

Northampton Private Radiology

Information for Adult Patients Having a CT scan

The CT scanner

The CT scanner is in the main radiology department at Northampton General Hospital. We have two state of the art scanners; one is a 64-slice multi-slice scanner and the other a 16-slice scanner.

What is a CT scan?

A CT (Computed Tomography) scanner is a special X-ray machine which produces an image of a cross-section, or slice, of the body. The scanner consists of a 'doughnut' shaped structure, or gantry, about two feet thick, through which you pass on a couch. 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 the body. The pictures are displayed on a TV screen and can be examined by the radiologist.

It takes about 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 30 or 40 slices, or even much higher numbers with some scanners. The actual scanning time is usually less than a minute.

Are there any risks?

CT scanning does involve X-rays, and so has the usual risks associated with ionising radiation. Female patients who are or might be **pregnant** must inform a member of staff in advance. The amount of radiation is more than is used for an ordinary X-ray of the chest or body, and is equal to the natural radiation we all receive from the atmosphere over a period of approximately 3 years. This adds very slightly to the risk of, for example, developing a cancer. However, as one in three of us will develop a cancer at some stage during our lives, the added risk is very small, and also the risks from missing a serious disorder by **not** having a CT scan are considerably greater.

Many CT examinations involve you having a contrast medium injected into a vein in order to increase the amount of information obtained from the scan. The injection usually causes nothing more than a warm feeling passing around your body. There is a slight risk of an allergic reaction to the injection, such as a skin rash, but it may lead to an asthmatic attack or other significant complication. If you had a reaction to a previous injection of contrast material given for a kidney X-ray (IVP/IVU) or a previous CT scan you should tell the radiographer at the time of your examination. If you are an asthmatic, please bring your inhalers with you.

Despite these slight risks, your doctor believes it is advisable that you should have this examination, and do bear in mind there are greater risks from missing a serious disorder by **not** having it.

Are you required to make any special preparations?

You should follow any accompanying instructions which relate to the part of the body to be scanned. The radiographer will explain what will happen.

For all scans, you may be asked not to eat or drink for about two hours before the appointment. For most scans of the brain, neck and chest no special preparation is required. For scans of the abdomen and pelvis

you may be asked to drink up to a litre of fluid to fill the bowel. You will then have to wait to give it time to reach your bladder.

Can you bring a relative / friend?

Yes, but for reasons of safety, they cannot accompany you into the CT scanning room except in very special circumstances.

When you arrive

Please report to the reception desk after which you will be shown where to wait until collected by a radiographer or other member of staff.

Upon collection

You may be required to remove some clothing, in which case you will be shown to a private cubicle where you may undress and remove jewellery and watches etc. You will be asked to put on the surgical gown. You should place your clothes either in a locker or a basket which you keep with you.

It is important to inform the department if you are **pregnant**, or even if there is a chance that you might be pregnant. Similarly, you should point out if you have **diabetes, asthma or any allergies**.

Who will you see?

You will be cared for by a small team including a radiologist and radiographer. The radiographer will carry out the scan. The radiologist may be looking at the results on the screen during the procedure. It is the radiologist who will look later at the recording of the images, before writing a report on his/her findings.

What happens during the CT scan?

You will be taken to the special X-ray room and made comfortable lying on the couch. You may be given an injection of a contrast medium into a vein in your arm, which sometimes causes a warm feeling for a short while. The couch will be moved slowly to position the part of your body under investigation within the 'doughnut'. The radiographers will retire to the control room but you will be able to talk to them via an intercom, and they will be watching you all the time.

During the scan you may be asked to hold your breath or not swallow while each image is being produced. However, if you feel any discomfort or apprehensions do mention it immediately to the radiographer.

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

Will it be uncomfortable?

No. You should not feel any pain. Most patients do not mind lying with part of their body within the 'doughnut', but if this makes you feel apprehensive do tell the radiographer straight away.

How long will it take?

If you are given fluid to drink on arrival, you might have to wait an hour before entering the scanning room. The scanning process will then take about 10 minutes. Unless you are delayed by having to wait, such as for an emergency patient, your total time in the Department will be about 90 minutes.

Are there any side effects?

Not usually, although you might need to visit the toilet. You can drive home afterwards and may return to work as necessary. If you have had a contrast injection, you will be advised about when you can leave the department.

Can you eat and drink afterwards?

Yes, do so normally.

When will you get the results?

The radiologist will examine your CT scan shortly after your visit, and prepare a report on the findings. This may take some time to reach your referring doctor, but is normally about 48 hours. You could ask the radiographer or radiologist for some indication of timing.

If you have a query?

If you have a query about having the CT scan, please ring the Radiology Department on 01604 545637 during office hours.