



Royal Orthopaedic Hospital NHS Foundation Trust Patient Information

# Having an MRI Arthrogram

Welcome to the Royal Orthopaedic Hospital (ROH). For further information please visit [www.roh.nhs.uk](http://www.roh.nhs.uk)

## What Is a MRI?

The MRI machine is a tunnel shaped magnet with a very high magnetic field strength. Electrical pulses are used to vary the direction and strength of the magnetic field. This causes magnetic realignment of atoms and molecules within the body. Computer processing can recognise the changes in the atoms as typical of organs and other structures within the body, building up a picture of normal parts of your body and those affected by disease.

## Important Note

**Due to the strong magnetic field some people may not be able to have a MRI scan. You will need to complete a safety questionnaire prior to your appointment. If you have any of the following implants, or if you answer YES to any of the questions you must contact us BEFORE your appointment.**

- **Heart pacemaker**
- **Artificial heart valve**
- **Metal fragments in the eye, head or body**
- **Aneurysm clips (these are metal clips inserted during some operations, especially of the blood vessels in the brain)**
- **Blood vessel stents**

## What Is a MRI Arthrogram?

An MRI arthrogram is an MRI scan performed after an injection of X-ray dye into a joint which allow the joint structures to be more visible during the scan.

## Are there any special preparations required?

You may eat and drink normally and continue to take your usual medication. You **MUST NOT DRIVE** for the remainder of the day.

Please make alternative travel arrangements to get home after.

## Arrival

- On arrival you will need to complete a safety questionnaire.
- You will be asked to remove all metallic items and you will be asked to change into a hospital gown which will be provided. You will be given a locker to store your valuables safely. You may wish to leave your jewellery at home for safe keeping. Items will have to be removed prior to your scan.
- A radiographer will double check the safety questionnaire with you and explain the MRI procedure.

## What Happens During The MRI Arthrogram?

### In the X-ray department

- A radiologist (a doctor who specialises in X-ray procedures) will explain the procedure to you and answer any questions you may have. You will be asked to sign a consent form. The injection part of your test will take approximately 30 minutes to complete.
- The injection into your affected joint is carried out under sterile conditions by the radiologist. The skin around your joint area will be cleaned with an antiseptic solution and this area will be covered with a sterile sheet. A local anaesthetic will be used to numb the area and a fine needle will then be introduced into the joint using X-rays to guide it into the correct place.
- Dye will be injected into the joint and the needle will be removed.
- Following the injection of the dye you will be taken directly to the MRI scan department to undergo an MRI scan of your joint.

### In the MRI Department

- You will be taken into the scan room where you will be asked to lie on the examination couch. The couch will then be moved into the magnet opening for the scan. It is important that you lie really still for the whole scan to ensure your pictures are of the best diagnostic quality.
- When the scanner is operating you will hear a drumming noise. As the magnetic field changes the noise varies from a light tapping, through to a pneumatic drill. The noise only lasts a few minutes...it just seems longer! We will give you some headphones to reduce the noise and play some music for you to listen to. You may bring your own CD if you wish.
- To produce the pictures the machine will need to complete a number of "sequences" of noise of up to about 5 minutes. There will also be some intervals where all you hear is the hum of electrical machinery. You can expect to be in the magnet for between 20 and 40 minutes.
- The radiographer can see you during the scan and will talk to you on the two way intercom. You will also be given an alarm to hold that you can press in a emergency if you need to.
- On some occasions it may necessary for you have a injection of a contrast agent (dye) to get additional information from the scan. If this is necessary, then the radiographer will explain this to you before proceeding.
- You may be in the MRI department for up to one hour if necessary. The length of the examination will vary depending on which area is being scanned. This can typically take from 20-60 minutes.

### Are there any risks?

There is a rare risk of infection from the injection and occasionally some people have an allergic reaction to the X-ray dye.

### Are there any side effects?

There may be a tight feeling in your joint for a short while and your joint may feel stiff. If you are employed in a particularly heavy or physical job it is advisable that you do not return to work immediately. You will be given advice by the radiologist at the time of your test.

- This can be minor, very severe and even life-threatening but the chances of this occurring are very rare - 1 in 10,000.
- There are some small risks involved with the use of X-rays but only the minimum amount of radiation is used to produce the images required. We all receive radiation naturally over our lifetimes and the dose received from an arthrogram is similar to the natural background radiation we receive from the environment over a period of 2-3 weeks. The X-rays will let the doctor place the dye into the correct place inside your joint so that the MRI arthrogram can give useful information about your condition. The benefits of having the X-ray far outweighs the tiny radiation dose you will receive.
- The MRI scanner does not use X-rays and has no known side effects.

### The Examination

- A consultant radiologist will review the scan and issue a report
- The images and results will be forwarded to the consultant in charge of your care
- Your consultant will send you an appointment to discuss the results of the scan

### Lastly - Relax

Don't worry about your scan. We are here to help. If you have any fears or doubts, don't hesitate to talk to one of our staff.

### Contact

**MRI Centre**

**0121 685 4135**

**If you are unable to keep your appointment it is important that you let us know as soon as you can. Failure to inform us may mean that you will not be sent a further appointment in the future.**