

INFORMATION SHEET FOR MRI EXPERIMENTS

Thank you for showing interest in the study. Please read this information sheet before you decide whether you wish to take part in the magnetic resonance imaging (MRI) experiments. You can participate in the training experiments only without having to take part in the MRI experiments. Please ask if there is anything you do not understand. It is important that you understand what MRI is, why we use this method, and what the experiments will involve.

What is MRI?

MRI is a non-invasive technique which allows us to acquire images of a person's brain using a powerful magnet. We can use MRI to acquire different types of brain images. Importantly, we will use functional magnetic resonance imaging (fMRI) which is a method of acquiring images of brain activity while a person performs a task such as listening to sounds, memorizing words or watching pictures. The resulting images reveal which regions of the brain are involved in the particular task. We use this method to further our knowledge of how the brain works, by identifying regions that are active for a task or stimuli and how these regions interact with each other.

Do I have to take part?

You do not have to take part in this study. Furthermore, you may leave the study at any point without giving any reasons. If you leave, it will not affect your current or future medical care in anyway whatsoever. If you decide to take part, you will be given this information sheet to keep and be asked to sign consent forms.

What are the possible benefits of taking part?

This study itself will not benefit you. The data you provide us will improve our understanding of how the brain works.

What does the study involve? What do I have to do?

The study involves performing tasks while you are in an MRI scanner, which is located at the Newcastle Magnetic Resonance Centre (Newcastle General Hospital site). You would lie still on a bed in the scanner during the scan, and respond to auditory or visual stimuli using a button box. We may also track the movements of your eyes.

You will be scanned once before you begin the training program, once after you have completed the training program, and once to locate brain regions that show brain activity preferentially to faces. More scans may be required, but you will be informed of this. Each scan would last approximately 1-2 hours, which includes setup time and breaks. Before the study begins, you would be asked some questions about your health history to ensure that there are no reasons why you could not be scanned.

Personal information and data policy

All information which is collected about you during the course of the research would be kept strictly confidential. We will write to your General Practitioner (GP) informing them of your agreement to take part in this study.

For scientific purposes, the brain scan data that we collect may be made available to other researchers during the course of the study. You can be identified from the original structural scans of your brain. However, we will make the structural scans anonymous before sharing the data beyond the lab and MR Centre. We will also remove all identifying information from all brain scans.

What are the possible risks of taking part?

The scanner uses a powerful magnet and therefore we cannot perform the scan if you have a heart pacemaker or metal implants. There are no known side effects of being exposed to magnetic fields and there is no radiation or other dangers known to be associated with MRI. Occasionally people find lying in the scanner a little claustrophobic. The scanner is also loud, but you will have ear plugs and headphones to cancel the scanner noise. The radiographer performing the scan will communicate with you throughout the study to check that you remain comfortable. You will be provided with a hand held buzzer, which you can use to end the scan at any point.

Detection of unsuspected abnormalities on participants undergoing research MR scans at the Newcastle MR Centre

Research MR scans undertaken at the Newcastle MR Centre are for research, not clinical purposes. As such they will not be routinely examined or reported by a radiologist. However, if a previously unsuspected abnormality is detected by one of the MR Centre radiographers or other staff, then the scan will be referred to a qualified radiologist for a radiological opinion. If appropriate, the findings will be discussed with the volunteer and, with permission, their GP.

Concerns and additional information

If you have any concerns about any aspect of the way you have been approached or treated during the course of this study, the normal National Health Service complaints mechanisms should be available to you. Newcastle University has agreed to provide indemnity for this study.

The NHS is trying to improve the quality of clinical and research standards. This is being achieved through 'clinical governance'. As part of this process, this MRI study may be reviewed by a clinical governance team. Such a team would need to look at any information that you provide us with to make sure that the research was carried out in accordance with proper procedures.

If you would like further information, please contact Prof. Andrew Blamire or any member of the research team at the Newcastle Magnetic Resonance Centre, Newcastle General Hospital (telephone: 0191 248 1150).