

CT scans to find a Blood Clot in the Lungs

When you need one, and when you don't

What is a pulmonary embolism (PE)?

A pulmonary embolism (PE) is a blood clot in the lungs that traveled from the deep veins of the arms, leg or pelvis and causes a blockage in blood flow. A PE can be life threatening if not diagnosed and treated. Luckily, doctors have many good methods available to test for PE.

CT scans are not risk-free

A commonly used test to diagnose PE is a CT pulmonary angiogram (CTPA). However, a CTPA is not risk-free. A CT scan is an x-ray machine that exposes you to large doses of radiation, which can increase your risk of cancer over your lifetime. CT scans looking for blood clots also use dye that can damage the kidneys or cause an allergic reaction.

For these reasons, if your risk of having a PE is low then the potential risks of a CTPA can outweigh the benefits. Your doctor will use a CT scan only when necessary.

How do doctors know when a CT scan is necessary?

Doctors use guidelines based on research in patients just like yourself to decide what a patient's risk is for a PE, and which patients need further testing. If your doctor thinks you might have a PE, the following testing is recommended:

- For very low risk patients, a list of questions called the Pulmonary Embolism Rule-out Criteria (PERC) can safely rule out a PE without additional testing.
- For low and medium risk patients, a blood test called the D-dimer can safely rule out a PE if the test is normal.
- For high risk patients or for those with an abnormal D-dimer blood test, imaging tests such as a CT scan or VQ scan are recommended to rule out a blood clot.

What should I do now?

You can continue your usual activities without over-exerting yourself. You can use medications as instructed by your doctor. Monitor your symptoms for the next several days. If they are persisting or changing you should see your family doctor.

What if I get worse?

If your symptoms get worse, or you develop more shortness of breath, chest pain, fainting, cough up blood or feel very unwell, you should come back to the Emergency Department to be assessed again. You may require further testing if your symptoms are getting worse.