

# MRI scan

## Radiology Department Patient Information Leaflet

### Introduction

This leaflet is for people having an MRI scan. MRI stands for magnetic resonance imaging. It gives information on the scan, and the benefits and risks of the procedure.

### What is an MRI scan?

An MRI scanner uses a strong magnetic field and radio frequency waves to produce detailed images of tissues, organs and other structures inside your body. MRI scans do not use radiation.

The MRI scanner is a hollow machine with a tube running horizontally through its middle. You will lie on a bed that slides into the tube (please see figure 1). Another part of equipment may be placed over the part of your body we are scanning to detect the signal and obtain the images we need.



Figure 1 shows an MRI scanner

## **What are the benefits of a MRI scan?**

An MRI scan can be used to create an image in very fine detail of almost any part of the body including the brain and spinal cord, bones and joints, and any internal organ.

The results of your MRI scan can be used to diagnose conditions and plan for treatments.

## **What are the risks?**

MRI is a very safe and painless procedure. It does not use ionising radiation.

Magnets are not harmful to humans but they can attract some metal objects which could be dangerous. Therefore, it is very important to follow the radiographer's instructions and to remove any loose items to avoid these potential accidents.

MRI scanners can also affect many implanted devices so it is very important to tell the radiographers about any operations you have had.

Pregnant women can have an MRI scan although this is avoided in the first trimester. It is very important that you tell us if you are, or may be, pregnant as certain precautions need to be taken. If you are not sure, we can give you a pregnancy test.

If you are given an injection of contrast dye, some people experience a slight allergic reaction to this, although this is rare. This may include itching, a rash or difficulty breathing. We will monitor you throughout the examination.

## **What are the alternatives to an MRI scan?**

An MRI scan is a very detailed examination and the doctor who has sent you for this test may feel this is the best test for you. However, there may be other tests and examinations available to you and your consultant can explain other options to you.

## **How do I prepare for the MRI scan?**

Some examinations require some diet preparation, for example, not eating for a few hours before the scan. This information will be enclosed with your appointment letter so please follow the instructions in this letter.

You should continue to take your medicines as normal.

Please fill out the questionnaire attached to your appointment letter and follow the instructions. If you answer “yes” to any of the safety questions, please ring the department.

## **What happens during the MRI scan?**

On arrival, we will ask you to change into a hospital gown, regardless of what part of your body you are having scanned. This is to ensure no objects or items of clothes containing metal are left on you before you enter the scanning room as the magnet is very powerful.

You will need to remove all jewellery, hair grips, dentures and hearing aids and keep them in the lockers provided.

A member of staff will then go through a safety questionnaire with you. MRI can cause problems with implanted devices such as pacemakers, shunts and neurotransmitters, so it is very important that you answer these questions accurately and follow instructions given to you by staff – even if you have had an MRI scan before.

We will then take you into the scanning room and ask you to lie down on the scanning table. It is important that you are comfortable as you must keep very still for your scan. The part of your body we are scanning must be in the middle of the scanner.

The scanner is very noisy so we will give you some ear protection such as headphones with music or earplugs. You may wish to bring a CD with you to listen to.

We will also give you an emergency buzzer to attract our attention during the scan. This is to be used if there is anything wrong or you would like the scan to stop.

Occasionally, we need to give you an injection that highlights certain areas on your scan. This involves inserting a small cannula (a very thin plastic tube) into your arm so we can give you a contrast dye halfway through the scan. The contrast dye helps us to see the areas better.

## **Will it hurt?**

No, the scan is not painful. Occasionally some patients feel warm during their scan, this is completely normal.

## **How long will it take?**

This varies between each body part and how many images are taken. Scans are usually between 20 minutes and an hour and a half but the radiographer performing your scan on the day will give you a more accurate time.

Although we try to keep to appointment times, occasionally, we may have to run longer scans than we anticipated which may unavoidably delay your appointment time.

## **What happens after the scan?**

You will be able to continue with your normal daily activities after your scan. There are no restrictions on you driving or returning to work.

## **When will I know the results?**

A radiologist will interpret the scans and the results will be sent to your consultant, or the GP who referred you for the test.

Your consultant will give you the results at your next outpatient clinic appointment, or they may write to you with the results.

If you were referred for the test by your GP, you will need to arrange an appointment to see them for the results.

## **Can I find out more?**

For more information about this examination you can look at the NHS Choices website:

<http://www.nhs.uk/conditions/MRI-scan/Pages/Introduction.aspx>

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Radiology Department on 01384 456111 ext. 2106 (9am to 5pm, Monday to Friday)

Russells Hall Hospital switchboard number: 01384 456111

**This leaflet can be downloaded or printed from:**

<http://dgft.nhs.uk/services-and-wards/radiology/>

If you have any feedback on this patient information leaflet, please email [dgft.patient.information@nhs.net](mailto:dgft.patient.information@nhs.net)

**This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.**

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此宣传单可提供大字版本、音频版本和其它语言版本，请拨打电话：0800 073 0510。

Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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Aceasta broșura poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru va rugăm sunați la 0800 073 0510.

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