CT (Computed Tomography) scan

Welcome to the Southern Adelaide Health Network. This information sheet aims to answer any questions you may have about your child having a CT scan.

What is a CT scan?

CT stands for Computed Tomography. CT is also sometimes called a CAT scan.

A CT scan uses X-rays, which provide images of what is hard and soft inside a body. These X-rays are taken by a rotating ring that is moved around the body. A computer then turns all the X-ray images into 3-D images.

These 3-D images give doctors many views of what is happening inside your child's body. They are particularly useful for investigating problems in the head, chest and abdomen, and some fractures.

Dentists and dental specialists (such as orthodontists) sometimes use CT scans, particularly a form of CT known as cone beam CT, to help them provide better dental care.

CT scans can be done for many different reasons:

- To look at the shape or structure of parts of the body (anatomy)
- To check for any signs of disease
- To help plan follow-up treatment after a procedure
- To help with planning before an operation.

A CT scan can be done on any area of the body.

What are the benefits of CT scan?

CT scans can provide information that other types of imaging are unable to provide. A CT scan may be the best choice for your child.

In emergency situations, CT scans are often the quickest and most accurate way to see inside the body. Your child's doctor may decide that a CT scan is needed so that they can make urgent decisions about treatment, including if there is serious trauma to the head, chest or abdomen.

Your child's doctor or dentist can advise you about the benefits and risks to consider

What can be done to reduce radiation exposure from CT scanning?

Let the doctor or dentist know if your child has had a CT or another type of scan before, because the results of these earlier tests may be helpful. This is particularly important if your child needs regular CT scans for an ongoing health issue..

Take previous scans and X-rays to your child's appointments, including dental appointments.

You can ask your child's doctor or dentist why they have decided a CT scan is necessary. If a diagnosis is not required urgently, they may consider other options, including a 'wait-and-see' approach.

It is always okay to ask your child's doctor whether any other tests could be used that do not use radiation. The doctor may consider other types of imaging that don't use radiation, such as ultrasound and magnetic resonance imaging (MRI). However, these other tests may not give them the information they need for your child.

What is involved with a CT scan?

The CT scanner is a big open doughnut-shaped machine. Patients lie down on a table which is moved through the middle of the machine. Patients go in and out of the machine at least twice. The CT scanner takes all of its pictures as the table is moving. The patient needs to keep very still for the pictures and sometimes hold their breath; usually less than 10 seconds. Generally the CT scan study takes about 10-15 minutes, but the pictures are taken in only 5-10 seconds.

Preparing for a CT scan

Preparation for a CT scan depends on the body area that is being scanned.

If your child is having an abdominal scan they may need to drink an oral contrast. This is a drink that helps the radiologist to see the stomach and intestines more clearly.

Because every child is different, the radiologist may need to decide before the CT scan that your child needs I.V.(intravenous) or oral contrast. As a precaution, most children need to 'fast' (have nothing to eat or drink) before the CT scan.

If your child needs contrast, sedation or a general anaesthetic, you will be given further information about this to help prepare your child.

Bringing along a favourite toy can help your child keep still during the scan. CT scans are generally quick, but if your child moves or cannot hold their breath if required, it can blur the images so that a scan may need to be repeated.

Sometimes, sedation or a general anaesthetic is needed for children who are unable to stay still or hold their breath for the scan.

If your child is to have their chest or abdomen scanned, you can help them practise holding their breath at home before the scan. You and your child can also watch a useful YouTube video, 'Having a CT scan of your chest'.

CT scan with general anaesthetic (GA)

Some CT scans are done under general anaesthetic. This is usually for babies and younger children who cannot stay still or hold their breath for the duration of the scan. These children need to fast - have nothing to eat or drink – generally between 2-4 hours prior to scan. Please confirm fasting times with your nurse or doctor prior to scan

After the CT scan, your child will be taken to the recovery room where they are monitored until they are awake. Once awake, they can usually eat and drink right away, then go home about one to two hours later.

After the scan

If your child has not had I.V. contrast or general anaesthetics (GA), you will be able to leave straight after the CT scan.

If I.V. contrast was needed, we will observe your child for 15mins after the CT scan before allowing you to leave the department. If your child had a general anaesthetic (GA) you will need to wait until they are fully awake and until staff say it is OK to go home or back to the ward(see below).

A radiologist will send the report to your referring doctor, usually within a week. If the results are needed earlier your doctor can phone the radiologist.

If you still have questions, who should you talk to?

If possible, you should first talk to the doctor or dentist who requested the CT scan. They can help you with decisions about the right test for your child.

You can also ask questions of the person doing the scan.

Adapted from

CT scan fact sheet: The Sydney Children's Hospital Network
www.safteyandquality.gov.au/ctscanforkids
CT scan: fact sheet, Royal Children's hospital, Melbourne
healthdirect - CT scans: information for parents and carers.

For more information

Flinders Womens and Childrens
Flinders Medical Centre
Bedford Park
South Australia 5042
Telephone: 08 8204 5511
www.sahealth.sa.gov.au

Interpreter

https://creativecommons.org

This document has been reviewed and endorsed by consumers.

© Department for Health and Wellbeing, Government of South Australia.
All rights reserved. Reviewed March 2026. Next review March 2029.

Government of South Australia

Health
Southern Adelaide
Local Health Network