

Computed Tomography (CT) Scan

What is a CT Scan?

A **CT scan** (sometimes called a CAT scan) is a test that uses x-rays to create clear, detailed images of body tissues. CT scans help doctors diagnose and treat many types of injuries and illnesses. A CT scan can be performed on any part of the body.

How does a CT scan work?

During a CT scan, special x-ray equipment takes many images from different angles by rotating an x-ray tube around the body. A computer then uses the information to create detailed images. The images look like thin cross-sections (“slices”) of the area being studied.

Some CT scans use a clear liquid called **contrast** (a special dye that shows up on x-rays). During the CT scan, the contrast helps to highlight blood vessels or certain types of tissue.

How long will it take?

Most CT scans usually take 15 minutes or less. If your CT includes contrast, the test may be longer, depending on the type of contrast used. Your doctor or the CT technician can tell you how much time your test will take.

How should I prepare?

You'll meet with your doctor to learn about the test and how to prepare. Here are some tips:

- **Tell your doctor about your allergies.** Your doctor especially needs to know if you have asthma or are allergic to any foods or medications. If you've had a bad reaction to contrast in the past, you may need to take medication the day before the scan.



A CT scan uses x-rays to create detailed images of body tissues. CT scans are generally painless, fast, and easy.

- **Tell your doctor about all of the medicines you take.** Include all herbs, vitamins, over-the-counter drugs (like allergy pills or aspirin), inhalers, or patches.
 - You may be prescribed medication to take a few days before your procedure.
 - Follow your doctor's instructions about your medicines, especially if you are taking **metformin** (Glucophage). You may need to stop taking it before your procedure and monitor your blood glucose more closely in the days after.
- **If directed, avoid food and drink before the test.** If contrast will be used in your CT scan, do not eat or drink anything for 2 hours before the scan.
- **Wear loose, comfortable clothing.** You may be asked to put on a gown.
- **Tell your doctor and the CT technician if you are pregnant or you may be pregnant.**

What can I expect?

- **You will be given contrast, if needed.**
 - For IV contrast, a needle is put into a vein in your wrist or arm. Contrast is injected during the test. You may feel some warmth in the area for a few minutes after it is injected.
 - For oral contrast, you will be directed to drink it an hour before the scan begins.
 - For rectal contrast, you will need an enema. Your doctor will give you instructions on how to prepare the night before the test.
- **You'll lie on an exam table.** The table will slide into the CT machine, which looks like a large box with a hole in the middle. You might see some lights. The lights are used to make sure you're in the correct position.
- **A scanner inside the machine will take a series of images.** You may hear slight buzzing, whirring, or clicking sounds. You may also move in and out of the scanner more than once. The technician will control the scanner from another room but can see you and talk with you.
- **You will need to lie still.** Movement can blur the images. The technician may ask you to hold your breath for short periods of time.

What happens after the test?

- A radiologist, a doctor who specializes in reading imaging tests, will analyze the images and send a report to your doctor.
- A report will be sent to your healthcare provider detailing what, if anything, may be of concern. It might take from 1 to 3 days to get your test results. Your doctor or nurse will usually call you with the results or discuss them with you during a follow-up appointment. If the test was done because of an emergency, the results can be made available more quickly.

Safety in imaging

At Intermountain Healthcare, our goal is to use the least amount of radiation (x-ray energy) needed to produce quality images.

- We work hard to make sure our equipment is safe and appropriate for your test.
- Our imaging teams have regular training on radiation safety.
- We communicate with doctors to help them choose imaging tests wisely.

For more information on radiation exposure, ask for a copy of the fact sheet

[Radiation Exposure in Medical Tests](#)



My follow-up appointment

Date/Time: _____

Place: _____

Doctor: _____

Where can I find more information?

Learn more about CT at:

- Radiologyinfo.org - radiologyinfo.org
- U.S. Food and Drug Administration - fda.gov
- KidsHealth.org - kidshealth.org/en/

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