

MRI INFORMATION SHEET FOR RESEARCH VOLUNTEERS

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Dear Research Volunteer

Thank you for volunteering to undergo a research magnetic resonance imaging (MRI) brain scan at the Birmingham University Imaging Centre (BUIC).

Your participation at this research centre will help benefit understanding in the areas of knowledge about the central nervous system, in neuroscience and medicine. This information sheet broadly describes the MRI procedure, and answers some common questions. If you have any further questions, please do not hesitate to contact your researcher.

You can find out more information about what we do from our web site <http://buic.bham.ac.uk>

What is MRI?

MRI is a relatively recently developed technique which combines the use of magnetic fields and radio-waves to image the body. MRI does not use *any* ionizing radiation or X-rays and there are *no* known side-effects or cumulative risks.

For your safety you will be asked to fill out an **MRI Safety Screening Questionnaire**, and to remove all metallic items before you enter the magnet room. fMRI (functional MRI) uses similar methods to conventional clinical MRI to obtain 'functional' brain images. The technique relies on indirectly identifying small changes in blood flow/oxygenation in different parts of the brain.

The MRI Scanner

As you can see from the picture opposite, the scanner is a large cylinder which has a tube (bore) running through the middle, open at both ends.

You will enter the scanner tube on a moveable bed, laid down on your back, head-first, with your lower legs remaining outside the magnet's bore.



Before You Arrive

Subjects who are concerned about feeling claustrophobic during the scan may wish to discuss this with the researcher before their arrival. However, if you are nervous, please do not worry as we will do everything we can to ensure that you are comfortable and relaxed during the scan. You will hold a call button at all times which you can press to attract our attention and an intercom system will allow you talk to the radiographer and the researcher. If you wish, a friend or relative is welcome to accompany you to the Centre. There is an area close to the scanner room for them to wait during the scanning procedure.

When You Arrive at the Imaging Centre

Prior to your scan you will be asked to fill out an **MRI Safety Screening Questionnaire**. This is necessary to ensure that it is safe for you to undergo an MRI scan. Certain participants cannot be scanned and should not enter the magnet area e.g. people with an implanted heart pacemaker.

You will be given a full explanation of the scan or study by the radiographer/researcher and there will be an opportunity for you to ask any questions that you may have. When you are ready, and agreeable to participate, you will be asked to sign a form **obtaining your consent** to undergo the research study; you may of course leave at any time without having to give a reason. Whether you choose to participate or not, will not make any difference to your normal medical care.

Next you will be asked to **remove all metallic objects** from your person - before you enter the magnet room. (Lockers are available for any valuables if required).

Starting the Scanning Procedure

Once you are set up within the scanner, comfortable, and have no further questions, the researcher and radiographer will go into the adjoining room (where the control equipment is located) and speak to you from there via a 2-way headphone / microphone communication system. There is a large window between these rooms.

We will be able to see and talk to you whilst you are within the magnet throughout the entire study. You will be given a **call button** which you may hold throughout the scan. You may talk to us via the intercom system within the magnet and you may press the call button at any time to attract our attention. You may stop the scan, come out of the magnet or leave at any time without having to give any reason.

During the Scan

During the scanning you will hear various tapping and bleeping noises (some may be quite noisy, so earplugs are supplied). This is the normal sound of the magnet taking pictures. Different types of scan sequences make different noises, so please don't be alarmed. We will talk to you after each scanning sequence to make sure you are still comfortable, and you may talk to us at any time by pressing the call button in your hand.

Please note that during the scanning period itself it is absolutely vital that you remain completely still.

Some of the time, the scanner will be silent but please try to keep as still as possible during these periods as well. When we are obtaining structural (non-functional) scans you may listen to some music through our specially designed headphones or watch a DVD. You may like to bring in your favourite CD or DVD to watch whilst we obtain these non-functional scans; this will pass the time and may help you relax.

The length of the study will vary according to your particular study type, so please check with your researcher for exact times.

Results of the Research

Please note that this centre is **not** a clinical diagnostic department, but is wholly **research** orientated. Consequently, we are **unable to give individual assessment or medical opinion on your own medical condition** (which is the responsibility of your doctor). However, your participation is invaluable and will form part of the growing knowledge and future progress of understanding the brain.

Your pictures will be analysed over several weeks/months, usually as part of a group of anonymous volunteer scans. Research papers are published by researchers at this centre to national and international journals of excellence, most of which are able to be purchased, or are sometimes free. More information can be found at our web site or from your researcher.

Unexpected findings on your scan

As you are aware, the images obtained of your brain are for specific research purposes only and are **not suitable for diagnostic opinions**. They do not form any part of your official hospital medical records. However, although the pictures are not diagnostic scans, in the unlikely event that any unusual findings are noted incidentally by the radiographer, further advice will be sought and you will be contacted at a later date to discuss any follow-up.

After the Scan

Once you have collected your belongings and spoken to the researcher/radiographer, you may leave. There are no known after-effects from being scanned in an MRI scanner.