

# Research MRI Safety Committee Standard

## EQUIPMENT AND MATERIALS

Category: Magnetic Resonance Imaging (MRI)

Procedure #: MR.SOP.02

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

## PURPOSE:

MR-related injuries and the few fatalities that have occurred at other institutions were the apparent result of failure to follow safety policies or the use of inappropriate or outdated information. The Medical College of Wisconsin has maintained safe MRI scanning procedures in research studies using MRI for more than 30 years. The purpose of this document is to ensure objects are safe to operate within and or be brought into the magnetic environment.

## DEFINITIONS:

Equipment: Machines that may be used for MRI studies to monitor physiological processes or provide the stimulus or physical task for the study.

Materials: Pads, cushions or other objects that are not mechanical in potential for objects to become magnetically attracted into the magnetic field of the scanner. Implanted pacemakers or other implants and devices may be affected by the magnetic environment. The magnetic field is always present 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. Equipment must be approved by the Research MRI Safety Committee prior to use for a research study or entry into the magnetic environment.
- B. Materials must be checked for safety prior to use in the magnetic environment.
- C. Equipment must operate normally within the magnetic environment in order to be used during a research procedure.
- D. Equipment must

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