

Centre for Neuroscience Studies

fMRI Facility

Standard Operating Procedure #10

Exiting A Person From The Magnet In An Emergency

1. Introduction

- i. Research involving Magnetic Resonance Imaging (MRI) at high magnetic field strengths present unique hazards to both research subjects and individuals working within and around the MRI system. Consequently, the potential for serious personal injury is present due to the sheer size and strength of the static magnetic field along with the flexibility of the research system and associated peripheral hardware.
- ii. The static magnetic field in the 3T MRI facility is always present. It is important that all those entering the facility be aware of the presence of the field, as it cannot be detected by our person in any way, i.e. magnetic fields cannot be felt, seen or smelled.
- iii. As a result of the potential for serious injury, access to the 3T MRI Facility is restricted, and requires permission. See SOP# 01 "Authorization for Access to the 3T MRI Facility", and SOP# 02 "3T MRI Facility Visitor Approval Policy."
- iv. Working within and around the high field MRI requires in depth training on safety and Standard Operating Procedures, and documented proof of other necessary training. See SOP# 03 "Safety and Operator Training Procedures."
- v. It is imperative that all personnel who are within and around the 3T MRI facility always keep in mind the potential safety risks, and act in accordance with the guidelines set out in the Standard Operating Procedures.

2. Exiting A Person From the Magnet in an Emergency

i. If the power supply and/or motorized drive are intact

- a. Press the "Home Position" button on the front face of the magnet to the right or left of the bore

ii. In the case of a power failure or defective motorized drive

- a. Activate the emergency table release located under the support frame of the patient table
- b. Pull the table top manually out of the magnet bore. If you do not activate the emergency table release you will still be able to move the table manually, but it will require more force.

3. Undocking the table to remove a non-ambulatory person from the magnet room

- i. Withdraw the patient table from the magnet as described above

- ii. Dock the trolley to the patient table using the following procedure:
 - a. Move the trolley under the table toward the carrier plate until the docking rods slide into the guide rail of the supporting frame
 - b. Slide the trolley forward in the direction of the magnet until the docking rods lock into position
 - c. Lock the brakes at the foot end of the table
 - d. The trolley is now fully docked
 - e. Press the "Lower" button on the remote control and keep it pressed until the patient tabletop rests on the mounting device of the trolley
 - f. Move to the left side of the trolley and firmly step on the interlocking/unlocking pedal until it audibly locks into the lower position
 - g. The table display of the MR system will show a request to disconnect the coils and other components (squeeze ball, vacuum cushion, headphones).
 - h. Disconnect all coil connectors and hoses and close the protective covers for the coil sockets
 - i. Press the "Speed" key on the control unit of the patient table to acknowledge the request to disconnect coils, hoses etc.
 - j. Press the "Lower" key or the Table Movement Down/Outward until the carrier plate has been lowered completely
 - k. The patient table is released from the carrier plate and remains on the trolley. The table and trolley form the transport unit that can be wheeled out of the magnet room