



Musculoskeletal MRI

How to prepare for your procedure

MRI of the musculoskeletal system is an exam used to obtain detailed pictures of the body's organs and tissues. Read this handout to learn about how the exam works, how it is performed, how to prepare for the exam, what to expect during the exam, and how to get your results.

What is MRI of the musculoskeletal system?

Magnetic resonance imaging (MRI) uses radio waves and a strong magnetic field instead of X-rays to provide clear and detailed pictures of the body's organs and tissues. The parts of the musculoskeletal system that are most often imaged with MRI are the hips, knees, and shoulders. MRI has also been used to study almost every joint in the body, including the ankles, wrists, and hands. MRI allows the review of some body parts that may not be as easy to see with other methods.

How does the exam work?

MRI is a unique exam. Unlike standard X-rays, radioisotope studies, and even CT scanning, it does not rely on radiation. Instead, MRI uses radio waves and a strong magnetic field to create sharp pictures – even different types of tissue within the same organ can easily be seen. An MRI exam typically consists of 2 to 6 sequences of pictures, each lasting 2 to 15 minutes. Each sequence shows a cross-section of the body part.

How is the exam performed?

1. You will be placed on a sliding table and a device called a surface coil will be placed around the target area.
2. After moving the patient inside the MRI machine, the technologist leaves the room and the MRI sequences are performed.
3. You will be able to talk with the technologist at any time using an intercom.
4. Some patients who undergo an MRI scan in an enclosed unit may feel confined or uneasy. You may be given a sedative as needed to make you more comfortable.

5. Based on how many pictures are needed, the exam will take 30 to 60 minutes, although a very detailed study may take longer.
6. You will be asked to stay still during the exam to avoid blurring the images.
7. Some patients will require an injection of a contrast material to make certain tissues or blood vessels easier to see. A small needle connected to an intravenous (IV) line is placed in an arm or hand vein. The contrast material is injected about two-thirds of the way through the exam.
8. When the exam is over, you will be asked to wait until the pictures are reviewed for quality. More pictures will be taken as needed.

How should I prepare for the exam?

Because the strong magnetic field used for MRI will pull on any ferromagnetic metal object implanted in the body, causing possible image distortion, tell the MRI staff if you:

- Have a prosthetic hip, heart pacemaker (or artificial heart valve), implanted port, infusion catheter (brand names of Port-o-cath, Infusaport, or Lifeport), intrauterine device (IUD), or any metal plates, clips, pins, screws, or surgical staples in your body.
- Have tattoos or permanent eyeliner.
- Have a bullet or shrapnel in your body.
- Have ever worked with metal.
- Have tooth fillings or braces – these items are usually not affected by the magnetic field, but they may distort pictures of the jaw or face.
- Have drug allergies.
- Have had any surgeries.
- May be pregnant.

In most cases, surgical staples, clips, plates, pins, and screws pose no risk during MRI if they have been in place for more than 4 to 6 weeks. If there is any question of metal fragments, an X-ray may be done to detect any metal objects.

Questions?

Call 206-598-6200

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC Clinic staff are also available to help at any time.

Imaging Services
206-598-6200

Remove any items that might affect MRI pictures, including hairpins, jewelry, glasses, hearing aids, and any removable dental work.

What will I feel during the MRI exam?

MRI causes no pain, but you may feel uneasy from being closed in or from the need to remain still. You may notice a warm feeling in the target area; this is normal, but if it bothers you, tell the MRI technologist. If a contrast injection is needed, you may feel discomfort at the injection site, and you may have a cool sensation at the site during the injection. For many patients, the loud tapping or knocking noises heard at certain phases of the exam are annoying. Earplugs or headphones for music may help.

Who interprets the results and how do I get them?

A radiologist skilled in MRI will review and interpret the MRI findings. The radiologist will not discuss the results with you, but will send a report to your primary care or referring doctor, who will give you the results.

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