

Emergency Procedures for Human Studies at RUBIC

Medical Emergency Procedure (to be followed in the order listed)

1. The MRI operator/designee will remove the research participant from the magnet bore.
2. The MRI operator/designee will free the participant from coils and all immobilization devices.
3. The MRI operator/designee will remove the research participant from the magnet room and take him/her to the control room.
4. The MRI operator/designee will lock the magnet room door.
5. The MRI operator/designee will call 911 (this is the emergency number for Rutgers University) to request emergency medical service (EMS) at Aidekman Research Center located at 197 University Avenue, on the corner of Warren and University Avenue.
6. The MRI operator/designee will call Rutgers security at (973) 353-5111 and tell them EMS will be directed to the Aidekman Research Center on the corner of Warren and University Avenue.
7. The MRI operator/designee will alert the RUBIC physicist and/or Facility Manager that there is a potential emergency.
8. No therapeutic procedures will be initiated until the subject is moved out of the scan room to the control room.
9. No equipment will be brought into the scan room.
10. The RUBIC staff or research personnel will cede responsibility to emergency responders and provide assistance as requested but ensure that no one enters the magnet room without screening.
11. After the emergency, the MRI operator/designee will report the adverse event to the Rutgers IRB and RUBIC executive committee.

MRI System Quench – Emergency Magnet Run-Down

A magnet quench quickly dissipates the scanner's magnetic field and may be initiated by pressing one of the two Magnet Stop buttons. A quench should only be initiated by authorized personnel in the event of a life-threatening emergency, such as an individual in respiratory distress being pinned to the magnet by a metallic object. A quench of the magnet is extremely expensive and has the potential to damage the equipment. In non-life threatening situations, such as a piece of equipment being pinned against the magnet no one should initiate a quench. In the event of a spontaneous 'quench' of the MRI system, follow procedure starting with evacuation of all personnel and visitors.

1. Start quench by engaging one of the two Magnet Stop buttons. One is located on the wall of the magnet room and the other is to the left of the operator console.
2. Evacuate the magnet room and control room
3. Notify Rutgers security at (973) 353-5111
4. Notify Siemens of the quench
5. File incident report and notify appropriate University personnel.

Electrical Fire

1. In the event that smoke or flames are detected in the vicinity of the electrical equipment, the operator should press the Red Emergency Power Shutdown button NOT QUENCH located in the control room or in the magnet room.
2. Follow standard evacuation procedure (see below).

Evacuation Procedure

1. The MRI system operator will lock the door to the magnet room.
2. In case of fire alarm activated in or near the RUBIC suite, a member of the RUBIC staff will contact Rutgers Security at (973) 353-5111 so that they can implement the appropriate Rutgers response procedure.
3. All personnel are to evacuate the building through the lobby of Aidekman Research Center.
4. No one will be allowed to reenter the building until granted permission by the Fire Department.

Incident Reports

1. An incident report must be submitted when an event occurs that has potential consequences for the infrastructure of the facility or for any adverse event involving a human research volunteer or an experimental animal.
2. A non-exhaustive list of incidents includes: hearing loss possibly related to the MRI sequence generation; heating of skin; ferromagnetic objects striking a research participant; equipment failure that has potential to injure a research participant; death of an experimental animal due to the procedures, etc.
3. The MRI system operator will file a report of the incident, co-signed by the relevant PI and laboratory member in charge of the experiment. This report will be submitted to the RUBIC Facility Manager who will notify the RUBIC Executive Committee.
4. Reports should be submitted internally to the RUBIC within 24 hours of the incident. RUBIC reports to other bodies, such as the relevant IRBs should occur within three (3) business days.

Copies of the reports to the relevant IRBs will go to the following Rutgers offices:

- Rutgers Administration and Public Safety (APS)
- Rutgers Office of the Vice President for Research and Graduate and Professional Education