

## Computed Tomography Outpatient Information

### Diagnostic Radiology

#### Information about your Computed Tomography (CT) Scan

Computed Tomography (CT) Scan or Computed Axial Tomography (CAT) Scan are unlike conventional X-Ray images. The images appear as slices, like slices in a loaf of bread. An X-Ray Technologist, who has had special training in CT Scanning, will perform your scan. The images are then read and reported on by a Radiologist, who is a Physician who has had specialized training in computerized tomography.

Your procedure could last 15 to 30 minutes, depending on the type you are having. You should allow 2-3 hours for your appointment if you are having a body scan as you will be asked to drink oral contrast 1-2 hours before the start of the scan. Oral contrast enables the Radiologist to distinguish your bowels within your abdomen and pelvis. Similarly, intravenous contrast may be used to help enhance structures within your body. Provided that fluids are not restricted, you are encouraged to drink extra fluids after having a scan involving oral or IV contrast.

#### How to prepare for your scan

##### **Pregnancy**

- It is important to tell your Doctor or your Technologist if there is any chance of pregnancy before having your scan as this procedure can affect an unborn child.

##### **Allergies**

- Please inform your physician or your technologist if you are allergic to Contrast.

##### **Medications**

- Please take all prescribed medications and bring a list of all the medications you are currently taking.

##### **Diabetic Conditions**

- If you will be having IV contrast and are taking Metformin, or any of its derivatives (i.e. Avandamet, Glucophage, Glucovance, Glumetza, Glycon, Metaglip, Riomet, Janmet), depending on your renal function **you may be asked to stop taking this medication for 48-72 hours following the injection of IV contrast.** If you are asked to stop taking this medication, please arrange with your family physician or alternate physician for **evaluation of your renal function before restarting your Metformin medication.**
- It is especially important for diabetic patients to drink plenty of water following an injection of IV contrast media.
- Please bring your Glucometer to your appointment.
- Patients with diabetes do **NOT** need to refrain from solid food for 4 hours. If possible, avoid solid food for 1-2 hours.

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#### **Preparations for various scans**

##### **Head or Spine Scan**

- No preparation is required. Fluids are encouraged and you should take all your medications. You may require intravenous contrast.

##### **Neck, Chest and Extremities**

- No preparation is required. Fluids are encouraged and you should take all your medications. You may be asked to swallow oral contrast while having your chest scan. You may also require intravenous contrast.

##### **Abdomen and Pelvis CT Scan**

- You should have **no solid foods for 4 hours** before your scan but fluids are encouraged i.e. clear soup, tea, jello, coffee, juices and water. You should take all medications with water. You will likely be asked to drink 750 – 800 cc oral contrast before your scan. You may also require an injection of intravenous contrast media. Your appointment time will be 1 hour and 15 minutes before the start of your scan to allow time for the oral contrast to travel through your bowels.

##### **Cardiac and Pulmonary Vein Scans**

- You should have **no solid food for 4 hours** before your scan time unless you are a Diabetic.
  - Diabetics should have **no solid food for 2 hours** before their scan time.
- You may drink water.
- No caffeine allowed either by coffee, tea or pop for 12 hours before your scan.
- No alcohol allowed for 12 hours before your scan.
- No smoking allowed for 12 hours before your scan.
- No erectile dysfunction medications (Viagra, Cialis, etc.) should be taken for 24 hours before your scan.
- Beta Blocker medications may be prescribed to help slow your heart rate.
- Nitro-glycerine may also be used during the scan.

#### **What to bring and wear to your appointment**

You must bring your valid Health Card and a list of all your medications with you to your appointment. It is recommended that you wear comfortable clothing. Preferably shirts and pants that do not have any zippers, metal snaps or belt clips i.e. sweat shirts, track or yoga pants. You will be asked to remove all jewellery, your glasses, any hearing aids and piercings only if they interfere with your scan. Valuables should be left at home or given to a family member for safekeeping.

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#### **What happens during your scan**

Your technologist will bring you into the scan room and ask you to lie down on the CT scan table. They will then position you in the centre of the large doughnut-shaped gantry (tunnel) that holds the x-ray tube and the electronic detectors. Preliminary test images will be taken to ensure proper programming. You will then be asked to remain still on the table until the scan is complete. The Technologist will inform you if you need to briefly hold your breath at any time during this process.

#### **Contrast Media**

There are two types of Contrast Medias; **Oral Contrast** and **IV Contrast**.

##### **Oral contrast:**

This is often prescribed to patients having abdomen and pelvis scans. The oral contrast is given 1 to 1.5 hours before your scan to outline the small and large bowel.

##### **Intravenous Contrast:**

This is required for many CT procedures. The Technologist will take a brief history to ensure that it is safe for you to have the contrast. Questions such as allergies, medications and medical history will be asked and you are welcome to have family members accompany you for this part of the procedure.

In many cases recent blood work is required to evaluate your renal or kidney function before receiving IV contrast.

An intravenous catheter will be inserted into your arm in order to deliver the IV contrast. The Technologist must leave the room during your scan but he or she can see and hear you at all times. When the contrast goes through your body you may feel a warm sensation, you may get a metallic taste in you mouth and you may smell a funny smell similar to the dentist office. As the contrast passes your bladder you may feel like you need to urinate. These sensations last no longer than one minute.

#### **How long will the scan take?**

Most CT Scans will take around 15 to 30 minutes. If, during your scan, you are asked to hold your breath at all this will not last any longer than 12 to 15 seconds.

#### **What happens after the scan**

You will not have any dietary restrictions after your scan and we encourage patients to drink plenty of water, decaffeinated or non-alcoholic beverages to help your body eliminate the

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contrast mediums. The results of your scan will be forwarded on to your Physician and you should make an appointment to discuss these with him or her.

Further information is available at:

Radiologyinfo.org:

<http://www.radiologyinfo.org/en/pdf/pdf-menu2.cfm>

Iodinated Contrast Agents:

[http://radiographics.rsna.org/content/24/suppl\\_1/S3.full](http://radiographics.rsna.org/content/24/suppl_1/S3.full)

FDA Radiation Risks:

<http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/MedicalImaging/MedicalX-Rays/ucm115317.htm>

American College of Radiology:

<http://www.acr.org/Quality-Safety/Resources/Contrast-Manual>