. Tell your medical team if you notice any unusual bleeding, bruising, blood in your urine or stool, or prolonged nosebleeds.

What should I do if I have any concerns regarding my diagnosis or any complications?

Please seek immediate medical attention by attending A&E or calling 999 if you experience:

- Sudden worsening of shortness of breath
- Severe chest pain
- Dizziness, fainting or collapse
- Coughing up blood
- Heavy or uncontrolled bleeding.

Please contact our SDEC department if you:

- are unsure what medication you need to take
- are unsure about what follow-up appointments you may need
- are confused about your diagnosis.

Please contact your GP if you:

- have any other symptoms that are concerning or seem unusual
- have any issues with your prescription.

Contact information

If you have concerns after leaving SDEC, please contact:

SDEC / Hospital Advice Line: _____

GP: _____

Out of hours: NHS 111

In an emergency, call 999.