

Laboratory rules for the 3 Tesla MRI at the Leibniz Institute for Neurobiology

All persons wishing to carry out or accompany measurements at the 3 Tesla MRI are obliged to have taken part in an annual safety training (<https://moodle.uni-due.de/course/view.php?id=12066>) and been trained by specialist employees about the peculiarities of the measurement process and what to do in an emergency. This must be documented by signature in the device log.

The general rules of conduct explained in the safety training apply:

- Ferromagnetic items of any description must not be brought into the MRI room. In exceptional cases, slightly magnetic measuring devices (e.g. voltmeter) can be used by experts if there is no study participant or other person in the hazard area.
- Every study participant must complete and sign a consent form for participating in MRI studies before being scanned.
- The introductory interview must cover previous surgery to rule out that there is any metallic object in the body. In case of doubt (e.g. gall/appendix, knee surgery), the relevant surgical report must be requested and presented to the study supervisor nominated by the CNI in good time **in advance** (see safety instructions). The person carrying out the measurement must cancel the measurement if there is any remaining doubt.
- All study participants must put on ear defenders before all measurements.
- The following personnel requirements apply to all measurements on study participants:
 - At least 2 persons must be present at all times.
 - Both persons must be capable of entering the MRI room at any time (remove all metal). The person carrying out the measurement and the support person must enter the MRI room **before** the study participant. Other persons arriving later may only enter the MRI room **after** the study participant has left.
 - At least one of the two persons or a third person must be able to communicate fluently with the relevant study participant.
 - A German-speaking person must be directly on-call in order to inform the emergency doctor if required.
- Before entering the MRI room, the study participant must be asked once again whether they have removed all objects about their person (jewellery, watches, glasses, braces/false teeth).

Before the examination, the use of the MRI scanner must be entered in the eGroupWare calendar with a link to the specific study.

All measurements must be documented in a study-specific lab book in the course of the examination.

All data is stored on storage devices of the LIN. Phantom measurements are only backed up on specific request. Data stored on the acquisition PCs are deleted at irregular intervals without prior notice when storage space gets low.

Structural changes or new electrical installations in the MRI room must be discussed and agreed at an organisational meeting. The hardware or software of the MRI scanner's control computer must not be changed. Only experts are authorised to apply patches, and these must be documented in the device log.

Software installations on the stimulus computer and changes to hardware and software must be approved by the CNI staff running the 3 Tesla-Lab.

The use of USB sticks and external hard disks for data transfer is prohibited. Data on laboratory computers may only be transferred via a LIN-internal Nextcloud folder.