Information for patients having a

CT Scan



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How you want to be treated.

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Better health. Best in health care.

Please arrive early to give yourself time to check in. Please bring with you photo identification and your BC Care Card (personal health number).

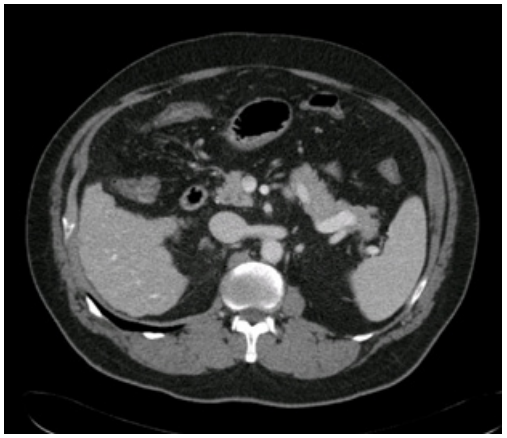
Do not bring children under the age of 12 with you unless you bring someone to care for them while you are having the test.

Our staff will speak with you in English. If you are not fluent in English, please bring an adult interpreter with you who is able to stay for the entire test.

If you are not able to keep your appointment, please call the department right away. By giving us at least 24 hours notice we are able to use your time slot for another patient. We will try to give you another date and time for your test when you call.

Please do not wear perfume, cologne, or aftershave to your appointment. Some people are allergic to fragrance ingredients and can suffer severe reactions.

What is CT (Computed Tomography)?



CT, formerly known as a CAT scan, is an advanced medical imaging procedure that uses a revolving x-ray producing tube, special electronic sensors, and powerful computers, to make slice-like, cross-sectional images.

Compared to standard x-ray equipment, these cross-sectional images are much clearer and have better detail. Modern CT allows doctors to see inside your body and diagnose a wide variety of conditions earlier and faster than ever before.

How does a CT Scanner work?

A CT scanner is a special x-ray machine in what looks like a large doughnut called the ‘gantry.’ Attached to the gantry is a ‘couch’ for you to lie on. The couch moves in and out of the gantry while a narrow set of fan shaped x-ray beams revolves around you. The x-rays pass through your body and are measured by electronic sensors on the opposite side. These sensors are revolving inside the gantry at the same time so that x-ray measurements can be made at all angles.

A computer is then used to combine the many x-ray measurements into images. These images, or slices, allow the doctor to see tissues at various levels in your body without discomfort to you.

What do CT scans show?

Some typical CT scan procedures include:

- Head scans, that show the brain and skull, are good for finding bleeding, clots, tumours, and bone injuries.
- Chest scans for the lungs and heart can show lung disease, tumours and blood clots.
- Body scans of the internal organs and blood vessels are good for finding tumours, infections, and splits or bulges in blood vessels.
- Bone and joint scans of the spine, pelvis, hips, knees, ankles, shoulders, elbows, and wrists will show breaks, arthritis, and swelling.
- Scans of blood vessels (also known as CT Angiography) throughout the body are good for finding blockages, clots, and aneurysms.
- Scans of the kidneys, ureters and bladder (also known as CT Urography) show stones and urinary system function.
- Scans of the digestive tract (also known as CT Enterography) help see the small bowel.
- Large bowel scans (also known as CT Colonography) can help find unusual growths or tumors (may not be available at all sites).
- Heart scans (also known as Cardiac CT) that show the heart chambers, vessels, and function (may not be available at all sites).
- Sometimes CT is used to guide other medical procedures (also known as Interventional CT) such as joint injections, tissue sample collections, or tube placements.

What are the benefits of CT?

CT is fast, accurate, and efficient. It has proven to be one of the best tools for studying the chest, and abdomen, and is often the preferred method for diagnosing many different cancers, blood vessel problems, and trauma.

Why do I need a CT scan?

CT is one of many tools and tests available to your doctor to help diagnose certain conditions and diseases. Your doctor considered the benefits of doing the scan versus the risks of not and has given the CT department a request for you to have a scan. Your test has been approved by a radiologist based on the information provided in your doctor's request.

How long will it take?

Your time with us will depend on the type of scan being done. Most scans require you to be in the department 30 to 60 minutes. However, some scans or procedures may be longer and staff will tell you when to prepare for these. We try hard to do scans at the appointed time, but CT scan schedules are sometimes interrupted by the need to do emergency scans. We appreciate your patience if your scan is delayed.

Who does the scan and who reads it?

A Medical Radiation Technologist is a Health Science professional that has completed a technical program and additional CT training. They will perform your scan.

A Radiologist is a doctor who has specialized in reviewing and reporting medical images, such as x-rays and CT scans. They will look closely at your images and report your exam.

Preparing for your CT scan

Instructions: Make sure you have followed all preparation instructions given to you at the time your exam was scheduled.

Food and drink: It is important to follow the individual instructions you were given at the time your exam was scheduled.

Children and family: Children and family members cannot come into the scanner room with you.

Pregnancy: **If there is any chance you may be pregnant** you must let CT staff know before the exam.

Clothing and Jewellery: Avoid wearing metal and choose loose fitting clothing. Metal will make reading your images harder and could hide important information. Avoid wearing any jewellery

Health and medication history: You may be asked for information about your health. Bring a complete list of medications that you are taking.

What happens to me during the scan?

1. Changing out of street clothes.

The technologist will explain your procedure. Depending on the scan requested, you may be asked to undress and to wear a hospital gown and/or pyjama bottoms.

2. Contrast

For some exams, we will give you contrast. Contrasts help us see areas of your body that would normally blend together. It makes structures, organs, and blood flow, easier for your doctors to see in the CT pictures that will be taken. There are different types of contrasts. Some you drink and another, sometimes called 'x-ray dye,' is injected. If you need a contrast injection, we will start an intravenous (IV) in one of your arms before the scan.

<u>Important Notes about IV Contrast Injections:</u>

*An IV injection of x-ray contrast may give you a warm, flushed feeling, strange bladder sensations (it will not happen, but, you may feel like you are wetting the bed) and/or a funny taste in your mouth. These feelings do last about one minute and the technologist will warn you when they are about to occur.

* Report any allergy like symptoms such as hives, throat tightness, or shortness of breath, to your technologist right away.

*The IV x-ray contrast is removed from your body by your kidneys and is passed in your urine. You may find that you have to go to the bathroom often after the test as you pass the dye. It is important to drink at least three large glasses of water in the two hours after your exam to help your body get rid of the contrast and protect your kidneys from possible damage.

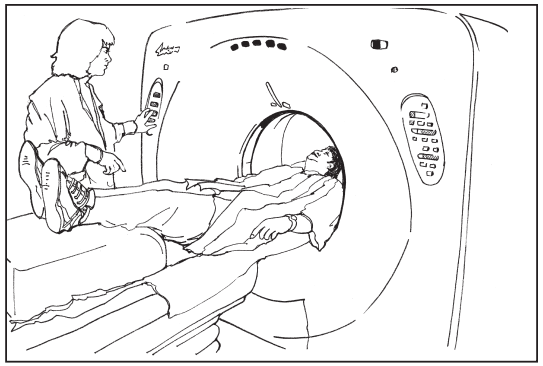
3. Positioning on the Scanner

The technologist will position you on the scanner couch and will try to make you as comfortable as possible. Cushions, pillows and safety straps may be used to help hold you in the correct position. These positioning aids also help you to keep still during the scan as moving while you are having your CT can ruin the test. It is important for you to hold still and follow all instructions during the short time it takes to do the scan. If you are asked to hold your breath during the scan, hold your breath the same way each time.

4. Scanner entry

The technologist will move the table up and into position. A positioning laser light will be used to centre you within the scanner. The technologist will then go into the control room where they can begin the scan. Technologists cannot remain in the room with you during the scan, however, they are able to see you through a glass window and there is a speaker phone system for you to talk to each other if needed.

5. Scan



The part of you that we will be scanning will move in and out of the doughnut shaped scanner. There may be times when the machine makes lots of noise; at other times the machine will be quieter – this is when the technologist is planning your scan.

When the scan is finished, the technologist will lower the couch to let you off. If you received contrast, the IV will be taken out and you may be asked to wait for 15 to 20 minutes after your scan. The technologist will let you know when it is okay to leave.

Are there any side effects?

Very rarely patients that have had a contrast injection may have signs, such as hives, of an allergic reaction during the 2 to 3 days after their scan. If this happens, contact your doctor (or the nearest emergency department for severe symptoms). Let them know when you had your CT contrast injection.

After your scan: Getting results!

After your scan, a radiologist studies your images and makes a detailed report. The doctor that ordered your test usually gets the report within one to two weeks. Once they have the report, they will compile the results of your scan with any other information they have and contact you with your results. Call your doctor if you do not have your results within a week.

Please note: If radiologists need to compare your CT with medical imaging tests done at other locations, there may be reporting delays while we wait for the other images.

Are there radiation risks?

The risk of developing cancer from a CT scan is very, very small. Radiation doses are kept as low as reasonably achievable while getting the acceptable diagnostic images for the Radiologist.

The amount of radiation you receive will depend on the CT Scan requested. Some scans use about as much radiation as you would get from 3 months of every day life exposure to natural background radiation in Vancouver. Background radiation includes what you get from the sun and naturally occurring isotopes in the earth. Other scans may use as much as what you would get naturally in 5 years.

Your doctors consider it appropriate for you to have this test, despite the small radiation risk, as there may be a greater risk to your health if you do not. Discuss any specific concerns with your doctor.

Important Notice

If you should have any questions or concerns about the information in this brochure please feel free to ask the medical staff involved. This brochure is for general information only and is not a substitute for talking to your health-care provider.

Other sources of information

www.radiologyinfo.org

Hours of Operation:

Monday:

Tuesday:

Wednesday:

Thursday:

Friday:

Saturday:

Sunday:

Contact Numbers:

Patient's Name: _____

Appointment Date: _____

Appointment Time: _____