

(f)MRI Research Information







1 INTRODUCTION

You are about to participate in an (functional) magnetic resonance imaging (MRI) research project. The researcher has probably already explained the principles to you briefly. This brochure informs you about the details of the research and issues to consider beforehand. The general procedure for such research will be described here. We kindly request you to read through all of the information in this brochure. If you have questions afterwards, you may raise them asking the researcher involved.

1.1 CONDITIONS

To be able to participate in an (f)MRI research project a few conditions need to be satisfied. In the following cases, an MRI scan is not possible:

- o If you have undergone an operation to your head or brain.
- o If you have implanted electronic devices, like a pacemaker.
- o If you have an insulin pump under your skin.
- o If you suffer from epilepsy.
- o If you suffer from claustrophobia.
- o If you have cardiological irregularities.
- o If there is a chance that you might be pregnant.
- If, apart from teeth fillings and connectors, there are other metal parts in your body, like:
 - o protheses
 - o implants
 - o clips on blood vessels
 - o metal parts in the eye
 - o spiral
 - o metal braces
 - o other metal objects

In the following cases the researcher first needs to establish, in collaboration with you, whether it would be possible to have an MRI scan.

- o If you have a tattoo (also permanent make-up).
- If you have one or several piercings that cannot be removed.
- o If you have a metal wire behind your teeth.

In the next section, "Preparation", other factors which need to be considered before you can participate in the research project are described. In case you still have questions about the issues described above, please do not hesitate and contact your researcher. Please also inform the researcher well ahead of time in case you are not able to participate in the research because of the factors mentioned above.



2 PREPARATION

One does not need special preparation when having an (f)MRI scan. It is recommended to wear comfortable clothing without metal buttons or zips. Also we kindly request you not to use eye make-up, because some types contain metal parts. Because of the strong magnetic field all metal objects need to be stored in a locker, like watches, jewelry, coins, keys, pens, (metal) glasses, false teeth/dentures, hearing devices, hairpins/ribbons, bras with underwire and belts. This is also the case for bank passes, credit cards and mobile phones, which are deregulated by the magnetic field. Hard and soft lenses can be worn during scanning, but it is possible that your eyes will feel dry. Therefore, use enough lens-fluid. If necessary, we have special glasses to replace your own that can be used in the scanner (with a correction capacity of -0,5 to 6,0). The space in our lab is limited. Therefore we kindly ask you to bring maximally one person for company.

2.1 WHAT IS MRI?

The abbreviation "MRI" stands for "<u>Magnetic Resonance Imaging</u>". It is a research method where images of the inside of the human body can be made from outside. This is performed using a magnetic field and radio waves. No X-rays or ionizing rays are involved. The scan is completely painless and not damaging to your health.

2.2 PROCEDURE

When you arrive, you will be seated in a waiting room until the researcher comes to get you for the scan session. The researcher will then ask you for a declaration of your permission and to fill out and sign a questionnaire. In case you are entitled to reimbursement, it is also important to provide your sofi-number (social service identity number). After you have filled out the forms, the researcher will explain the experiment to you. Then you will lie down on the research bed that will be moved into the scanner's tube which has a diameter of about 60 cm. During the scan your body will be (partly) inside of the tube. When you are in the scanner, a few images will be acquired. The time required to acquire the scans can vary between a few seconds and about 45 minutes. While scanning, the scanner regularly produces a knocking or ticking sound. This is normal and is required for producing the images. If necessary, you can alarm the researcher by squeezing a ball. During the scans, the researcher will be outside the scanner room, but will be observing you at all time to make sure you are fine. He or she will provide you directions during the research. For the quality of the images it is important to stay as still as possible in the scanner during the scans. The MRI research will last between 30 and 120 minutes, depending of the type of research.



2.3 SAFETY

As far as known, the magnetic field and radio waves being used in MRI do not result in harmful side effects. Millions of patients underwent MRI research thus-far and this type of research has proved to be quite safe. This is because in MRI harmless radio waves and magnetism are used instead of ionizing x-rays.

2.4 COMFORT

There are a few aspects that might make the MRI research less comfortable for some participants, namely:

<u>Pain:</u> The research itself is not painful, but because you are lying on your back for about 2 hours, this can feel uncomfortable for some patients. Before you are moved in the scanner, the researcher first will secure your head. Also he or she will provide you with tools to response to the stimuli, like a button box, headphones and a mirror in order to see the screen. During this phase it is important that you indicate whether you are lying comfortably.

<u>Sound:</u> The MRI scanner will make series of loud knocking, ticking sounds during the research. This sound is perceived by many people as disturbing, therefore you will receive earplugs and we add padding to the side of your ears.

<u>Claustrophobia</u>: a few patients experience anxiousness, although you are not completely moved into the scanner. In case you anticipate you might experience this feeling, you can indicate this in advance.

2.5 LOCATION

The research will take place at Scannexus, located at Oxfordlaan 55 in Maastricht.

Accessibility

<u>By car:</u> The researcher can arrange a parking space on the Oxfordlaan 55/70 terrain. When you announce your presence at the intercom at the entrance and explain that you are here because of a MRI scan for a research project, you will be allowed to enter.

<u>By public transport</u>: Each quarter of an hour a train is departing from station Maastricht to Maastricht-Randwijck (duration: 3 minutes). When crossing the road from the station, you are in front of the building of Universiteitssingel. Walk past this building until you see Oxfordlaan on your right side. Scannexus is located on the opposite side of this road. The bus lines 1, 3, 4 and 9 are also heading for Randwijck. Get out at the bus stop "azM / Maastricht UMC+". From here Scannexus is a 5 minute walk. Turn right in front of the main entrance until you see Oxfordlaan on your left. The building is located on the opposite side of this street.



Directions

<u>A2/E25 from the North:</u> On the A2 motorway, follow the signs 'Liège, Maastricht Zuid'. On exiting the tunnel, take exit 55 towards 'Maastricht Zuid / Academisch Ziekenhuis'. On the exit turn right towards the hospital. Then at the first set of traffic lights, turn right again onto the P. Debyelaan. Then again the first right exit onto the Oxfordlaan. Scannexus will be on the end of the street on the right.

<u>A2/E25 from the South:</u> On the A2 motorway, take exit 56 towards 'Gronsveld, MECC, Academisch Ziekenhuis Maastricht'. On the exit turn left onto the Köbbesweg. After 920 meter turn right onto the Molensingel. At the traffic lights go straight ahead onto the P. Debyelaan. Then the first right onto the Oxfordlaan. Scanenxus will be on the end of the street on the right.



Delay

In case you are not able to appear at the agreed time due to circumstances, there is a chance we might need to postpone the appointment. Therefore, we advise you to take possible traffic jams in and around Maastricht into account. In case you will not be able to attend, you can contact the researcher or call +31-43-3885668.