Information for Consumers - Computed Tomography (CT)

This article tells you about a computed tomography (CT) scan, the benefits and the risks, what happens before, during and after having a CT scan.

What is a CT scan (CAT scan)?

A computed tomography (CT) scanner uses x-rays (a special type of radiation) and a computer to make pictures of the inside of your body. It is similar to a plain x-ray however it takes lots of pictures of a section (cross sections) of your body instead of just one.

You may be asked to drink a special liquid or be given a special x-ray dye by an injection.

The scanner has a round opening in the centre and a flat bed for you to lie on. While you are lying on the bed, it will slowly move you into the opening where the pictures are taken. The movement is controlled by the CT staff.

Benefits of CT scans

- Used for diagnosis to show detail of parts inside your body, such as the lungs, brain, abdominal organs, bones and blood vessels
- Can be used to look at parts inside your body instead of using surgery
- Although CT scans use radiation, no radiation is left in your body after the scan is finished
- Painless, accurate and fast

Risks of CT scans

Your doctor knows the risks of having a CT scan. Your doctor will consider the risks before recommending you to have a CT scan. Possible risks are:
Not recommended for pregnant women
Small amount of radiation. The amount of radiation you are exposed to depends on the number of pictures taken and the part of the body being examined
Extremely small chance you could develop cancer in the long term from the radiation

If you are having x-ray dye, there is a small risk of:

- An allergic reaction. You may have nausea, sneezing, vomiting, itching, hives
- Infection at the site of an injection

If you are concerned about the risks, talk to your doctor before the examination.

**Preparation for the CT scan**

- Bring your referral letter or request form and all x-rays taken in the last 2 years with you
- Leave the x-rays with the radiology staff as the doctor may need to look at them. The radiology staff will tell you when these are ready to be picked up
- Wear comfortable, loose clothing
- Leave all jewellery and valuables at home

If you are having 'dye':

- You may be asked not to eat or drink for a few hours before the CT scan

**Important to tell your doctor before the scan**

- If you are or may be pregnant
- If you are having 'dye' tell the staff about any allergies and medical conditions you have, including asthma, diabetes, heart disease, kidney disease or thyroid problems. Also, tell them about any medications you are taking.

**Just before the CT scan**

- You may be given a gown to wear
- You may be asked to remove any metal objects

**Consent**

You have the right to refuse an examination and may do so if you wish. You may be asked to complete a consent form.

**What happens during a CT scan?**

Staff will ask you to lie on the bed, either flat on your back or on your side or stomach. Straps or pillows may be used to help you keep still during the scan, however you will be able to remain comfortable.
If you are having dye injected:

- CT staff will put a needle into a vein in your hand or arm
- A salt water fluid may be passed through the needle so that it does not become blocked

Possible side effects of the 'dye':

- You may feel a slight stinging sensation and a warm flushing feeling for a few seconds
- Metallic taste in mouth
- You may feel like you are wetting your pants, **but you will not be**

The staff will leave the room and control the movement of the bed from behind a screen. They will see, hear and speak to you at all times. You will be able to speak to them at all times. They will tell you what is happening, when to hold still and if you need to take a deep breath and hold it. If you get stiff, need to move or are feeling closed in (claustrophobic), tell the staff.

The CT staff will use a remote control to slowly move you into the opening of the CT scanner.

When the scanning is finished you will be asked to wait while the staff check the pictures.

The scan including getting you ready on the table takes between 10 to 30 minutes.

**When will I get the results?**

The amount of time it takes for you to get your results will differ depending on where you get your scans done. The radiology doctor will look at the pictures and write a report. The pictures may be on films or on a CD.

Ask whether you should wait to take the pictures and report with you, or whether they will be sent to your doctor.

Your doctor will need to discuss the report with you. You will need to make an appointment to do this.

**After the CT scan**

You will be able to leave soon after the CT scan is finished and can continue with normal activities.

If you had 'dye':

- Staff will need to take out the needle if it is still in your arm
- Staff will give you any special instructions
- The dye will pass out of your body in your urine. You will not notice it as it is colourless
- Drink plenty of fluid to help get rid of the dye

**Costs**

For an Australian patient in a Public Hospital in Western Australia

- Public patient - no cost to you unless advised otherwise
- Private patient - costs can be claimed through Medicare and your health insurance provider
For a patient in a Private Hospital or Private Imaging Site in Western Australia or a patient outside Western Australia

- Ask your doctor or the staff where you are having your test done what the cost will be

**Further information**

For more detailed information please access CT from InsideRadiology at: [www.insideradiology.com.au](http://www.insideradiology.com.au)

This is a resource produced especially for consumers by the Royal Australian and New Zealand College of Radiologists: [www.ranzcr.edu.au](http://www.ranzcr.edu.au)

A guide to gathering information that you may need for making informed decisions is published by the Consumers' Health Council of Australia at: [https://chf.org.au](https://chf.org.au)

If you would look at another relevant article, please access the following: [Radiation risks of x-rays and scans](http://www.insideradiology.com.au)


Or if you have questions or require any further information please contact your doctor or speak to the staff where you are going to have your procedure.

**Consumer participation**

This information has been reviewed by representatives from the following groups:

- Aboriginal people
- People with disabilities
- Seniors
- CALD (Culturally and Linguistically Diverse)
- The Health Consumers' Council

**Feedback**

All feedback, comments and suggestions regarding consumer information at Diagnostic Imaging Pathways are welcome. Please direct them to the following email address: dipfeedback@health.wa.gov.au

**Disclaimer**

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The information is kept as up-to-date and accurate as possible, but please be warned that it is always subject to change

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