Mersey and West Lancashire Teaching Hospitals
NHS Trust

Having an MRI Scan

Patient information leaflet

If you need this leaflet in a different language or accessible format please speak to a member of staff who can arrange it for you.

اگر به این بروشور به زبان دیگر یا در قالب دسترس‌پذیر نیاز دارید،
لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formacie,
proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil,
vă rog să discutați cu un membru al personalului să se ocupe
de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

إذا احتجت إلى هذه النشرة بلغة أُخرى، أو بتنسيق
يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

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Introduction

This information aims to answer your questions about having an MRI scan. It explains the benefits and risks of the procedure, as well as what you can expect when you come to the hospital. If you have any further questions, please speak to your referrer or the Radiographer performing your scan.

What is an MRI scan?

MRI stands for Magnetic Resonance Imaging. MRI scans use strong magnetic fields, gradients and radio waves to produce detailed images of your body. A Radiographer will perform this scan for you and a Radiologist (specialist imaging doctor) looks at these images and makes a report which goes to your referrer.



How should I prepare for the scan?

Before your MRI scan

For most MRI scans, you do not need to do anything to prepare for the scan. Sometimes we will advise you not to eat before your scan. Your appointment letter will tell you how long before the scan to stop.

Please contact us using the number on your appointment letter if you have any of the following; even if you have been told you can have an MRI scan:

- Pacemaker or implanted defibrillator
- Surgical clips in your head
- Hydrocephalus shunt (programmable)
- Hearing devices implanted into the head or ear (hearing aids are OK)
- Implanted electronic devices or any implant with an electronic programmer
- Implants where a magnet is used to access a port for injections (such as a gastric band)
- If you have had surgery in the last six weeks before your MRI appointment
- If you are pregnant or could be pregnant

If you are taking any medicines, please continue to take these as usual unless you have been told otherwise by your doctor.

If you need an injection of contrast (dye), we may need to check your kidney function level before the scan. One of the MRI staff will insert a small needle called a cannula into a vein in your arm or the back of your hand to give the injection of contrast (dye).

What do I need to wear?

We encourage you not to bring or wear any valuable items or jewellery. Please try to wear clothing that has no metal. However, depending on the type of scan you are having it may be required for you to change into a hospital gown.

You will be asked to remove any loose metal objects, jewellery, watches, credit cards, money or electronic devices for your scan, as well as hairclips and hair pieces.

You will need to remove diabetic monitors and metal dentures just before your scan. Dental fillings will not affect the scan. Please remove all piercings prior to attending for your scan.

Who will I see on the day?

Your scan will be performed by specially trained Radiographers, with the assistance from Assistant Practitioners, Student Radiographers and Radiology Department assistants.

What happens during an MRI scan?

- The MRI scanner looks like a ‘tunnel’ which is open at both ends.
- Depending on the body part we are looking at, you may go in head first or feet first.
- You will lie on a table that moves into the tunnel. The scanner table can be lowered and patients with mobility problems will be offered assistance.
- The radiographers cannot be with you in the room, but will be able to see you at all times and you will be given a buzzer to squeeze if you have any problems during your scan.
- The scanner is quite loud so you will be given either earplugs or headphones (depending on the body part being scanned) to protect your ears.
- We will ask you to lie very still while your images are taken to avoid blurring the images and you may be asked to hold your breath for your scan. Straps and pillows may be used to keep you still and help maintain the correct position during the examination.
- When the scan is finished, the radiographer will check the images are complete before assisting you off the scanner.

How long will it take?

This depends on which part of your body is being scanned, but it typically takes between 10 and 45 minutes. Including the preparation that may be needed, you should plan to be in the MRI Department for up to 2 hours as we may need to scan emergency patients before you. This means that your appointment could be delayed. We will let you know if this is the case.

Will I feel any pain?

You should not feel any pain during the scan itself. The most difficult part is keeping still. Try to relax as much as possible. If you find it uncomfortable to lie still, then please tell the radiographer.

Risks

What are the risks?

MRI scans do not use radiation. You will be asked to sign and complete a safety questionnaire before your scan to ensure it is safe for you to be scanned.

Some people can find MRI scans a little claustrophobic. Sometimes you may be able to listen to music depending on the body part you are having scanned and many people find that breathing techniques work well. If you wish for your eyes to be covered for the scan, feel free to bring your own material eye mask (no metal).

If you are nervous or worried about your scan, please contact the MRI Department or your referrer.

Injection of contrast (dye)

If we are scanning certain areas of your body, sometimes the doctors will ask that you have an injection of some contrast (dye). The contrast (dye) that is used during an MRI scan contains Gadolinium.

There are risk factors associated with injections of contrast (dye), which can be increased by certain conditions. We will complete a safety questionnaire to check your suitability to have the contrast (dye).

Most patients do not notice any sensations when given the injection, although a few patients will report a cold feeling in the arm during the injection which is of no significance.

Also, we sometimes may give you an injection of a muscle relaxant called Buscopan if we are looking at certain body parts. This can give us clearer images. The side effects of this may be slight blurry vision, your heart may race a little faster and a dry mouth. However, these effects will not last very long.

Extravasation

Occasionally if you are having a contrast enhanced MRI, there is a small risk that the injection of contrast can leak out of the vein and under the skin. This is called an extravasation. We find this occurs in about 1 out of 200 injections. If this does happen, further advice will be given to you by the Radiographer and Radiologist at the time of the MRI scan.

If you have ever had metal fragments in your eyes or worked with metal at high speeds it is essential you inform the department before your scan.

Table 1: Types of allergic reaction to Gadolinium Contrast

Category	Type
Mild	Headache Nausea Dizziness Sneezing Runny nose
Moderate	Itching Skin rash Swelling of the face, lips, mouth Swelling of hands, feet Low blood pressure
Severe	Breathing difficulties Respiratory arrest Cardiac arrest Nephrogenic Systemic Fibrosis (NSF)

The risk of serious allergic reaction to contrast materials that contain gadolinium is extremely rare, and Radiology Departments are well equipped to deal with them.

If you have had an allergic reaction to the MRI contrast (dye) in the past, then you must tell us prior to, or on arrival for your appointment.

It has been identified that small amounts of gadolinium contrast may remain in the body after your scan, when contrast has been given. However, there are currently no known adverse effects from these small amounts of retained gadolinium.

Pregnancy

If you are, or think you could be pregnant, please contact us prior to your appointment on the phone number in your appointment letter.

What happens after the scan?

In most cases, as soon as the scan is finished you can go home, or back to your ward if you are staying in hospital.

If you have had a contrast (dye) injection, we may ask you to wait with the cannula in for up to 20 minutes before you leave the department. This is to ensure that you feel ok and there is no sign of any allergic reaction to the MRI contrast (dye) you had been given.

You can eat and drink as normal and resume your usual activities straight after the scan. We suggest drinking extra fluids following your injection of contrast (dye), ideally equal to one cup every hour for the next six hours.

Finally

The pictures taken during the examination are studied carefully and a detailed report is produced. The results will be sent to the person who referred you for the test. They will discuss the results with you and any treatment you may need.

You may already have an appointment with the team who referred you. If not, please contact them to arrange one to discuss the results of this test.

If you have any further questions, please do not hesitate to call the Radiology Department via the number given on your appointment letter.

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There may be students and observers present during your consultation as part of their ongoing training. Please let the staff know if you do not wish any students to be present during your attendance.

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