

CT & MR Arthrograms

A MR or CT arthrogram is performed to evaluate the structure and function of joints such as the shoulder, elbow, wrist, hip, knee or ankle. The procedure can help determine the need for treatment, including surgery or joint replacement.

This is a two-part procedure consisting of a contrast injection into the joint, followed by an MRI or CT scan of the joint. The entire procedure will take about an hour.

Risks and Benefits

A MR or CT arthrogram is a great diagnostic imaging tool to evaluate the ligaments and tendons inside your joints. The procedure requires an injection of contrast into the joint before the CT or MR exam.

The complication rate for joint injections is very low, but not zero. As with any procedure involving a needle, there is a rare chance of infection or bleeding at the injection site. Reaction to the contrast material used during the procedure is also rare (such as itching, sneezing or rash). In some cases of advanced arthritis, there is a small chance the needle will not be able to reach the joint, and the injection would be unsuccessful.

How You Should Prepare

Arrange to bring someone to drive you home; You should not drive for 2 hours. Have someone stay with you after procedure.

If you are on blood thinners, you will need to hold the medication prior to the procedure. Contact your healthcare provider before stopping any medication to determine if it is safe for you.

If you have an infection or if you are on antibiotics, the medication course must be complete prior to the procedure, to ensure that no infection remains.

On the day of the procedure, wear comfortable clothes without metal fasteners, including zippers, buttons, and snaps.

What Happens During the Procedure

Part One - Injection

The first part of an arthrogram uses fluoroscopy – x-ray equipment that images the area in real time, and displays it on a video monitor.



Depending on the area to be injected, you will lie on an x-ray table on your stomach or back. The fluoroscopy camera will be positioned above you. The area to be injected will be cleansed with an antiseptic solution. Local anesthetic will be applied to numb the area. A small needle will be placed into the joint and contrast (i.e. x-ray dye) is injected to confirm that the needle is in the correct location. Some patients feel a slight pressure sensation or discomfort as the contrast is injected. Anesthetic or steroid preparation may also be injected into the joint, depending on the specific procedure ordered by your healthcare provider. The injection portion takes about 30 minutes.

Part Two – MRI or CT scan

In most cases, an MRI (or occasionally a CT scan) will be performed after the injection to obtain more information about the structure of the joint; this takes about 30 minutes.

After the Procedure

You should have someone stay with you for 2 hours after the procedure. Rest for the remainder of the day, and do not return to work until the next day. You may resume your normal diet and prescribed medications (resume blood thinner medication tomorrow). Avoid heavy lifting or strenuous activity for 24 hours after the procedure. Wait until the day following your procedure before showering.

You may feel tingling/numbness in your legs and feet or arms and hands; this is temporary. You may also experience soreness at the injection site; you may use an ice pack to relieve discomfort, apply once every two hours for 20 minutes at a time.