MEG Pre-Scan Information

WHAT IS MEG?
Magnetoencephalography (MEG) is a safe, non-invasive and entirely passive human brain imaging technique. The MEG scanner measures the very small magnetic fields outside the head - these arise naturally from electrical activity within the brain.

IS THERE ANY PREPARATION?
The MEG instrument is extremely sensitive to metallic objects entering the shielded room. Hence, you could assist us by:

- wearing clothing that does not have metal fastenings;
- not wearing any jewellery, and
- removing all eye make-up (as this can interfere with scans of the head).

You will also be required to complete a MEG safety questionnaire before your scan.

CAN ANYONE HAVE A MEG SCAN?
No. There are some pre-conditions which can damage the MEG scanner. The MEG scanner is extremely sensitive to the presence of metallic objects, either permanently or temporarily carried in or near to your body. These conditions will be rigorously screened for during your pre-assessment for MEG scanning. Having metallic objects on your person, although not a danger to you, may cause damage to our equipment.

IS AN MEG SCAN SAFE?
MEG scanning has been in use as a medical imaging and research tool for many years and is commonly regarded by clinicians and scientists as a safe procedure. It does not employ ionising radiation (such as x-rays) and hence does not pose an additional cancer risk. The researchers on duty will answer any queries you might have on the day, or if in doubt, please call the chief investigator.

WHAT WILL HAPPEN WHEN I ARRIVE?
The researcher will greet you at the MEG unit waiting room and reception, explain the procedure and ask you questions about previous surgery you may have had regarding implanted metal in your body. You will be asked to leave your valuables (coins, keys, watch, jewellery, credit cards, mobile phones, pagers etc.) in a locker. The researcher will guide you to the magnetically shielded room housing the MEG scanner. Some equipment may be placed around you whilst scanning; this may include headphones and/or a stimulus screen.

THE SCANNING PROCESS
When we are taking the pictures, we will ask you to keep as still as possible. Usually there will be about 4 or 5 different scans, lasting for 2-8 minutes each; and for most studies you will be in the scanner for about 60 minutes. For some studies you are welcome to bring along your favourite CD or cassette to listen to, during your scan, please ask your researcher.

WHAT WILL HAPPEN AFTER THE SCAN?
You can leave immediately after your scan. The images that have been taken will be used to address the research question for the study you have agreed to take part in.
MEG Pre-Scan Safety Questionnaire

This questionnaire is designed to screen for various conditions in a potential MEG participant. It is VERY important that you complete it as honestly and comprehensively as possible – please ask if you have any questions. This form is to be completed under the supervision of a staff member PRIOR to entering the MEG room. Note that answering YES to any of the questions does not automatically disqualify a person from having an MEG scan.

Please answer YES or NO to the following: Please circle

Have you ever done or been near welding? ................................................................. YES / NO
Have you ever been injured by a piece of metal that has not been removed (bullet/shrapnel)? .............. YES / NO
Do you know of any metal that has been implanted into your eye, skin or body at anytime? .............. YES / NO
Do you have any of the following:

- Aneurysm clip (on a blood vessel) ................................................................. YES / NO
- Ocular / eye implant ........................................................................................... YES / NO
- Cochlear / ear implant ....................................................................................... YES / NO
- Hearing aid (removable) .................................................................................... YES / NO
- Cardiac pacemaker/pacing wires or implanted cardioverter defibrillator .............. YES / NO
- Artificial heart valves .......................................................................................... YES / NO
- Other implanted electronics devise (bone growth, neurostimulator) ................. YES / NO
- Implanted infusion or drug pump ....................................................................... YES / NO
- Hip replacement or artificial joint or artificial limb .............................................. YES / NO
- Pin, plate or screw attached to a bone ................................................................. YES / NO
- Implanted coil, filter, shunt or stent ..................................................................... YES / NO
- IUD, diaphragm, or pessary .................................................................................. YES / NO
- Non-removable piercings or jewellry ................................................................. YES / NO
- Permanent make up ............................................................................................. YES / NO
- Medication patches (Nicotine, Nitroglycerine) .................................................... YES / NO
- Dental bridge; partial plates; permanent retainer; temporary spacers ................. YES / NO
- Crowns on teeth; posts in teeth ............................................................................. YES / NO
- Dental implants ..................................................................................................... YES / NO

Have you ever had a surgical operation? .............................................................. YES / NO
If yes, please provide details of body area (head, arm) and medical condition

Approximately how many fillings do you have? ..............................................

Do you have any allergies? ................................................................. YES/NO
If yes, details: ........................................................................................................

Consent

I have read the above information and am aware of the processes involved in an MEG examination. I have been provided with the opportunity to have any questions answered and I therefore give my consent to an MEG scan. I confirm that the questions have been answered to the best of my knowledge.

STUDY/PROJECT NAME: .............................................................................................

PARTICIPANTS NAME............................................................................................

SIGNATURE: ............................................................................................................DATE: ....../......./.......
MEG Personal Preparation
Preparing for your MEG Scan

On the day of your MEG scan, we request that you take the following steps:

1) Please empty your pockets of all magnetic items including wallet, bank cards and coins. You will also need to remove any jewellery you have on.

2) Do not wear make up.

3) (If applicable) Do not wear an underwire bra (sports bras that have no underwire are fine).

4) If you wear eye glasses you will not be able to wear them in the MEG scanner. Immediately prior to entering the MEG we can provide you with MEG compatible glasses. If you bring your prescription or know your prescription this will help us to give you the best temporary glasses for your scan. Contact lenses are fine for MEG scans.