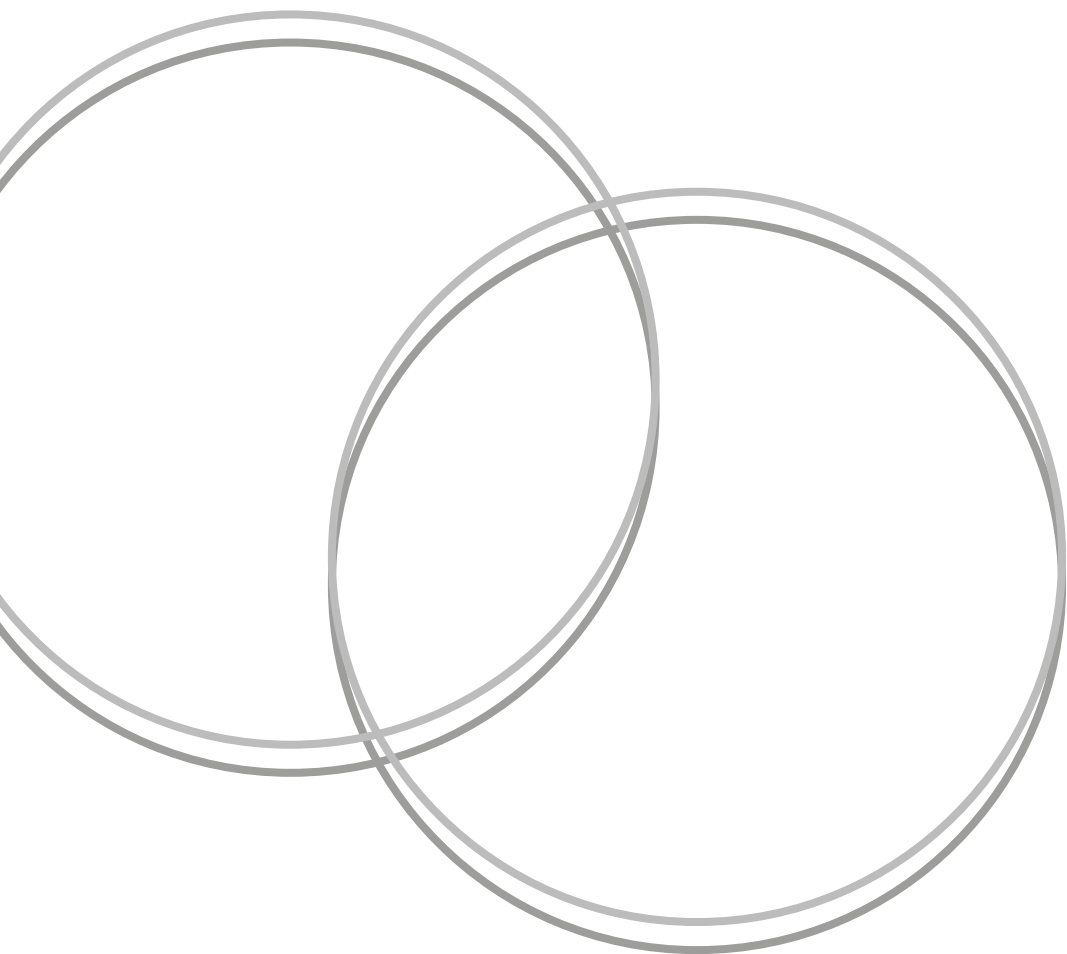




Oxford University Hospitals
NHS Foundation Trust

Having an MRI Scan

Information for patients



Magnetic Resonance Imaging

Your doctor has referred you for a magnetic resonance imaging scan (MRI).

This information leaflet tells you about the scan, how to prepare and what happens during your scan.

What is an MRI scan?

MRI scans use a strong magnetic field and radio waves to make detailed pictures of the inside of your body.

An MRI scanner is a large tube that contains powerful magnets. You lie inside the tube during the scan.

An MRI scan can be used to examine almost any part of the body, including the:

- brain and spinal cord
- bones and joints
- breasts
- heart and blood vessels
- internal organs, such as the liver, womb or prostate gland.

The results of the MRI scan can be used to help diagnose conditions, plan treatments and assess how effective previous treatment has been. During your scan the scanner will make a loud banging noise, this is normal and we will give you ear protection to dampen the noise. For some types of scan we can play you music through headphones.

What are the risks and side effects?

An MRI scan is usually a painless and safe procedure. MRI scans do not use X-rays.

Heating and thermal burns

A potential risk may include burns that occur on the skin surface causing pain, and the reaction to such a sensation is to quickly pull away. However, when burns occur during the MRI scanning process you may not be aware of a burning sensation. This is because the heating effect is happening to the fatty tissue below the skin where there are no pain sensors. This means it is not possible to feel or see the burn until it has had time to transfer through the deep tissues to the skin surface. This can take up to 24 hours after your scan has been completed.

What must you do if you develop a burn?

Burns can be very painful. The amount of pain you feel is not always related to how serious the burn is.

Up to 24 hours after your scan has been undertaken you may develop one of the following reactions:

- Red or peeling skin
- Swelling
- White or charred skin
- Blister

Keep the burn clean and do not burst any blisters that may form. If you need further assistance with treating the burn please contact your GP surgery.

In all cases please contact the MRI unit to tell us that a burn has developed on your skin surface. It is important that we are aware of any injury however minor that has been caused by the MRI examination and we can give further guidance.

MRI scans may not be recommended in certain situations. For example, if you have a metal implant fitted, such as a pacemaker or nerve stimulator, you may not be able to have an MRI scan.

Pregnancy and Breast Feeding

If you are feeding your child breastmilk, then you do not need to stop this as extremely little of the contrast gets into the breast milk and these compounds are not absorbed from the gut so will not pass to your child.

If you are pregnant, or think you might be pregnant, please tell your doctor, radiologist or radiographer before having the scan. The risks and benefits to you and your unborn baby of having an MRI scan with the contrast injection will be discussed with you.

Before the scan

On the day of your MRI scan, you should be able to eat, drink and take any medication as usual, unless you're advised otherwise.

When you arrive at the MRI department you will be greeted by a member of staff who will go through your MRI questionnaire with you. Once you have completed the questionnaire, you'll usually be asked to give your signed consent for the scan to go ahead.

As the MRI scanner produces strong magnetic fields, you will be asked to remove all metal objects from your person and will be able to put these in a locker. Please do not bring any valuables with you to your scan. If some of your clothes contain metal (such as poppers or zips) you may be asked to change into a hospital gown.



What happens during an MRI scan

When you have your scan you will need to lie flat on the table. Depending on the part of your body being scanned, you'll be moved into the scanner either head first or feet first. The radiographer controls the table through a computer and will move you slowly into the scanner, which is open at both ends. It is very important to keep as still as possible during your MRI scan so as not to blur the pictures.

The radiographer will be in regular contact with you at all times during the scan, and will always be able to see you on a television monitor and through the viewing window. You will be given a buzzer if you need to contact them at any time.

The scan lasts between 15 to 90 minutes, depending on the size of the area being scanned and how many images are taken. The radiographer can tell you approximately how long your scan will take.

The radiographer may ask you to hold your breath for a few seconds or follow other instructions during the scan. In order to help with a diagnosis, we may have to give you an injection of contrast agent (dye) as part of your scan. This is an intravenous injection (usually through a vein in your arm).

Contrast

The contrast dye makes certain tissues and blood vessels show up more clearly and in greater detail.

Sometimes the contrast agent can cause side effects, such as:

- feeling or being sick
- a skin rash
- a headache
- dizziness.

Allergy like reactions are rare and only approximately 1 in 1000 patients experience them. The most common side effects occur in a small minority of patients, but if they do occur, they will happen within minutes of the injection, when you are likely still in the MRI department.

It's also possible for contrast agent to cause tissue and organ damage in people with severe kidney disease.

If you have a history of kidney disease, you may be given a blood test to determine how well your kidneys are functioning and whether it's safe to proceed with the scan.

You should let the staff know if you have a history of allergic reactions or any blood clotting problems before having the injection.

Some examinations may also require you to make other specific eating or drinking preparations. These will be detailed in your appointment letter, if necessary.

After the scan

After the scan, you can resume normal activities immediately.

The images will be examined by the radiologist (a doctor trained in interpreting scans and X-rays), who will prepare a report on their findings. This will be sent to the clinician who referred you for the scan who will discuss the results with you.

Important information about preparing for your scan

You must not wear clothing that contains metal when you have your MRI. Please bring suitable clothes to change into, or we can give you a hospital gown to wear.

You can wear:

- a T-shirt ✓
- leggings ✓
- tracksuit bottoms ✓
- pyjamas ✓
- a nightdress ✓

You should not wear:

- a bra ✗
- jeans ✗
- a belt ✗
- hairclips ✗
- zips ✗
- jewellery / watch /
body piercing ✗
- any make-up ✗
(as this contains
small amounts of metal)

How to contact us

If you need to contact us, please refer to your appointment letter which has all the contact details.

Further information

NHS MRI Scan

www.nhs.uk

An informative video is also available on our hospital YouTube page:

<http://tinyurl.com/ouhmri>

Guidance on gadolinium-based contrast agent administration to adult patients:

Go to: www.rcr.ac.uk and search for Guidance on gadolinium-based contrast agent administration to adult patients, or click the following website link:

www.rcr.ac.uk/our-services/all-our-publications/clinical-radiology-publications/guidance-on-gadolinium-based-contrast-agent-administration-to-adult-patients

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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www.ouh.nhs.uk/information



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