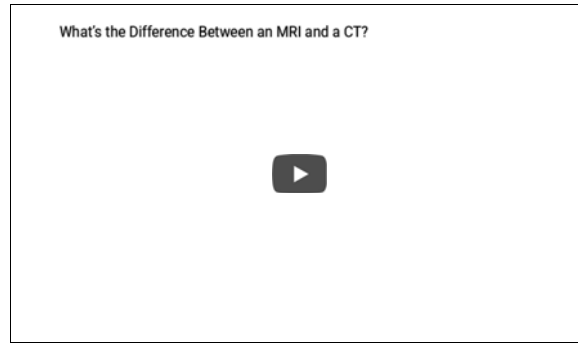


What's the Difference Between an MRI and a CT?

Your doctor says you need a scan and immediately visions of a large machine fill your head. But do you know what you're really in for when you need a CT or an MRI? It's easy to get the two confused, especially if you've never had MRI or CT imaging done before. But from your perspective, lying on the table, there is a big difference! In this video, find out what each type of scan is like including how long it takes, why it's used and how it works. That way, before you show up for your imaging appointment, you'll know just what to expect:



What is an X-ray?

X-ray (<https://www.mycdi.com/services/x-ray/>) uses a small amount of radiation that passes through the body to quickly capture a single image of your anatomy (fractures or dislocations) or disease (bone degeneration, infections or tumors). Dense objects, such as bone, block the radiation and appear white on the X-ray picture. Radiologists review the pictures and create a report with their findings to aid in diagnosis.

X-ray is good for:

- Assessing injury (see X-ray scan of the hand to the right)
Offering a low-cost, first-look exam

What is a CT/CAT Scan?

Wondering what the difference is between a CT and a CAT Scan. Nothing! They're the same thing and you can use the names interchangeably. If you need a CT scan, you're in luck, Traci says. In all her years of scanning, she's never had a single patient who couldn't handle a CT:

"Sometimes patients are a little bit uncomfortable in the positions we need them to hold but we're usually able to get the scan done so quickly it's never been a problem. Many people seem relieved that it is as easy to do as it is."

In layman's terms, CT is an X-ray machine that's hooked up to a computer. You lie flat on the table and a pencil-thin beam takes cross-sectional images of your body. Traci explains that the beam rotates around your body and takes image slices of you like a loaf of bread.

CT does use radiation to capture clear images. At CDI, we do everything we can to make sure you are getting the lowest dose of radiation possible while still getting the highest quality images (to find out how that works, [click here \(https://www.mycdi.com/blog/ct-radiation-getting-the-lowest-dose-possible/\)](https://www.mycdi.com/blog/ct-radiation-getting-the-lowest-dose-possible/)). The CT scan is so quick Traci says most patients' worries about radiation exposure quickly disappear:

"It's hard to be concerned when I explain to the patient: I'm going to ask you to hold still it's going to be 3 minutes and I'm going to pull you right back out. I think for that reason the whole concern kind of goes away."

CT is good for:

- Imaging bone, soft tissue and blood vessels at the same time
- Pinpointing issues with bony structures (injuries)
- Evaluating lung and chest issues (see lung scan image to the right)
- Detecting cancers
- Imaging patients with metal (no magnet)

What is an MRI Scan?

MRI stands for Magnetic Resonance Imaging. MRI uses a powerful magnetic field, radio frequency pulses and a computer to produce images of your organs, soft tissue, bone and internal structures. As a patient, you'll lie on a table that will slide into the machine. Traditionally the space where you would go into the MRI machine was a tube or tunnel, but these days there are many options including the [Wide-bore MRI \(https://www.mycdi.com/services/mri/\)](https://www.mycdi.com/services/mri/), the [Open MRI \(https://www.mycdi.com/blog/why-is-the-high-field-open-mri-so-good-for-claustrophobics/\)](https://www.mycdi.com/blog/why-is-the-high-field-open-mri-so-good-for-claustrophobics/) and the [Open Upright MRI \(https://www.mycdi.com/blog/what-its-like-to-get-an-open-upright-mri-exam/\)](https://www.mycdi.com/blog/what-its-like-to-get-an-open-upright-mri-exam/) machines which give you more breathing room during your exam.

Another piece of the MR equipment is the coil. The coil acts as an antenna for the radio frequency pulses and helps the machine gather the images of a particular part of your body. The coil might be a frame that snaps over your head or shoulder, it might be placed on the table before you lie down, or it could be wrapped with Velcro around the body part that's being scanned. To learn more about coils and see what they look like, [click here \(https://www.mycdi.com/blog/im-getting-an-mri-so-whats-a-coil/\)](https://www.mycdi.com/blog/im-getting-an-mri-so-whats-a-coil/). Traci explains how an MR scan of your shoulder with a coil works:

"We place your shoulder into that coil and between the radio frequency, the strong magnetic field, and the coil, which acts as an antenna, we are going to produce images of the soft tissue and the bone, with MRI."

Even if MRI is the right scan for you – you might not be right for it. If you have ever had any ~~metal in your body~~, such as a pacemaker, a spinal cord stimulator, a nerve stimulator, an aneurysm clip, an ear implant, or a stent, it might not be safe for you to have an MR scan. Some newer implants are safe to take into an MRI scanner, but you'll be asked a lot of questions when

Related Articles



The Flight and Diagnosis That Changed Julie's Life
(<https://www.mycdi.com/blog/the-flight-and-diagnosis-that-changed-julies-life/>)

Posted In: [CT \(https://www.mycdi.com/blog/category/ct/\)](https://www.mycdi.com/blog/category/ct/), [MRI \(https://www.mycdi.com/blog/category/mri/\)](https://www.mycdi.com/blog/category/mri/)



Coping with Claustrophobia? How to get an MRI Despite Your Fears.
(<https://www.mycdi.com/blog/coping-with-claustrophobia-how-to-get-an-mri-despite-your-fears/>)

Posted In: [MRI \(https://www.mycdi.com/blog/category/mri/\)](https://www.mycdi.com/blog/category/mri/)