



## Introduction – CT Scan

Computed Tomography (CT) uses special x-ray techniques to produce multiple images (slices) of the body. Slices are produced by a rotating x-ray tube that rotates 360 degrees around the patient's body. Slices are usually taken approximately 2.5 - 5 mm apart and are used to create 2 dimensional images of soft tissues and other structures not captured in conventional x-rays. The 2D images can also be combined to create 3D images for some exam types. CT scans are particularly useful in the diagnosis of trauma, musculoskeletal disorders, cardiovascular disease, infectious diseases, and cancer.

## Procedure

### Preparation

Preparation will vary by procedure. You will be advised of your preparation instructions prior to your appointment.

### How it Works

The CT scan room consists of an open ended doughnut shaped piece of equipment called the gantry, and a table which the patient lies on. The gantry contains the x ray tube and multiple detectors which are used to generate the images. During a scan the patient will pass through the gantry while lying on the table and images are produced. It is important to hold still and follow any breathing instructions during the scan.

You may be given fluid by way of drinks or an intravenous to best demonstrate the area of the body your physician has requested to see.

### Benefits

CT scans are able to quickly produce very detailed images that cannot be produced with other x-ray equipment. They are an invaluable tool used in the diagnosis of diseases and allow physicians to see fractures, abnormal anatomy, bleeding, blockages and other conditions without invasive surgery.

### Risks

As with all radiological procedures, you will be exposed to a small amount of radiation. This amount varies with the region being scanned and other factors. Advances in CT technology ensures that the lowest possible amount of radiation given in order to obtain the images requested by your physician. If you are receiving intravenous contrast for your scan there is a small risk of an allergic reaction, however this is extremely rare. Before performing the procedure, the technologist may ask if you have:

- any allergies
- previous allergic reactions to x-ray contrast or dyes
- are taking medication or history of asthma, heart, or kidney problems
- a possibility of being pregnant

For more detailed information regarding risks associated with CT Scans please refer to the following link: [Do you need that scan?](#)

## **Referrals**

Referral required.

Appointment required: you will be contacted to arrange a date and time.

## **Results**

A radiologist, who is a physician specifically trained to supervise and interpret radiology examinations, will analyze the images and send a report to your referring physician, who will share the results with you.

## **Language**

If the patient has difficulty understanding English, an interpreter needs to accompany the patient.