



## CT Scan

### When do I need a CT scan of my spine?

Computed Tomography Scans (CT scans) provide a way of using X-rays to take a series of images that are very fine slices through the part of the body that your surgeon is investigating. These fine slices may range from 4 to 64 slices or even up to 320 slices and can be used by the radiographer to reconstruct the images to help the radiologist have a detailed picture of the structures making up the body.

CT scans are not usually recommended to diagnose a back or neck condition when you first experience symptoms. But they can assist your surgeon with diagnosis so that the right treatment can be planned. CT scans can be used to provide detail of internal organs, bones, soft tissue and blood vessels in greater detail than regular X-rays.

### How do I prepare for my CT scan?

In most cases, there is no special preparation for a CT scan of your spine. Generally, you will be able to eat and drink normally on the day of the scan and you can continue to take any prescribed medication.

Some types of CT require an injection of an iodine-containing contrast material to be injected to show blood vessels and some organs. This will generally be discussed at the time of booking or when your surgeon refers you for the scan. For these tests, patients will be required to fast (not eat or drink) prior to the scan. If you do require a contrast injection, you will have a cannula inserted into your vein so that the contrast material can be given during the test. Most patients report a strange metallic taste in the mouth and feel a warm sensation in the body when the contrast is injected. This is a common sensation and usually goes away within a few minutes.

It is important that you tell the radiographer if you have any medical conditions such as asthma, diabetes, heart disease, kidney disease or thyroid problems and also any medications you are taking. You should also notify the radiographer if you are pregnant or if you have any allergies to contrast dye or iodine prior to the scan.

It is also important that you bring your referral letter or request form with you to the appointment.

### How is a CT scan done?

CT scans are tailored to the specific part of the body being investigated and the specific condition.

The CT machine consists of a large square machine with a circular hole or tunnel through it. Patients are generally required to lie down on a flatbed attached to the scanner and then the bed slides in and out of the tunnel several times. The X-ray tube or ring will rotate around you several times.

It is particularly important that you remain still during the scan to ensure that the highest quality image is produced. A computer workstation will process the imaging information, which is generally in a separate control room.



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## What are the risks of CT scans?

Like many types of radiology, a CT scan involves exposure to radiation. An increased lifetime cancer risk is a rare risk due to this exposure to X-rays. Due to this exposure this test should also be avoided in female patients who are, or may be, pregnant.

## Delivery of Results

After your CT scan, the images will be reviewed for clarity and accuracy by the radiographer. Images obtained from your scan are digitally recorded and stored. A radiologist interprets the images and provides a detailed report for your surgeon within 24 hours.

Your surgeon will review the CT scan with you at your next appointment.

If the scan was performed by [Qscan \(www.qscan.com.au\)](http://www.qscan.com.au), patients are able to access their CT report and images electronically via the Qscan patient online app and web portal.

## How is a CT scan different to an MRI?

Both a CT and MRI scan provide images of high detail; however, each scan allows the surgeon to have different resolutions and images of internal body structures. MRI scans provide better contrast resolution by allowing a differentiation of tissue structures within the body. CT scans provide better spatial resolution which allows finer detail to be seen. The images of both scans can be manipulated via a computer to show the tissue in different planes. While neither scan is superior to the other, each scan has its benefits to help assess the disease process and diagnosis. Your surgeon will choose the appropriate scan based on your particular condition.

In terms of radiation exposure risk, MRI scans do not carry this risk while CT scans do.

## How much will it cost?

Some investigations are bulk billed while others have out-of-pocket costs associated. This can depend on the investigation and the radiology clinic performing the investigation.

If Gold Coast Spine staff book an investigation for you, we will advise you of any costs.

A radiology referral can be taken to any Australian radiology company and the investigation performed. However, our surgeons have very specific requirements in relation to most of their investigations and it is important these are met each time an investigation is performed.

Should you wish to take your referral to another radiology company, please check with one of our staff first to ensure that the correct imaging is taken.