

Patient information

Having a Computed Tomography Pulmonary Angiogram CTPA Test in Pregnancy

Imaging Department

Your doctor has advised you to have a CTPA test for your chest. This leaflet provides some information. Please feel free to discuss any other questions you have with your ward doctor, the radiographer who will perform the scan or the radiologist who will supervise it.

What is a CTPA test and why is it done?

'CTPA' stands for 'Computed Tomography Pulmonary Angiogram'. It is a special CT scan to look for blood clots in the large blood vessels (pulmonary arteries) that supply blood to your lungs. The test can also diagnose other common conditions like pneumonia or collapsed lung, which may be causing your symptoms.

What is PE (pulmonary embolism) and why is it important to check for it?

Pulmonary Embolism (PE) is the name of the condition in which blood clots block the vessels in the lungs. This can be a serious problem and will need prompt treatment if diagnosed. However, the condition is very rare, with the chance of developing PE being between 1 / 500 and 1 / 1000 pregnancies. As you have certain signs and symptoms, which may mean that you have a PE, your doctors have asked for a 'CTPA' test for you.

What does 'CTPA' involve?

CTPA is very much like any other CT scan. It involves use of a low dose of radiation to make pictures of the blood vessels. You will go to the CT department where the radiographer will explain what will happen to you and ask you some questions before the scan starts. You can also ask them any questions you may have. Then you will be asked to lie on a couch.

The radiographer will inject X-ray dye through a cannula and then you will move into the CT scanner. You will be asked to lie still and hold your breath for a few seconds and the actual scan will be over in a minute.

Is the radiation (X-ray) used in the CTPA harmful to my baby or me?

The amount of X-rays reaching the baby is very low and does not involve any real risk for the baby. The natural background radiation that the baby receives during the pregnancy is actually several times more than the radiation dose that the baby will receive in this scan.

Research has shown that the chance of developing any harm to the baby is negligible with this X-ray dose. The risk of harm only really starts if the baby would receive 75 times the dose that you will receive in this CTPA.

There is a small amount of radiation going through your breast tissue. Some older research suggested that this may very slightly increase your chance of developing breast cancer. However, with modern techniques we can reduce the radiation dose to the breast and newer research has suggested that the risk of developing breast cancer is very low. Moreover, the risk of not finding a blood clot is much higher than any risks the test may bring. This is why your doctors have recommended this test for you.

Will the X-ray dye cause any problem?

The dye injection will spread a feeling of warmth in your body and you may feel like passing water but these feelings go away after a few minutes. A few patients feel sick or vomit after the injection, but this never lasts more than a few minutes.

Very rarely, some patients get an allergic reaction to the dye, like skin rash, itching and breathing difficulty. However, the CT department is prepared to help you with these problems if they happen.

The dye contains iodine, which may affect your baby's thyroid gland function. However, in the UK every newborn baby's thyroid function is tested and if there are any problems then treatment is available.

If you are planning to have your baby delivered in another country, you should ask your midwife or obstetrician to check your newborn baby's thyroid function.

Are there any alternative tests to the CTPA scan?

An X-ray of the chest is usually done for patients with chest problems and you should have already had one before needing the CTPA. Although this X-ray involves much less radiation than a CTPA, it is not good enough to diagnose a PE.

Another test called a V/Q scan is also used for the diagnosis of PE and it also involves radiation. The radiation dose to the breasts is even lower than a CTPA, but the dose to the baby is a little higher. This is a good test for PE too, but sometimes the result is not clear and a CTPA is still needed.

Even though CTPA is a very good test, it is not perfect and sometimes the results are unclear. If this is the case, we may sometimes have to repeat the scan, but will always first discuss the results with your doctor.

Feedback

Your feedback is important to us and helps us influence care in the future

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

If you have any further questions regarding this scan please contact the CT department on
Tel: 0151 706 2751.
Text phone number: 18001 0151 706 2751

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