

Operator's Training Checklist for those Conducting Human Research at the CMRR

The purpose of this document is to provide a list of key tasks that operators of the human research systems will need to know to safely operate the scanner as well as serving as a "hands on" review of pertinent safety materials covered in the CMRR Safety presentation. This list can be used as both a catalog of skills which need to be learned, as well as a check-off list for testing of skills. This checklist will be used for certifying completion of training and is signed by both the trainer and the trainee.

Checklist:

Safety

- Reviewed CMRR Human Subjects Safety & Policies Manual
- Location and use of quench button(s)
- Location and use of electrical shutdown button(s)
- Location of MR safe gurney and wheelchairs
- Location of AED's and CPR one-way breathing valves
- Review of building emergency procedures (medical and fire)
- Location and use of emergency power shutoff buttons
- Location of first aid kits
- Location and use of fire extinguishers
- Location and use of magnet emergency stop buttons
- Procedures for removing subject from magnet in an emergency
- Use of emergency squeeze ball

Subjects

- Recruiting subjects/volunteers
- Obtaining of consent
- Safety screening of subject and anyone accompanying them to scanner
- Escorting subject to/from scanner following transport lights
- Final screen and pat down prior to entering magnet room
- Familiarizing subjects with the scanner and its operation. This would include showing them the table, the surrounding magnet, and expected sounds during the scan and methods for communication including the intercom and the squeeze ball.
- Positioning of subject. This includes the insertion of earplugs, use of headphones, use of knee and other pads and having subject positioned on the table.
- Moving the subject to the magnet isocenter (patient table operation)
- Safely landmarking of subject using the laser system
- Adjusting light, airflow, and sound volume for subject comfort
- Removing subject from the magnet

General Magnet Operation

- Use of intercom communication system.
- Use of SAR monitoring system
- Adjusting RF power
- RF limits and connections for coils to be used

- Power on/off and reset of RF and gradient amplifiers
- Rebooting scanner electronics
- VNMR software operation
- Default RF front-end connections
- Routine electrical shutdown procedures
- How to configure Transmit and Receive based on operation mode (parallel vs single, narrow band vs wide band, H vs X nuclei, etc.)
- Clean-up of magnet room and console room.

Information Technology

- Procedure for reporting incidental findings
- Patient registration into scanner database.
- Marking time on web scheduler as used. Use of web based scheduling system including scheduling a session, canceling a session, and marking a session time as used.
- How to safely and securely transfer data.
- How to start up the console from a power off condition.

Training Completion Date: _____

Magnet Covered: _____

By signing below I attest that I have provided all of the above training to the individual listed below and they have demonstrated the ability to safely operate the scanner.

Trainer Name: _____ Trainer Signature: _____

By signing below I attest that I have received all of the above training from the individual listed above and I have read and understand the CMRR Human Subjects Safety & Policy Manual.

Trainee Name: _____ Trainee Signature: _____