

Pain Specialists Neurology Specialists Clinical Trials of SC

MRI Frequently Asked Questions

1. What is an MRI

MRI stands for "Magnetic Resonance Imaging". It's a radiology technique allowing physicians to see "inside you" that offers better contrast between soft tissues than x-rays or CT (Computed Tomography) scans.

2. How does it work?

Your body is composed of small particles called atoms. Most of the body is composed of hydrogen atoms that under normal circumstances spin around at random. However, when you are placed within a strong magnetic field, the hydrogen atoms line up and spin in the same direction as the magnetic field. When a radio frequency wave is transmitted through the tissue in the body, the hydrogen atoms produce a signal. These signals are measured to produce an image.

3. Why is MRI important?

This technology is important because MRI scans illustrate more clearly than ever before the difference between healthy and diseased tissue. They provide important information about the brain, spine, and joints which can lead to early detection and treatment of diseases. MRI scans have no known side effects. Consequently, your physician will be better able to determine the most appropriate treatment for you.

4. What is the difference between MRI and CT?

Both MRI and CT create cross-sectional images of the body. The main difference is that MRI uses a large magnet and radio waves to produce images, where as a CT scanner uses ionizing radiation.

5. How long will the exam take?

MRI exams take on average 25 to 30 minutes. It may take more or less time depending on what part of the body is being studied.

6. Do I really have to hold still?

Yes. An MRI exam is comprised of a series of images. Each series takes 2 to 5 minutes. Any movement during this time causes the pictures to be "blurry" and limits the radiologist's ability to interpret the study. Also, we focus the exam on a specific part of the body. If you move, the area we are focusing on may no longer be in the proper position.

7. Can you scan my entire body while I am in there?

No. The MRI scanner can scan almost any part of the body, but each scan is limited to a specific area. It can take from 30-60 minutes to scan each area.

8. Will it hurt?

No. You will not feel anything. A call button will be given to you before the exam is started. It will allow you to maintain two-way communication with the technologist at any time during the exam.

9. Any special preparation required?

No. There is no preparation required for MRI exams. Medications can be taken normally and there is no fasting required.

10. How far do I go into the scanner?

MRI units have become faster, shorter and more open with state-of-the art technology, reducing some of that confined feeling. In order to get the best pictures possible, the part of the body being studied has to be in the middle of the scanner. Thus, if you are having a brain MRI, your head will have to be in the middle of the scanner. If you are having an ankle MRI, your ankle will be in the scanner, but your head will not be. If you have severe claustrophobia, ask your doctor before your test for some medication to help you relax during the scan.

11. I have metal in my body from prior surgery. Can I have an MRI?

Most people who have metal in their body after surgery can have an MRI. For example, patients with hip and knee replacements can have an MRI after surgery, though some implanted devices require some time after surgery. Certain devices can never go into the MRI machine. Heart pacemakers/defibrillators, and some implanted pumps and nerve stimulators cannot go, or require specific conditions to go in the MRI scanner. Some brain aneurysm clips (particularly older ones) might not be safe to go into the scanner. We would need more specific information: type, where and when the clip was placed. If you have had prior surgery, you must let the technologist know prior to the scan. Also, if there is any chance that there may be metal in any part of your body from prior injury or from grinding metal, please inform the scheduler at the time of booking and technologist prior to the scan.

12. Can I have a friend or loved one inside the room with me while I'm having my scan?

Yes, someone can come in with you. But they will need to complete the MRI screening form as well to make sure they don't have a pacemaker (or other types of safety concerns).