

Adult patients having a CT scan of the heart

If you do not believe you should have been referred for this procedure, please contact the CT department immediately

Introduction

This leaflet gives you information about having a CT (Computed Tomography) scan of the heart.

What is a CT scan?

A CT (Computed Tomography) scanner is an X-ray machine which produces images (pictures) of the inside of the body. The scanner is made up of a 'doughnut' shaped structure (gantry), about 2 feet thick, and a couch on which you will be asked to lie. The couch will pass through the scanner.

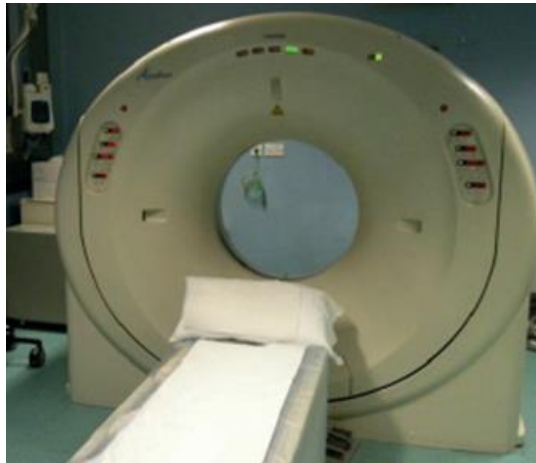


Figure 1: CT scanner

A narrow beam of X-ray is produced from a tube inside the scanner as it rotates in a complete circle around you.

The X-rays pass through your body and are detected by electronic sensors. This information passes to a computer which creates images of the inside of your body.

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Department

Radiology

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March 2027

Patient Information

It takes less than a second to produce each image which can vary in thickness from one millimetre to one centimetre. Depending on how much of your body is being scanned and the scanner used, this can be done quickly. Some scans take less than a minute.

Are there any risks?

It is important that all patients of child bearing age are scanned within the first 10 days of their menstrual cycle. If you are under 56 years of age and your appointment does not lie within this time-frame or you are or may be pregnant, please call the CT appointments team to discuss or reschedule. You will find the telephone number at the top of your appointment letter.

CT scanning does involve X-rays and so has the usual risks associated with ionising radiation. The amount of radiation is equal to the natural radiation we all receive from the atmosphere over a period of about 3 years. This adds very slightly to the risk of, for example, developing a cancer. However, Macmillan Cancer Support predict that 1 in 3 of us will develop a cancer at some stage during our lives, so this added risk is very small.

Many examinations involve you having a contrast medium (dye) injected into a vein in order to increase the amount of information obtained from the scan. This injection causes a warm feeling passing around your body. There are slight risks with this injection which are an allergic reaction or leaking of the contrast into the tissue around the vein, which can be painful.

The doctors in the Imaging/Radiology Department are trained to deal with any complications and again the risk is very small.

If you had a reaction to a previous injection of contrast medium given for a kidney X-ray (IVU) or a previous CT scan, it is important that you tell the radiographer at the time of your examination.

Please let us know on the day of your scan if you are being treated for kidney or breathing problems, myeloma, diabetes, severe allergies or if you have any special needs.

Patient Information

Giving your consent (permission)

We want to involve you in the decision about your care and treatment. We are happy to answer any questions you may have or address any concerns. This is encouraged and we like to know what is important to you and may influence your decisions. You may withdraw your consent at any time.

The Radiology Department plays an important role in the training of future healthcare professionals. The part patients play in this is vital in ensuring we produce the right quality of healthcare professionals for the future. If at any time you would prefer not to have students present, please inform the team looking after you. This will not affect your care in any way.

Are there any special preparations?

You can have a light meal 4 hours before your scan. Please make sure you drink plenty of fluid during the day **but avoid caffeine products (coffee/tea/energy drinks/coca cola/chocolate) as this may increase your heart rate.**

Take your usual medications as normal on the day of the scan. Please bring with you a list of your current medications.

Avoid smoking before your appointment as this can also increase your heart rate and can cause irregular heart rhythm.

You must remove all items of jewellery from your head and neck before attending for your appointment. We are unable to offer secure facilities for safe storage of valuables in the department. You will be asked to remove them for your scan if worn.

You may also be asked to remove any body piercings.

It is helpful if you wear loose, metal free clothing to help us to access your upper arm and chest. Alternatively, you may be asked to undress to the waist, a hospital gown will be provided.

Can I bring a relative or a friend?

Yes, but for safety reasons, they cannot join you in the CT scanning room.

**Patient
Information**

When you arrive

The appointment time on your letter includes the time needed to prepare you for the scan. This includes going through a safety questionnaire with you and recording your pulse and blood pressure.

Please be ready to tell us your height and weight as this information is important.

Just before your scan, a small cannula (thin tube) will be put into a vein in your arm. This is to allow for a contrast injection which will help us identify the blood vessels in your heart. Please let the radiographer know if you are afraid of needles or if you have suffered light headiness during previous injections.

Who will I see?

You will be cared for by a small team including a radiographer, radiographer assistant, a nurse and a radiologist.

What happens during the CT scan?

To obtain the best images of your heart the radiographers will monitor your heart rate.

You will be asked to lie down on the CT examination couch (bed) then 3 to 4 small stickers (electrodes) will be placed onto your chest and connected to a heart monitor. Depending on your heart rate, you may be given a low dose of short-acting beta-blockers. These will be given via the cannula in your arm.

You will also have a spray medication under the tongue to help with the quality of the images. The spray under your tongue may give you a minor headache or dizziness but it will go quickly.

The bed will move slowly in and out of the 'doughnut' as imaging takes place.

The radiographers will be in the adjoining control room where they will be able to see and speak to you via an intercom. You will need to lie still on your back with your arms above your head during the examination.

Patient Information

During the scan you will be asked to hold your breath for a few seconds about 4 times. If you feel any discomfort or have any worries, please tell the radiographer straightaway.

After the CT scan

You should rest quietly and drink plenty of water in the department for 20 minutes after the scan. If you have had beta blockers and your blood pressure is low you may be asked to remain in the department for longer.

You should not operate heavy machinery or drive if you experience tiredness or reduced heart rate after the beta blockers. It is recommended that you ask someone to drive you home after the scan. If this is not possible you should remain in the department until these feelings have settled.

Please contact NHS 111 for advice if you have any of the symptoms listed below after you leave the hospital following your scan:

Wheeziness, tightness or pains in the chest, skin rash, itchy spots, dizziness, fever, swelling or pain in your legs, pain or swelling near the injection site.

Will the scan be uncomfortable?

You should not feel any pain, although some people do have slight discomfort from having to lie still.

Most patients do not mind lying with part of their body within the gantry but if this makes you feel anxious, please tell the radiographer straight away.

How long will the scan take?

The whole scanning process will take about 30 minutes. Unless you are delayed due to an emergency patient, your total time in the department may be up to 2 hours.

Are there any side effects?

You may experience a warm sensation and feeling as if you need to pass urine when you are given the contrast medium injection. This is normal and will only last a short time.

Patient Information

If you have been given beta blockers your heart rate will have been reduced so we will monitor you for 20 minutes after the scan.

Can I eat and drink afterwards?

Yes, you can eat and drink as normal.

When will I get the results?

After your visit, the radiologist will look at your CT scan and prepare a report on the findings. These will be sent to your referring doctor.

Interpreters

If you will need an interpreter during your procedure, please contact the department as soon as you receive your appointment letter so we can try to arrange this.

Cancelling your appointment

If you are unable to attend your appointment, we would be grateful if you could contact us as soon as possible. We can then offer your appointment to another patient and arrange another date and time for you.

If you have had diarrhoea and/or vomiting, please cancel your appointment unless you have been free of symptoms for 48 hours. Contact the CT Appointments Officer on the number shown on your appointment letter, between 9:00am and 4:30pm, Monday to Friday.

If you do not believe you should have been referred for this procedure, please contact the CT department immediately. Please use the number shown on your appointment letter.

**Patient
Information**

Contact information

If you have a query about having the CT scan, please contact the CT Appointments Officer on the number shown on your appointment letter, Monday to Friday, 9:00am and 5:00pm.

We are pleased that we can offer state of the art technology for diagnosis. However, radiology equipment needs constant updating and there is a charitable fund for this. If you would like to make a donation, please send a cheque to the appropriate address below. Cheques are payable to GHNHSFT.

Please send your donation to:
 Administration Manager
 Dept of Radiology (Imaging 1)
 Gloucestershire Royal Hospital
 London Road
 Gloucester
 GL1 1NN

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Making a choice

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.



Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

These resources have been adapted with kind permission from the MAGIC Programme, supported by the Health Foundation

* Ask 3 Questions is based on Shepherd HL, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options: A cross-over trial. Patient Education and Counselling, 2011;24: 379-85