

INFORMATION FOR FIRST-TIME FMRI SUBJECTS

Is it safe?

The vast majority of MRI scans are performed without incident; there is no effect on biological tissue. However, working in the presence of a strong magnetic field requires constant vigilance to ensure that no ferromagnetic objects enter the scanner room, as they will be pulled toward the center of the bore with great force. Also, metal that is implanted in your body (i.e. pacemakers, aneurysm clips) may malfunction within the magnetic field. You must fully comply with all safety and screening procedures.

The day of the scan:

- If applicable, remember to wear contact lenses instead of glasses.
- Do not drink excessive amounts of liquid, especially caffeine (a diuretic -- an fMRI session seems much longer with a full bladder!).
- Do not wear any shirts with metal around the head (e.g., pullovers with zippers). Metal buttons and zippers on pants are usually okay.
- Do not use any hairclips and be prepared to remove jewelry.
- For women, if possible, do not wear an underwire bra (the metal can throw off the magnetic field). Sports bras are usually good and we have hospital gowns to change into if necessary. The clasps on the back of a regular bra are not a problem, but avoid wearing bras that have metal parts on the straps.
- Avoid wearing mascara (can contain metal flakes), hair gel (can throw off magnet signal) and arriving with wet hair.
- Make sure you know where you are going to meet the experimenter and what time you are expected to show up. Map and directions can be provided, just ask.
- If anything comes up such that you cannot make your scheduled time, notify the experimenter as soon as possible. Scan time costs us **\$500/hour** regardless of whether or not the subject shows up.

While in the magnet:

- If you notice anything vaguely uncomfortable before you get rolled into the magnet, tell the experimenter. Things that are slightly uncomfortable at the start become excruciating by the end. Once you are in place, you will maintain that exact position for almost 2 hours.
- As the bed is moving into the center of the bore, moving through the magnetic field may play tricks on your vestibular system and some people feel a bit dizzy. This is normal, and will subside shortly after the bed stops moving.
- Try not to change head or body position during a scan (while the magnet is beeping). If the head moves, it creates artifacts that are usually difficult if not impossible to fix. The position of body parts in the magnetic field distorts it. So if you cross your legs, scratch your head, open your mouth, yawn (inhale deeply), or shift your posture, it can lead to artifacts even if your brain doesn't move. We try to keep runs as short as possible so that you can stay in the same position the whole time.

- Swallowing can lead to head motion artifacts. If you can avoid swallowing during a scan, the data quality will be better. If trying not to swallow makes you gag or swallow suddenly, then it's best to just swallow normally.
- Between scans (when the magnet is not beeping), you can swallow freely, however you still can not change your body position or scratch, etc. If you absolutely can't stand it, then it is better to do those things between scans, but is highly discouraged. If it happens frequently, the session will be a waste. Millimeters matter; do your best not to do anything that will move your head from its original position.
- Try to stay relaxed throughout the session. If you tense up at the beginning of a scan, your head can drift as you settle down.
- If you notice anything weird with the stimuli (e.g., they're upside down or you can't see the display or the screen saver comes on partway through a scan) or have problems with the task (e.g., make mistakes, fall asleep), be sure to tell the experimenter after the scan in which it happened.
- You will be given a squeeze ball in case you need to stop the scan midway. You can use this if something goes wrong with the stimuli or if you need to stop immediately.