

This leaflet will answer your questions about having a cardiac (heart) CT scan. It explains the benefits, risks and alternatives, as well as what you can expect when you come to hospital. If you have any further questions, please speak to a doctor or other member of staff in the x-ray department.

What is a cardiac CT scan?

CT stands for computerised tomography. A CT scan takes a series of pictures of your body using x-rays. A cardiac CT scan is a specialised scan to look at your heart. Just as taking a picture of a moving object with a camera results in a blurry picture, conventional CT scans of the heart are not helpful because the heart is continuously in motion.

A cardiac CT scan is also called **CT coronary angiography**. It uses a multi-slice CT scanner to get high quality, three dimensional pictures of the

- coronary arteries – the vessels that bring blood to the heart
- moving heart
- great vessels – the large vessels that bring blood to and from the heart.

The scan gives information on how well the heart and its muscles are working. The radiologist (a doctor who uses x-rays to diagnose and treat illnesses) will review and report on the images.

Do I need to do any special preparation before the CT scan?

You do not need to do anything.

If I am diabetic, taking tablets or medicine, should I stop them?

No. If you are taking prescription medication you should continue to take this as normal.

Is there anything I need to tell the staff before I have my scan?

Please tell us if you think you may be pregnant.

In all cases, tell us if you have asthma, any allergies, or if you have had a problem with an injection for an x-ray or scan in the past.

What will I wear?

Depending on the part of the body to be examined, we may ask you to remove some clothing and put on a hospital gown in a changing cubicle before the scan. We will let you know when you arrive.

If you can, wear loose fitting clothes with no metal fastenings like zips, poppers and hooks and eyes. This may save you having to change into a hospital gown.

You may wish to bring a dressing gown with you as we are unable to provide these.

What does the scan involve?

The scanner is like a large doughnut and unlike some other scanning machines the CT scanner is not enclosed. In our experience, patients do not feel claustrophobic while having a CT scan because their head is outside of the scanner.

All you have to do is lie still on the couch. The couch slowly moves backwards and forwards through a large circular opening to allow pictures to be taken of the heart.

What happens during the scan?

When you arrive in the x-ray department we will ask you to complete a short pre-scan checklist to confirm your medical history. We will also ask you to change into a hospital gown.

We will measure your blood pressure, heart rate and blood oxygen level (using a clip on your finger – this is not painful). We will insert a small needle (cannula) into a vein in your arm. We use this to give you medicines during the scan.

We will help position you on the bed and ask you to raise your arms above your head. We will place four electrodes (small, sticky dots) on your chest and attach these to an electrocardiograph (ECG) machine. This will record the electrical activity of your heart.

You will need to lie very still while each picture is taken. We will ask you to hold your breath for about 10 to 20 seconds at a time. This helps to prevent blurring of the images. We will go through this with you before your scan.

We will inject an x-ray contrast dye is injected through the cannula in your arm to highlight your heart arteries on the scan. This may give you a metallic taste in your mouth and a 'hot-flush'. Some people may feel as though they have 'wet the bed' (but they don't actually do it). All of these sensations are perfectly normal and pass within a couple of minutes.

How long will the scan take?

The scan will take about 20 minutes. This is mostly preparation time. The actual scanning time is only 30 seconds. However you should plan to be in the department for 1 to 1 ½ hours. Although we make every effort to meet our appointment times, delays may occur due to emergency patients. We will let you know if this is the case.

Why should I have a cardiac CT scan?

A cardiac CT scan can help your cardiologist find the cause of your heart problem and the best treatment options for you. It can be helpful for patients at high risk of developing coronary disease, such as smokers, those with genetic risk, high cholesterol levels, high blood pressure or diabetes and who have unclear results with other testing.

A cardiac CT scan is also very helpful for checking the grafts in people who have had heart bypass surgery.

Are there any alternatives?

An alternative is traditional cardiac angiography. This is a procedure where catheters (small tubes) are placed into the artery in your groin and up into the arteries in your heart. This is an invasive procedure which needs local anaesthetic.

Another option is a cardiac MRI scan.

Your doctor feels that a CT scan is the best option for you. Please speak to your doctor for more information about alternatives or if you have any questions or concerns about this examination.

When will I know the result?

We will send the results to the person who referred you for the test. Your referrer will make arrangements to tell you the result.

Any other questions?

Please ask a member of the team in the Imaging Department.

Please:

- Do not bring any valuables with you
- Call us if you need advice
- Call us as soon as possible if you can't keep this appointment – we can make you another and give yours to someone else

Contact Centre Telephone Number

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www.nhsgg.org.uk