Information for Consumers - Computed Tomography (CT) Angiography

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

What is CT angiography?

A CT scanner uses x-rays 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.

CT angiography uses CT and a special dye (contrast) to look at blood vessels in your brain, neck, heart, lungs, kidneys and legs.

The CT 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 associated with CT angiography

- Used for diagnosis to show very detailed pictures of inside your head, neck, body, legs and arms
- Can be used during surgery to look at blood vessels while they are being repaired
- Although CT scans use radiation, no radiation is left in your body after the scan is finished
- Painless, accurate and fast

Risks associated with CT angiography

Your doctor knows the risks of CT angiography and will advise you whether the benefits outweigh any
possible risk. Possible risks are:

- Not recommended in early pregnancy
- 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 have a known kidney disease
- An allergic reaction from the dye. You may have nausea, sneezing, vomiting, itching, hives and dizziness. More serious reactions can occur, but are very rare
- Infection, bleeding or injury at the site of an injection

If you are at all concerned regarding the risks, talk to your doctor before the examination.

**Preparation for CT angiography**

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

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

- If you are or may be pregnant
- About any allergies and medical conditions you have, including asthma, diabetes, heart disease, kidney disease or thyroid problems
- 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 CT angiography**

Staff will ask you to lie on the CT scan bed. Straps or pillows may be used to help you keep still during the scan, however you will be able to remain comfortable.

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

Possible side effects of 'dye':
You may feel a slight coolness and a flushing for a few seconds.
Part of your body may feel warm - if this bothers you, tell the staff.

The staff will leave the room and control the movement of the bed from behind a screen. They will be able to 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 takes between 30 minutes to one hour.

**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 procedure**

You will be able to go soon after the procedure is finished and can continue with normal activities.

- 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 InsideRadiology at: 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

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

If you would like to look at other relevant articles, please access the following:

- **CT scan**
- **Radiation risks of x-rays and scans**


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

References

CT Angiography, Radiology Info: www.radiologyinfo.org

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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