

**Patient
Information**

Adults having a CT scan of the body

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 Computed Tomography (CT) scan of the body. It explains how the procedure is carried out and some of possible complications.

What is a CT scan?

A CT (Computed Tomography) scanner is an X-ray machine which produces images of the body. The scanner consists of a 'doughnut' shaped structure, or gantry, about 2 feet thick, which you will pass through on a couch.



Figure 1: CT Scanner

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Department

Radiology

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A narrow fan-shaped beam of X-rays is produced from inside the gantry and rotates in a complete circle around you.

The X-rays pass through your body and are detected by electronic sensors on the other side of the gantry. The information passes to a computer which then produces a picture of the internal structure of your body.

The pictures are displayed on a TV screen and can be examined by the radiologist.

It takes less than a second to produce each slice, which can vary in thickness from one millimetre to one centimetre. Depending on how much of the body is being scanned, it will be necessary to produce images of up to 1000 slices, or even much higher numbers with some scanners. Most modern CT scanners can do this in less than a minute so the actual scanning time is short.

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. The telephone number is 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.

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Many examinations involve you having a contrast medium 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 material 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.

Am I required to make any special preparations?

You should follow any accompanying instructions which relate to the part of the body to be scanned.

Please try to wear metal free clothing, for example, no zippers, buttons, sequins or pressed buds. Where this is not possible you may be asked to change into a hospital gown.

Additionally, please remove any items of jewellery before attending for your appointment as 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.

Can I bring a relative/friend?

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

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.

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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 impact on your care in any way.

When you arrive

It is important to inform the staff in the department if you are pregnant, or even if there is a chance that you might be pregnant. You should also tell a member of staff if you have diabetes, asthma or any allergies.

Please bear in mind that we cannot accept responsibility for children under 16 within the department while you are having your examination.

For scans of the abdomen and pelvis you may be asked to drink up to a litre and half of fluid over a period of time before having your scan. This is to fill and outline the bowel and bladder. You will be asked not to empty your bladder for 15 minutes before your scan. Occasionally, for a pelvic scan you may need a small amount of fluid to be passed into your rectum (back passage).

Who will I see?

You will be cared for by a small team including a radiographer who will carry out the scan. A radiologist will review the images later before writing a report on the findings.

What happens during the CT scan?

You will be asked to lie on a scanning bed. You may be given an injection of a contrast medium into a vein in your arm. This sometime causes a warm feeling but will not last long. The contrast is used to help highlight the areas in your body being examined.

The couch 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.

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You will need to lie still during the scan. You may also be asked to hold your breath or not swallow. However, if you feel any discomfort or you are anxious, please tell the radiographer straight away.

Once the scanning is completed you will be able to visit a nearby toilet if needed.

Will the scan be uncomfortable?

You should not feel any pain, although you might feel a slight discomfort from having to lie still and from having a full bladder or rectum. Most patients do not mind lying with part of their body within the gantry but if this makes you feel anxious do tell the radiographer straight away.

How long will the scan take?

If you have been asked to drink some fluids you will need to wait an hour before your scan. The scanning process will take about 10 minutes. Unless you are delayed due to an emergency patient, your total time in the department may be up to 90 minutes.

Are there any side effects?

Not usually, although you might need to visit the toilet before you leave the department as you may have loose bowel movements for a while. If you have had a contrast injection you should wait at least 20 minutes before leaving the department.

You may drive and return to work or your normal activities after the leaving the department.

Can I eat and drink afterwards?

Yes, do so normally.

When will I get the results?

Shortly after your visit the radiologist will examine your CT scan and prepare a report on the findings. These will be sent to your referring doctor.

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Should I still take my regular medication on the day of the CT scan?

Yes, take your usual medication as normal.

Interpreters

If you need an interpreter for your procedure, please contact the department 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. Please ring 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 Radiology department immediately.

Notes

Hopefully the information in this leaflet has answered any questions you may have but remember this is only the starting point for discussion about your treatment.

Make sure you are satisfied that you have received enough information about the procedure in advance. Please feel free to contact your consultant or the Radiology Department to discuss any queries you have before the procedure.

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The section below is designed for you to make notes about anything you would like to ask during these discussions.

Contact information

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

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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:
 Business Manager
 Dept of Radiology (Imaging 1)
 Gloucestershire Royal Hospital
 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;84: 379-85



<https://aqua.nhs.uk/resources/shared-decision-making-case-studies/>