

scan is determined by the radiologist (or standard protocol) based on the information provided to us by the doctor who referred you for the scan. Adverse reactions to contrast do occur but serious reactions are rare.

### Oral contrast

The contrast we supply is safe to drink (with squash to taste if desired) and is usually well tolerated. It may occasionally cause diarrhoea and has the potential to cause an allergic reaction. Do not drink it if you have a known allergy to X-ray contrast – instead contact CT bookings on 0121 371 2360 or 0121 371 2361 for further advice.

### Intravenous (through the vein) contrast

At the time of injection, it is usual to experience a temporary warm feeling passing around your body. Mild adverse reactions to injected contrast include nausea and vomiting, headache, itching, flushing, mild skin rash or hives. Moderate reactions happen occasionally and include severe skin rash or hives, wheezing, abnormal heart rhythms or high or low blood pressure.

Severe life-threatening reactions are extremely rare and include difficulty breathing, cardiac arrest, swelling of the throat or other parts of the body, convulsions (a fit) or profound low blood pressure.

A small percentage of patients may develop a skin rash which may occur hours to days after the injection. If this happens, please let us know as this may be relevant for any future scans.

Occasionally the contrast can leak outside the vein on injection causing temporary pain and swelling. Be assured we are well equipped to deal with any of these problems should they arise.

### Intravenous contrast and the kidneys

In people whose kidneys are working normally, contrast very rarely causes kidney problems.

If you are aged over 70, or have a history of heart

failure, kidney disease, diabetes or high blood pressure you should have a kidney blood test done within eight weeks of the scan to check that your kidneys are working normally. We may not be able to do the scan if the result of the blood test is not available.

In people whose kidneys are not working normally and who are given intravenous contrast (not oral contrast) a temporary kidney injury may occur. If this were to happen, the majority of people would feel no different than usual, and the injury would only be apparent if a kidney blood test was done.

In the vast majority of cases the blood test returns to a normal value after a few days but very occasionally the kidney injury may affect your health. Although very rare, there are occasions when it may be necessary to support the kidneys on a dialysis machine.

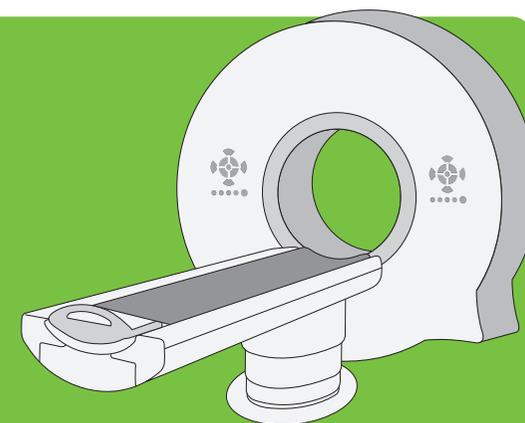
If your kidneys are not working normally the doctor who referred you for the scan may advise precautions such as extra fluids or avoiding certain medications around the time of the scan. If your kidney function is particularly low, the risk of significant kidney injury is higher and we may not give you intravenous contrast for the scan. We may sometimes do a different imaging test (if possible).

### How will I get the results?

**The X-ray department will not be able to give you the results.**

As a guide:

- If your scan was a hospital referral you will get the results either in the Outpatient Clinic you have attended or by letter. Please contact the doctor's secretary via the hospital switchboard (0121 627 2000) or the Outpatient Clinic if you have any queries.
- If your GP referred you, please make an appointment to see them after your scan.



## What is a computerised tomography (CT) scan?

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## What is a computerised tomography (CT) scan?

A CT scan uses X-rays to take detailed images of your body. Images from the scan will be examined by a radiologist (a doctor who specialises in imaging tests) in order to diagnose any problems. The machine is shaped like a large doughnut rather than a tunnel.

## What do I need to do before the test?

- **If you cannot keep your appointment, please contact us on** 0121 371 2360 / 0121 371 2361 or email CT-Bookings@uhb.nhs.uk so that we may offer your appointment to another patient.
- If you are a woman of childbearing age (11–55 inclusive) please read the accompanying information document.
- Take all your normal medications as usual. If you are having a scan of your abdomen or pelvis then do not have anything to eat or drink for three hours before your appointment except for clear fluids to satisfy your thirst and to take medications.
- Please check the appointment letter and carefully follow any additional instructions.
- If you need an interpreter please contact us before the scan so we may arrange one.
- If you are aged over 70, or have a history of heart failure, kidney disease, diabetes or high blood pressure you should have a kidney blood test done within eight weeks of the scan to check your kidneys are working normally. We may not be able to do the scan if the result of the blood test is not available.

## Where do I go for the scan?

Please follow signs to the **Imaging Department on Level 0** of Queen Elizabeth Hospital Birmingham, Mindelsohn Way, Edgbaston B15 2GW.

## May I bring a relative or friend?

The waiting room is small and usually busy so please

minimize the number of people accompanying you. If you bring children, you will need a responsible adult to supervise them during the scan as they cannot come into the scan room.

## What should I wear?

You can sometimes be scanned in your own clothes but for some examinations it is better to change into a hospital gown. It is helpful if you wear loose fitting clothes, especially around your arms. It is important that there are no zips, metal clasps or underwires on your clothes in the areas that we need to scan. For chest scans, bras will need to be removed.

## What happens when I arrive?

Reception staff will direct you to the CT scan waiting area. For many examinations of the abdomen and pelvis you need to drink a liquid for up to 60 minutes before the scan. The liquid highlights the bowel (gut) and helps with interpreting the scan. Please allow up to two hours in the hospital for your scan however the scan itself usually takes 15 minutes.

## What happens during the scan?

The radiographer will explain the test and complete a checklist with you. They will also answer any questions you have. After lying down, the scan table moves to scan the required area.

**Please keep very still when the pictures are being taken. Please hold your breath when asked** – tell us before the scan if this will be difficult for you.

During the scan the radiographer will be able to see you from the control room and you can talk to them via an intercom. The scan does not hurt but the machine makes a whirring noise. For many scans you will receive an injection of X-ray contrast which shows up in your blood vessels and body organs giving us extra information. In this case you will have a needle (cannula – thin plastic tube) inserted in the arm to inject the contrast.

## What happens after the scan?

You will usually be able to leave 10 to 20 minutes after the scan and eat and drink normally. There is no reason you cannot drive home and resume normal activities, unless we inform you otherwise prior to the scan. If you have a cannula inserted, you can remove the plaster or gauze dressing approximately one hour after the scan.

## Are there any risks?

A CT scan is considered to be a safe test. Your doctor who referred you for the scan thinks that the benefits of finding any problems or planning your treatment is greater than the small risks of the scan.

If you have any questions about whether you should have the CT scan, please discuss this with the doctor who has referred you but you may also contact us in the CT bookings office on 0121 371 2360. If you do not raise concerns that you think may be of particular importance to you, we cannot advise you properly.

## The use of X-rays

CT scanning uses X-ray radiation to form a picture. The amount of X-rays used varies according to the type of scan but can be equivalent to the amount of natural radiation we receive from the environment over a period of approximately three to five years. We adjust technical factors in order to reduce the X-rays dose to as low as we possibly can. X-rays may increase your risk of getting cancer but this risk is believed to be very small. X-rays may potentially harm unborn babies so we routinely ask women of childbearing age to confirm they are not pregnant.

## What is contrast and are there any risks to having contrast?

Many scans require X-ray contrast liquid to be drunk, injected or occasionally taken by enema (a liquid into the rectum – the final segment of the large intestine) in order to increase the amount of information obtained from the scan. The use of contrast for your