

Information for patients and carers

Cardiac CT Scan

A decorative graphic at the bottom of the page consisting of three overlapping, wavy bands of blue. The top band is a light blue, the middle is a medium blue, and the bottom is a dark blue.

This leaflet explains the process involved in having a CT scan including the benefits and risks. It also provides information on what to expect when you come to hospital. If you have any further questions please speak to the doctor, radiographer or nurse.

What is a cardiac CT scan?

CT stands for Computed Tomography.

A Computerised Tomography (CT) scan uses x-rays and a computer to create detailed images of the inside of your body.

The CT scanner is shaped like a ring doughnut with a table that passes through the middle. Unlike some other scanning machines, the CT scanner is **not** enclosed.

A cardiac CT scan is a scan that looks for any calcium deposits in the arteries that supply your heart and shows your coronary arteries in more detail.

For a cardiac CT scan, it is necessary to give you an injection of an x-ray dye (contrast agent). This dye highlights blood vessels, organs and other structures of the body and helps to improve the quality of the scans.

Why should I have a CT scan?

A CT scan can help your doctor to find the cause of your problem and the best treatment options for you.

Are there any alternatives?

Your doctor feels that a CT scan is the best option for you; a standard x-ray will not provide the same level of detail.

Please inform us before you attend

- If you are or think you may be pregnant
- If you are breast/chest feeding
- If you weigh over 30 stone/190 kilograms
- If you have problems standing or need a hoist to transfer
- If you have had a previous allergic reaction to x-ray dye (contrast agent)
- If you are allergic to iodine
- If you take Viagra or similar medication
- If you have been advised or told to restrict your fluid intake
- **If you require an interpreter – please inform us as soon as you receive your appointment letter, and we will arrange an official interpreter for you**

Can you bring a relative or friend with you?

A friend or relative can accompany you to the hospital but they will usually not be allowed into the room when you have your examination.

Please note that as we have limited seating and do not have childcare facilities, you are advised not to bring small children with you to your appointment.

How long does it take?

You should plan to be in the CT department for up to 2 hours, which will include any preparation time needed for your scan and any after care. The scan itself takes approximately 30 - 60 minutes.

We will try to keep to your appointment time but occasionally we will be required to scan patients urgently at short notice. This means your scan could be delayed, but we will let you know if this is the case.

Are any special preparations required?

Over the 24-hour period before your scan you should drink a minimum of 2 litres of water. If you are on restricted fluids and unable to drink this amount, please contact the department before your procedure.

On the day of the examination please do not eat or drink products containing caffeine (tea, coffee, mineral drinks, coke, diet coke, chocolate etc.).

If you are taking Viagra or a similar medication, please contact the department.

If you are taking any other medicines, please continue to take these as usual unless you have been told otherwise by your doctor.

If you have been given beta blocker medication by your Cardiology doctor to take prior to your scan, please take these as instructed.

Please bring a list of your medications with you. If your doctor has prescribed a GTN (angina) spray, please bring this with you.

Before you attend, please complete the Cardiac CT patient safety questionnaire which you should have received with your appointment letter and bring this with you to your appointment.

What happens when you arrive at the CT department?

When you arrive at the CT department, please book in at the reception desk and take a seat in the waiting area. You will then be shown to the department's changing area and asked to put on a hospital gown before going into the examination room.

What happens during the scan?



Your CT scan will be undertaken by a radiographer who is specially trained to carry out scans.

The scanning machine is like a large ring doughnut similar to this photograph.

You will be asked to lie on the scan table and monitoring equipment will be attached to you. We need to assess your heart rate, blood pressure and oxygen levels. A small tube (cannula) will be placed into a vein in your arm. If your heart rate is too high, we may need to give you some medication to slow it down via the cannula.

For the first part of your test, the table you are lying on will pass through the middle of the scanner. You will be instructed to hold your breath for a short period. During the second part of your test, an injection of x-ray dye will be given through the cannula in your arm. During the scan, which takes approximately 5 minutes, you will need to lie very still, and

you may be asked to hold your breath for a moment. The radiographer will ensure you are comfortable. The table moves slowly and slides forwards and backwards through the centre of the CT scanner. Unlike some other scanning machines, the CT scanner is **not** enclosed.

At this point the radiographers will leave the examination room to perform the scan, but they will be able to see you through a glass window and you can talk to them through an intercom.

Once the scans have been taken the radiographer will check them briefly to ensure that they are of sufficient quality to be able to make a diagnosis.

When this has been done the radiographers will re-enter the examination room and remove the small needle from your vein. You will then be able to get off the scanner bed and leave the scanning room. If you have had medication to slow your heart rate you will be able to get off the scanner bed and leave the scanning room but we will leave the cannula in place and you will be required to remain in the department for up to an hour until your heart rate has returned to normal.

Once your heart rate has returned to normal the radiographer will remove the cannula and you will be able to go home.

Whilst the radiographer can reassure you that the appropriate images have been obtained, they will not be able to give you the results.

Are there any side effects?

When the x-ray dye is injected through the cannula in your vein it may give you a metallic taste in your mouth. It may also give you a hot 'flush' sensation and some patients feel as though they want to pass water.

Please be aware these are all very common side effects and will only last a short period of time.

After the scan

You will need to remain in the CT department for 15 minutes after your scan. This is to ensure that there are no signs of delayed allergic reaction to the x-ray dye you have been given. If you had to have medication to slow your heart rate, you will need to stay for approximately 1 hour afterwards.

We will continue to monitor your heart rate until it has returned to normal. During the next 24 hours you will be advised to drink further fluid to help flush the x-ray dye out of your body.

Are there any risks?

A very small number of patients have an allergic reaction to the x-ray dye. This can be minor, severe, or even life threatening but the chances of this occurring are very rare.

Before your examination begins the radiographer will ask you a series of questions about your medical history, including any allergies you may have. This will help us assess if you are at risk of an allergic reaction to the x-ray dye or the medicine administered to slow your heart rate.

There is a small risk that the injection of x-ray dye can leak out under the skin instead of in the vein. If this does happen, then further advice will be given by the radiographer at the time of your examination.

There are some small risks involved with the radiation received during a CT scan but only the minimum amount of radiation is used to produce the images required. We use the smallest dose possible, in line with national regulations. This allows us to make an accurate diagnosis to help plan your care. Your clinician has determined that the benefits of having the cardiac CT examination far outweigh the radiation dose you will receive.

When will I receive the examination results?

Following your cardiac CT examination, the radiologist will review the scans and write a formal report of the results. This will be sent to the clinician who referred you for this examination.

During your examination, the radiographer will advise you on how you will receive these results. Unfortunately, you will not receive any results at the time of your examination.

Contact details

Should you require further advice or information please contact CT appointments on **01772 522553**. Lines are open 8.30am to 4.30pm Monday to Friday (excluding Bank Holidays)

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.patient.co.uk

www.gov.uk/government/publications/ionising-radiation-from-medical-imaging-examinations-safety-advice/exposure-to-ionising-radiation-from-medical-imaging-safety-advice

www.nhs.uk/conditions/CT-Scan/

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www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

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If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638**

Please ask a member of staff if you would like help in understanding this information.

This information can be made available in large print, audio, Braille and in other languages.

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