

CT scans: Patient Information

What is CT?

Computerized tomography (CT scan) — also called CT or 'CAT scan' — combines a series of X-ray views taken from many different angles and computer processing to create cross-sectional and sometimes 3-dimensional images of the bones and soft tissues inside your body.

A CT scan has many uses, but in haematology it is often used to investigate structural abnormalities of organs such as lymph nodes, liver, spleen, lungs, pancreas, pelvic organs, bone, brain, etc.

Why has a CT been ordered?

Your haematologist may recommend a CT scan to help:

- Diagnose or locate a tumour, infection or blood clot
- Guide procedures such as surgery, biopsy and radiation therapy
- Detect and monitor diseases and conditions such as blood cancer, heart disease, lung nodules and liver masses
- Detect internal injuries and internal bleeding

What are the risks of CT scans?

Radiation exposure

There is some radiation exposure during a CT scan, a significant amount more than from a plain X-ray. This dose of radiation has a very small potential to increase your risk of cancer. However, your CT scan has been ordered because your haematologist feels that the scan may have many benefits that may outweigh potential risks. Modern CT machines and techniques may expose you to less radiation, and your doctors will always use the lowest dose of radiation whenever possible.

Possible harm to unborn babies

You must tell your doctor if you're pregnant, or if you might be pregnant. The radiation may pose a risk to unborn babies, so an alternative type of exam may be recommended instead, such as ultrasound or magnetic resonance imaging (MRI).

Reactions to contrast material

Some CT procedures require injection of dye called a contrast material through a vein in your arm. Although rare, occasionally patients can be allergic to this dye, resulting in either a mild itch or rash, but possibly more severe anaphylaxis. Tell your doctor if you've ever had a reaction to contrast material.



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Many patients feel an unusual sensation of warmth or feel as though they have emptied their bladder during the injection of contrast. This is normal, and is not an allergic reaction.

Patients with poor kidney function may not be able to have intravenous contrast, as this may worsen their kidney function.

Do I have to fast for my CT?

Many CT scans do require fasting. Check with your doctor or the organising radiology staff prior to your test.

What do I need to do to prepare?

You may need to fast from food and fluids prior to your test. Check with your doctor or nurse.

Remove all metal jewellery prior to the test.

You will need to change into a hospital gown for the test.

What happens during the test?

You will lie on a narrow bed (gurney), and the staff will position you in the best way to get the best pictures. The gurney moves through the machine which is often ring-shaped like a Japanese gate or doughnut. You may hear some noises like clicks or whirring which is the machine taking your pictures. Try to remain as still and as relaxed as you can. The test is painless and modern CTs are often quite quick, taking less than 30 minutes to complete.

After the test you will be able to return to normal activities. You will be encouraged to drink plenty of fluids to flush out the contrast/dye from your kidneys.