

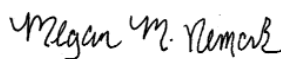
<b>Subject</b> MRI and External Fixators	<b>Attachments</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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<b>Review Responsibility</b> Radiology Review Committee	<b>Contact</b> Director of Radiology

- I. **PURPOSE** To define safe parameters in which patients with external fixators can be safely scanned.
- II. **POLICY**
- III. **PROCEDURE(S)** The following protocol will be used if a request is made to scan a patient with an external fixator in place:
1. All other diagnostic options must be considered and utilized if possible before scan occurs.
  2. All patients scanned must be alert and able to respond with the panic button if necessary. If the patient is not awake/alert, the scan can be performed as long as the external fixator is no closer than 7 cm from the edge of the bore. This means that for the Symphony MRI Scanner the external fixator must be at least 23 cm from the isocenter of the magnet. For the Espree, the external fixator must be at least 16 cm from the isocenter of the magnet. If the fixator is outside of the bore of the magnet, then no measurements are necessary.
  3. If the patient is not awake/alert and the external fixator is inside the measurement limits listed above, the MRI will not be performed.
  4. Cervical spine patients should be scanned in the Espree if possible. The Symphony Scanner should be used if necessary due to patient body habitus and coil selection. Symphony may also be used if the Espree is occupied and the scan is emergent.
  5. Informed consent must be obtained and should include advising the patient that the potential risks are not clearly known but include the risk of burns and tissue necrosis related to component heating. Damage can occur at the skin, in the soft tissues or in the bone.
  6. The fixator will be tested with a handheld magnet with removal of all easily ferromagnetic components if possible.
  7. Traction bows will be removed.
  8. Ice bags will be placed at the margins of all the pin-skin interfaces to minimize potential skin burns.
  9. The technologist will check the patient at least once while exam is being performed if the patient is awake. If the patient is not awake/alert, then the technologist will check the skin sites between each sequence.
  10. Scans will be performed to minimize SAR with average SAR less than 2.
  11. Scans will be performed in Normal Operating Mode.

- IV. **DEFINITIONS**
- V. **COMPLIANCE**
- VI. **ATTACHMENTS**
- VII. **OTHER RESOURCES**
- VIII. **APPROVAL(S)**



Dorothy Walden-Woodworth  
Director of Radiology



Megan M. Remark  
Vice President of Special Care and Clinic Operations

- IX. **ENDORSEMENT**