



# Having an MRI

## What Is An 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.

- There is no need for any special preparation prior to your examination, you may continue with any medication and there are no dietary restrictions
- You may wish to leave your jewellery at home for safe keeping, items will have to be removed prior to your scan

## Important Note

**Due to the strong magnetic field some people may not be able to have a MRI scan. You will be sent a safety questionnaire with your appointment letter. It is very important to complete this 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

## Arrival

- On arrival you will need to complete a safety questionnaire if you have not already done so.
- You may be asked to change into a gown, or if you prefer you may attend for your examination in clothes which do not contain metal, such as a track suit (without zips). We will provide a locker for your belongings.
- A radiographer will double check the safety questionnaire with you and explain the MRI procedure

## What Happens During The Scan?

- You will be taken into the scan room and 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 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 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.

### The Examination

- Once your examination is complete you will be able to go home or back to work
- 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

### Known Risks

Sound dangerous? There are currently no known risks associated with having a MRI scan. There have been no reports of harm to patients from MRI over more than 20 years of use in medicine. MRI does not use any X-rays so it can be used as often as need be. The noise that the MRI scanner produces is fairly loud, but it is within the safety guidelines recommended and headphones are provided. MRI is considered to be a very safe way of producing images that can diagnose medical conditions.

### 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. If you would like to visit the department before your scan to have a look around, please contact us.

### Dignity and Respect

It is expected that staff, patients and visitors

will treat each other with dignity and respect. The hospital operates a zero tolerance policy towards acts of physical or verbal aggression and action, including prosecution where appropriate, will be taken if such behaviour is displayed.

### Car parking

Patients and visitor parking is available at gate entrance A and C, the main visitor car park is located off gate entrance C, close to the Outpatients Department. The hospital operates a pay and display system and the following charges apply:

Up to 20 minutes :	Free
Up to 2 hours:	£3.80
Up to 5 hours:	£5.00
Up to 24 hours:	£7.50
Blue Badge up to 5 hours:	£3.80
7 day pass:	£17.50
28 day pass:	£50.00

For information on how to obtain car park passes please ring 0121 685 4201 before your visit for more information.

**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.**

**MRI Centre**  
**The Royal Orthopaedic Hospital**  
**NHS Foundation Trust**  
Bristol Road South, Birmingham, B31 2AP  
Telephone: 0121 685 4135  
[www.roh.nhs.uk](http://www.roh.nhs.uk)

