

Department of Clinical Neurosciences



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What is a CT scanner & how does it work?

The initials CT stand for Computerised Tomography. CT is a method of obtaining high quality images of the human body using X-Rays which are then processed by a powerful computer. The CT scanner is used to take cross sectional pictures of the body and can show bone, soft tissues and vessels.

Radiation

CT scanners use radiation to generate the 3D pictures we need for your diagnosis and treatment. We are all exposed to natural background radiation every day of our lives. This comes from our environment, the air we breathe, the food we eat and even from outer space. In Scotland the largest contribution comes from natural radiation in the underlying rocks and building materials.

Each medical X-ray gives us an additional amount of radiation on top of the natural background radiation. The amount varies depending on the examination. CT scans will use several times more radiation than a typical X-ray. This is what you might be exposed to naturally over a 3-4 year period. The examination you will be having carries a low risk.

What will the CT examination involve?

You will be asked to lie still on the scanning table. The scanning table will move periodically throughout the scan, however, you will not feel anything whilst the scan is proceeding. The scanner sounds like a washing machine.

The radiographer will be in contact with you throughout the scan which will typically take about 10-15 minutes. You may be required to have an injection of X-Ray dye in your arm during the scan (which highlights the blood vessels). If so, you may experience a warm feeling as the dye circulates around your body.

What preparations will be required?

For some scans you may be asked to fast or to drink fluid prior to your appointment. Please check your appointment letter for instructions. You may also be asked to drink some X-Ray dye (which highlights the bowel) over the period of an hour prior to your scan. This will be included in your appointment time.

You will be asked to remove all objects such as watches, certain jewellery, keys, coins, credit cards, hairgrips etc. (A locker will be provided). You will also be asked to undress and put on a hospital gown/scrubs to ensure that there are no metal zips, buttons etc that could affect the image quality.

You are strongly advised not to bring any articles of value into the Hospital.

NHS Lothian cannot accept any responsibility for personal effects.

Questions you may be asked prior to having your scan:

- Are you pregnant? If you think you may be pregnant please contact the department at the earliest opportunity to discuss.
- Do you have any allergies?
- Are you asthmatic?
- Are you diabetic? What medication, if any, are you on?
- Do you have any problems with your kidneys?
- Do you suffer from hay fever?
- Have you ever had a reaction to x-ray dye in the past? If so please contact the department at the earliest opportunity to discuss.

What if I am on some form of medication?

Do not stop taking any prescribed medications, as it will not affect your scan. Nor will the scan affect the usefulness of the drug.

What happens after the scan?

Once your examination is complete and the scan pictures have been checked to ensure we have all the information we need, you will be able to go home. If you have had an injection of contrast you will be asked to remain in the department for 15 minutes while the body absorbs it. You should experience no discomfort and can return to your normal daily routine.

How will I get my scan results?

- General Practitioner Referral: The result should be available for your GP to view in around 3 weeks. Please contact your GP to receive your results
- Out Patient Referral: The result should be available for the doctor or consultant who requested the scan to view in around 3 weeks. He/she will be in contact with you to discuss the results or to arrange a follow-up appointment

Scan results are not available directly from the CT department

Keeping your Appointment

If you cannot keep your appointment, or have been given one that is unsuitable, please change it by phoning the number on your appointment letter. Your call will give someone else the chance to be seen and will help us keep waiting times to a minimum.

If you have internet access you may find the following websites helpful for their description of common radiology examinations:

www.radiologyinfo.org

www.asnr.org/patientinfo

