

MAGNETIC RESONANCE IMAGING (MRI)

What is MRI?

Magnetic Resonance Imaging (MRI) is a cross-sectional imaging method using a powerful magnetic field, radio waves and a computer. These produce detailed pictures inside the body to help diagnose conditions, plan treatments, and assess how effective previous treatments have been. There is no x-ray radiation involved.

What is MRI used for?

The MRI images are incredibly detailed and show bone, muscle and other tissues in the body very clearly. Images can be obtained in different directions. This capability allows clinicians to use MRI in a wide range of investigations in the body.

Are there any risks?

There are no known risks or side-effects associated with MRI and it is an extremely safe procedure for most patients. However, due to the powerful magnetic field created by the scanner (even when not in use), it may not be safe for some people with implants and devices to have an MRI. We will need to investigate the safety of these prior to your appointment. You must contact us on the number provided if:

- › you have a cardiac pacemaker or defibrillator
- › you have had a heart valve replaced or repaired
- › you have ever had surgery on your head
- › you have ever had metal in your eyes from welding or metal-work accidents (an eye x-ray may be required before your scan)
- › you have any internal or external metallic or electronic implants

- › you have had any surgery within the past six weeks
- › you have any auditory implants (such as cochlear implants)
- › you have ever swallowed a capsule camera

Precautions are taken in pregnant patients and MRI is not recommended in pregnancy – unless considered clinically necessary. Please inform staff if there is a possibility that you may be pregnant.

How should I prepare for my MR examination?

Unless you are told otherwise, no special preparation is required for your scan. It is helpful if you could come for your scan in clothing with no metal parts such as hooks, buckles, or zips. If this is not possible, you may be asked to change into a hospital gown. You will need to remove all jewellery, piercings, drug patches hearing aids and/or monitors/sensors/infusion pumps attached to your body. It also may be necessary to remove metallic denture plates. We would also request that you leave any valuable possessions at home. If you are taking any medication, please continue to do so.

You will be required to complete a safety questionnaire before your MRI examination. This may be sent out with the appointment letter or can be completed when you arrive at the department. Please let us know if you have any mobility challenges requiring additional equipment, or other special needs or requirements when making your appointment. This will ensure that we are able to offer you the highest quality service.

Do I need to fast for an MRI?

Most MRI examinations do not require fasting. Medication and meals may be taken as normal unless otherwise advised. If you do need to fast for your scan, staff will advise you when scheduling your appointment and/or we will send you information about this with your appointment letter.

What happens when I arrive?

On the day of your scan, you should arrive 15-20 minutes before your appointment time. You will check in at reception and you will be asked by the reception staff to complete a few forms. You will be brought to the MRI department by the Radiographer, who will go through the safety questionnaire with you and the examination will be explained in full. You may then be asked to change, you must also remove all jewellery, coins, wallet, watch, hair grips, mobile phone, and any other loose items from your person or pockets. Any questions you may have about the examination will be answered by one of our trained staff members at this time.

What happens during the scan?

You will be asked to lie on a table, which will be raised up and moved into the scanner. An MRI scanner looks like a large doughnut, it is open at both ends and there is constant flow of air. Loud noises are created during MRI scanning so you will be provided with ear defenders and/or ear plugs, please ensure that these are placed securely over / in your ears. It is often possible to listen to music during the scan, some of our sites can play music of your choice, so do not be afraid to ask! Additional pieces of equipment called coils, may be placed around or close to certain parts of your body to capture the correct images.

It is important that you remain very still during the examination as movement can cause the images to blur, and it might be necessary to repeat the scan, which takes more time. The Radiographer leaves the room during the scan but can always see you and will communicate via an intercom. You will be given an alarm bell to press should you require any assistance during the scan. The scan takes approximately 20 minutes but can be longer for certain examinations.



Will I need an injection?

Some MRI examinations require the need for an injection of a contrast agent or dye which shows up in your blood vessels, giving us extra information. The contrast will be given by inserting a small cannula in a vein in your arm or hand. This medication is safe but you should inform the radiographer if you suffer from any allergies, asthma or hay fever, or if you have any problems with your heart, liver, or kidneys. If you have had a contrast agent injection previously, please inform the radiographer if you experienced any problems with it

What happens after the scan?

You will be removed from the scanner and allowed to dress and retrieve your items. If contrast was administered, you will need to be monitored in the department for up to 1 hour after the injection to ensure you are feeling well before you leave.

Are there any side effects?

No. There are no restrictions on normal activity – you can eat and drink normally, drive and return to work immediately after the scan. Very rarely, some patients experience side effects after receiving contrast agent (dye). These are usually very mild such as nausea, but occasionally can result in more serious side effects such as an allergic reaction or asthma attack. All our staff are highly trained in dealing with reactions.

When will I get my results?

After the scan, the images will be reviewed by a Radiologist who will report on the findings of the scan within the appropriate timeframe. The report will be sent to your referring clinician who will then discuss the findings of the scan with you.

Please note that we will not be able to discuss your results directly with you, only your referring clinician can do this.

