

MRI: Arthrogram

How to prepare and what to expect



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This handout explains how an MRI arthrogram works, how to prepare for it, what to expect during the scan, and how to get your results.

What is an MRI scan?

Magnetic resonance imaging (MRI) is a way to take pictures of your internal organs and tissues. It uses radio waves and a strong magnet to provide clear and detailed pictures. Even different types of tissue are easily seen in an MRI image.

What is an arthrogram?

An *arthrogram* is an X-ray scan of your joints. An *MRI arthrogram* includes both an arthrogram and an MRI. This helps us see more details of your joint than an MRI by itself. It will help us decide what treatment will work best for you.

During the arthrogram, we will inject *contrast* (X-ray dye) into your joint. This will be a mixture of *Isovue* (X-ray contrast) and *Gadolinium* (MRI contrast). The contrast will look black on the X-ray and white on the MRI. It will help the radiologist see inside your joint.

Your radiologist will use a *fluoroscope* to inject the contrast in exactly the right place. A fluoroscope is an X-ray machine that shows live pictures. It will show the contrast as it moves through your joint.

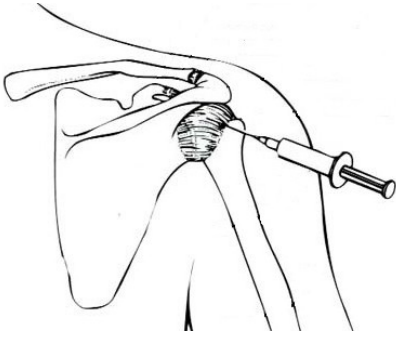
The contrast used for your scan is a mix of X-ray dye and MRI contrast. This mixture helps the radiologist see details of your joint during both scans. It also contains *lidocaine* to help ease joint pain during the MRI.

Why am I having an MRI arthrogram?

Joints such as knee, hip, and shoulder have 2 bones that fit closely together. Other tissues (*cartilage, tendons, and ligaments*) support and cushion your joints. An MRI arthrogram helps your doctor see small tears or other problems in these tissues. The results of this scan will help guide your treatment. It will also help your doctor keep track of problems in your joint.



The contrast dye will help your radiologist see inside your joint.



During the arthrogram, we will use a small needle to inject contrast into your joint space.

How is the MRI arthrogram done?

Part 1: The Arthrogram

- The scan will be done in a special room in the Radiology department.
- We will clean your skin with an antiseptic soap.
- The radiologist will then use a needle to numb the area with a local *anesthetic* (a numbing medicine).
- When the area is numb, we will place a needle into your joint space. A fluoroscope will be used to guide the needle.
- When the needle is in the correct place, we will inject the contrast. Your joint may feel “full,” or you may feel some pressure in the joint.
- We will then take X-ray images.
- The arthrogram will take about 30 minutes. We will then send you to the MRI room for part 2 of the scan.

Part 2: The MRI

- You will lie on a sliding table. The MRI technologist will help you get into position for the scan.
- We will place a device called a *surface coil* around the joint that will be scanned.
- The technologist will slide the table inside the MRI unit and then leave the room to take the MRI pictures.
- You will be able to talk with the technologist at any time through an intercom.
- We will ask you not to move while the pictures are being taken.
- Your MRI may take up to 45 minutes.
- After the scan, we will ask you to wait until we check the pictures for quality. We will take more pictures if needed.
- When your scan is over, we will remove the surface coil.

What will I feel during the scan?

- MRI does not cause pain. But, if you have pain in your joint, you may feel some discomfort from holding one position for the scan.
- Some patients may feel confined or uneasy (*claustrophobic*) when they are inside the MRI unit. Please tell the doctor who referred you for the MRI if you are claustrophobic. You may receive medicine to help you relax.

- You may notice a warm feeling in the area where the pictures are taken. This is normal. If it bothers you, please tell the technologist.
- You will hear loud tapping or knocking noises during the scan. We will provide earplugs and headphones with music to help block some of these sounds.
- When the contrast is injected during the arthrogram, you may feel discomfort or coolness at the injection site.

For Your Safety

Health Review

Please tell us if you:

- Have any problems with your liver or kidneys, or need a liver or kidney transplant
- Are on dialysis
- Have allergies to any drugs, contrast, or local anesthetics such as lidocaine or novocaine
- Have had any surgeries

MRI Screening

If you have any metal on or in your body, an MRI can harm you.

The strong MRI magnet will pull on certain metals or implants. We also need to know certain things about your health.

To prevent a delay or cancellation of your exam, please ensure your team coordinator and MRI department are aware if you have any of the following:

- Cerebral (brain) aneurysm clip
- Cochlear implant
- Prosthetic or orthopedic implants
- Implanted or external drug pump (including chemotherapy pump)
- Breast tissue expander
- Bullet or shrapnel in your body
- Neurostimulator
- Tattoos placed within 6 weeks of your MRI appointment
- Medication patches
- Continuous glucose monitor

What We Need from You

Please call us **at least 24 hours before your scan** if:

- You need to reschedule.
- You answer “yes” to any of the questions below. We may want you to prepare in special ways for your scan.
 - Are you allergic to contrast? It is also called X-ray dye, iodine contrast material, contrast agent, radiology dye, or MRI contrast material.
 - Do you have diabetes?
 - Do you take warfarin (Coumadin) or other blood thinners?
 - Are you being treated now for any kind of infection?
 - Have you ever had *claustrophobia* (feeling tense, anxious, or panicky in small, closed spaces)?

For Women:

- Do you use a diaphragm or *intrauterine device* (IUD)?
- Are you pregnant or breastfeeding? Is there any chance you could be pregnant?

On the Day of Your Scan

- Bring a list of all medicines that you are taking.
- **Remove anything that might contain metal.** This includes:
 - Makeup and nail polish
 - Hairpins
 - Jewelry
 - Glasses, hearing aids, and any removable dental work
- You will meet with the doctors before your scan.
 - Prepare any questions you might have and ask them at this time.
 - You must sign a consent form before we can begin your scan.
- You must change into a hospital gown before your scan. We will give you a gown when you arrive in the MRI department.
- *Women:* Before the scan begins, tell the technologist if there is any chance you could be pregnant.

After Your Scan

- You may leave the Radiology department right after your MRI. Do **only** light activity for the rest of the day.
- Your joints may be stiff or sore the next day from the contrast. This should get better in 1 or 2 days as your body absorbs the contrast.
- If you have a lot of pain after your scan, call the Radiology department or your referring doctor **right away**. Joint infection is rare after this scan, but if it occurs it should be treated right away.

Who interprets the results and how do I get them?

- A radiologist skilled in MRI will review and interpret your MRI images. The radiologist will not talk with you about the results. They will send a report to your primary care or referring provider. This provider will give you the results.
- You and your provider will then decide the next step, such as treatment for a problem, as needed.
- You may also read your results on your MyChart page. Results are typically available within 1 to 2 business days.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

- UWMC - Montlake Imaging Services: 206.598.6214
- Harborview Imaging Services: 206.744.3105
- UWMC - Northwest Imaging Services: 206.668.2061