



MCW MRI Safety Standard Operating Procedures

Study Personnel Responsibility

Category: Magnetic Resonance Imaging (MRI) Safety

Procedure #: MR.SOP. 013

Applies to: Investigators, study personnel, Medical College of Wisconsin (MCW) staff

PURPOSE:

The purpose of clarifying study personnel responsibility is to ensure that a plan is in place to manage the research subject and to be prepared for possible emergency or urgent situations.

DEFINITIONS:

Accompanying parents, spouses, or others: Individuals who, after thorough safety screening would be allowed to enter the magnetic environment to provide company and or comfort for the research subject.

Principal Investigator:

A Principal Investigator (PI) is the individual who is ultimately responsible for the procedures, study team personnel and research subjects involved in the study. The PI has an IRB or IACUC approved protocol and utilizes one or more of the MRI scanners at MCW for research purposes.

Study Personnel:

Study personnel are individuals including a student, staff member or laboratory assistant for whom the PI of the study is responsible, and who are at the MR scanner site during the study or may be recruiting subjects for the study.

Research Subject:

A research subject is a human or animal participant who is placed into the bore of the MRI scanner for research purposes.

Magnetic Environment: The area where the magnetic field is greater than 5 gauss resulting in the potential for objects to become missiles or projectiles as they are attracted into the magnetic field of the scanner. Individuals who may have cardiac pacemakers or other implants and devices may be at risk to enter the magnetic environment. The magnetic field is always present and is three dimensional around the scanner.

MRI: Magnetic Resonance Imaging which uses a strong static or main magnetic field, radio frequency pulses and time varying magnetic fields or gradients to produce anatomic images, spectroscopy, angiography, and functional data (fMRI).

PROCEDURES:

- A. The PI must have an approved IRB or IACUC protocol for the study, before study personnel are allowed to schedule Medical College MRI scanner time. (See *General Scanner Usage*, MR.SOP.012)
- B. Study personnel are responsible to obtain informed consent from the research subject.
- C. Study personnel are responsible for the care and any necessary treatment of the research subject.
- D. Study personnel should screen the research subject or other individuals, including accompanying parents or spouses, for safety risks, prior to entering the magnet room.
- E. Study personnel or the MRI research Scanner Operator should instruct the research subject in proper use of the emergency squeeze ball.
- F. Study personnel should have a plan in place from the PI for managing an illness or injury of the research subject.
- G. Study personnel are responsible for physiological monitoring if utilized, during the procedure.
- H. Study personnel are responsible to design and implement any task or activity used during the procedure.
- I. If there is a problem with specific equipment, study personnel must report to the MRI research Scanner Operator.
- J. Study personnel along with the MRI research Scanner Operator, will ensure that coils, shim files, configuration files, and all computers are returned to standard usage or as directed for each specific system.
- K. Study personnel along with the MRI research Scanner Operator, will ensure that all accessories and / or devices are to be turned off properly, cords and cables wound, and returned to their designated storage area.
- L. Study personnel should report to the MRI research Scanner Operator if a supply item is becoming low in quantity especially if the last, or near last of an item is used.
 1. A research subject or individual who becomes ill or injured must be removed immediately, from the magnetic environment by study personnel and or scanner operator.
 2. Emergency procedures and contact information are posted at each scanner.
 3. If an individual or research subject becomes ill or injured the institutional policies for the specific scanner location must be followed as posted.
 4. The Principal Investigator must report any emergency incident to the MRI Safety Committee.
 5. If there is a problem with specific equipment, study personnel must report to the MRI research Scanner Operator so that the problem is documented in the daily log, as to what the problem was or what went wrong during the study so that corrections and / or repairs can be made.
 6. Post scanning cleaning should follow the *Infection and Allergy Control*, MR.SOP.06.
 7. Upon completion of the MRI study, study personnel along with the scanner operator must ensure that all equipment is restored to normal operation.

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