Name of proposed volunteer .....

Address .....

.....

Postcode .....

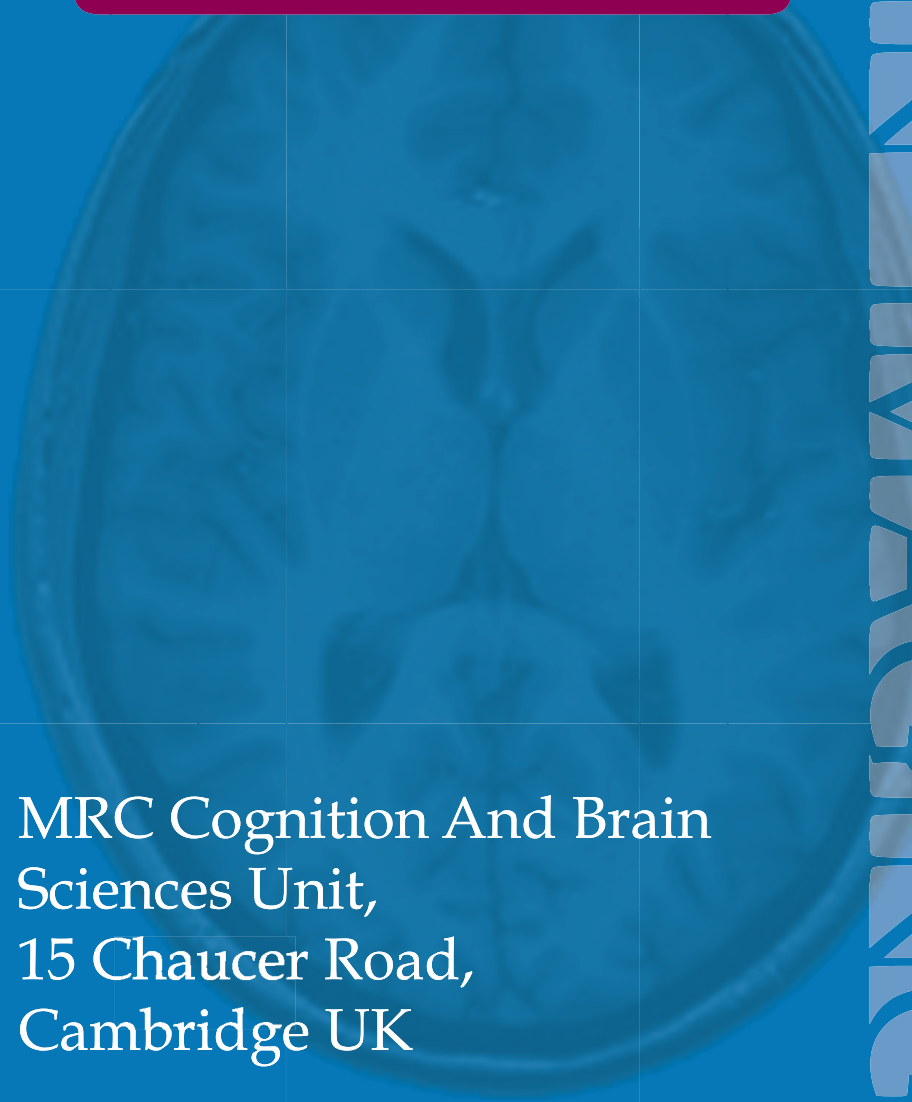
Telephone No. .....

Signature of proposed volunteer .....

Left Handed ☐ Right Handed ☐

Functional Magnetic Resonance Imaging: A Volunteer's Guide

MRC | Cognition and Brain Sciences Unit



MRC Cognition And Brain Sciences Unit,
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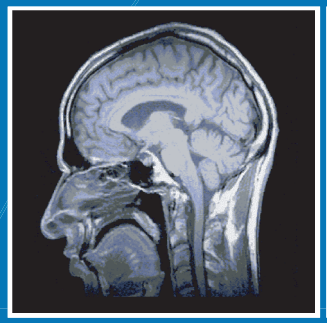
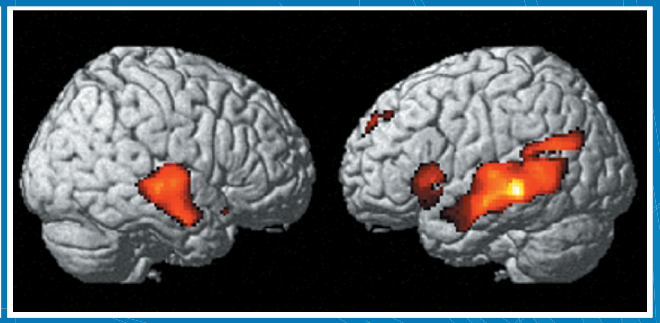
BRAIN IMAGING

What are MRI and fMRI?

MRI stands for 'Magnetic Resonance Imaging', fMRI for 'functional Magnetic Resonance Imaging'. These are techniques that enable us to examine both brain structure and the 'brain at work'. They are excellent research tools since they allow the safe and painless assessment of the relationship between brain and behaviour.



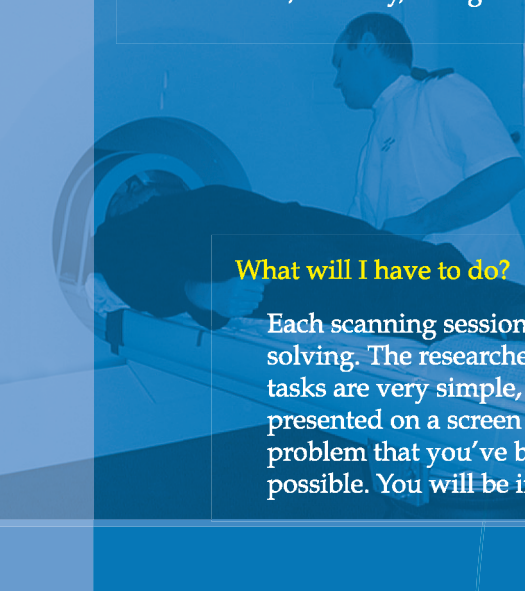
Structural MR images depict brain anatomy



Functional MR images depict brain function, in this case how the brain responds when listening to speech sounds

How does fMRI contribute to Medical Research?

fMRI is shedding light on some of the fundamental workings of the human brain. Studies that involve normal volunteers form the basis of this and are a vital part of our research program. Through such work, we are learning about normal brain function in areas such as language, vision, movement, memory, thought and emotion.



How long will it take?

between 1 & 2 hours in total. The first thirty minutes or so will be spent setting up the equipment and making sure that you are in a comfortable position on the scanner bed. The actual scanning session lasts about one hour.

Why volunteer?

MRI is a safe and painless method of examining the brain at work. There are no needles and there is no ionizing radiation. When you volunteer to have an MRI scan you leave with the knowledge that the experience has contributed to basic scientific research. In addition, we will reimburse you for your time (£10.00 per hour) and travel, and give you a picture of your brain as a token of our thanks.

Who CANNOT have an MRI scan?

We scan volunteers, both men and women, who are over the age of 18. Because of the use of strong magnetic fields, we do not scan people who have implants containing metal such as cardiac pacemakers, metal pins, screws, or plates, or permanent eyelining, or who have spent significant amounts of time working with metal (and may have picked up metal splinters). We also don't scan pregnant women. In addition, because the central 'tunnel' of the scanner is quite small, people who are claustrophobic (uncomfortable in confined spaces) may find the experience unpleasant. Finally, the MR machine is noisy. However, volunteers are given earplugs and ear defenders to wear which dampen the noise considerably. Despite these drawbacks, many of our volunteers find being scanned to be an engaging experience, and have chosen to participate in more than one imaging study.

What will I have to do?

Each scanning session will be part of a specific study relating to speech, language, emotion, vision, memory or problem solving. The researcher will explain in detail exactly what tasks you will have to carry out whilst being scanned. Most of the tasks are very simple, such as looking at pictures, thinking about what you are viewing, moving fingers etc. Images may be presented on a screen within the scanner or you may have to make a keypress on a button box to signal your answer to a problem that you've been presented with. During the scanning session, you will be asked to keep your head as still as possible. You will be in constant contact with a radiographer and the researcher, who will ensure that you are comfortable.