

## CT Scan

### What is a CT scan?

**Computed tomography (CT) is a scan that uses X-ray equipment and computer software to create images of the inside of your body.**

The CT scanner is a ring-shaped machine. Inside the ring is an X-ray tube that produces a fan-shaped beam of X-rays. The tube rotates around your body as you lie flat, creating individual images that are cross-sections, or slices, of your body. The computer is able to join the slices together to give three-dimensional views. CT scans are used to diagnose and monitor many health conditions including cancer.

### What are the alternatives?

Alternative imaging procedures include ultrasound and a magnetic resonance imaging (MRI) scan. Other ways of looking inside your body include endoscopy or surgery. Your doctor will explain the benefits and risks of having a CT scan and discuss with you which procedure is most suitable for you.

### Preparing for your CT Scan

You should continue to take any prescribed medication as usual. If there are any special preparation requirements, you will be told these when you book your CT appointment.

For the CT scan you will be asked to remove your outer clothing and you may need to change into a gown. Depending on the area being scanned you may be asked to remove, jewellery, piercings, hair accessories, dentures, hearing aids and watches.

### About the procedure

The scan will be carried out by a radiographer (a health professional trained to perform imaging procedures). He or she will explain what will happen and answer any questions you may have. Depending on the area of your body being scanned, you may need to have an injection of a special dye called contrast medium. This is used to make certain organs or blood vessels show up more clearly. The contrast is injected into a vein, usually in your hand or arm, and it can cause a warm, flushing feeling but this passes quickly.

Your radiographer will position the table so that the part of your body to be scanned is in the centre of the scanner. The table will move backwards or forwards slowly. You may be asked to breathe in and hold your breath at certain points during the scan. For the rest of the time, it's important to lie very still. If you get claustrophobic, it's a good idea to mention this to your doctor or radiographer beforehand.

The radiographer won't be in the scanning room with you during your scan. He or she will be able to see you through a window, and will be able to speak to you via an intercom. You will be in the scanner for between 5 and 15 minutes depending on what type of scan you're having. Your total time in the department will usually be less than 30 minutes.

## **What to expect afterwards**

When you feel ready, you can go home. If you've had an injection of contrast medium, you should wait at least 15 minutes before leaving the department.

## **Getting the results**

A radiologist (a doctor who specialises in using imaging methods to diagnose medical conditions) will look at the scans and write a report. This will be sent to the doctor who referred you for the scan within 24 to 48 hours. He or she will discuss the findings with you at your next appointment.

## **What are the risks?**

CT scans are commonly performed and generally safe. However, in order to make an informed decision and give your consent, you need to be aware of the possible side-effects and the risk of complications for this procedure.

You will be exposed to some X-ray radiation. The level of exposure will depend on the area of your body that is being scanned. If you have a CT scan of your head, this will be the same as you would receive naturally from the environment over about a year, but a CT scan of your abdomen will be more. In excessive amounts, X-ray radiation can increase your risk of getting cancer. However, any risk is generally outweighed by the advantages of having the scan. Your doctor will be able to explain this to you in greater detail.

If you have an injection of contrast medium it may give you a warm, flushing feeling. This side-effect should last only a minute or two. In rare cases, it's possible to have an allergic reaction to the contrast medium injection. If you have any itching or difficulty breathing, tell your radiographer immediately. Medicines are available to treat any allergic reaction.

Pregnant women are advised not to have CT scans as there is a risk the radiation may harm the unborn baby. If you are, or could be, pregnant, please tell your doctor or radiographer.

## **Contact**

If you have any questions or need further information, please contact the CT department on Tel: +44 (0)20 7460 5613 or Fax: +44 (0)20 7835 2493. The department is open Monday to Friday between 9.00am and 5.30pm.

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Published: November 2013  
Review: November 2015

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