

DEPARTMENT OF MEDICAL IMAGING AND RADIATION SCIENCES

TECHNICAL STANDARDS FOR A MAGNETIC RESONANCE IMAGING (MRI) TECHNOLOGIST

A Magnetic Resonance Imaging (MRI) Technologist is typically employed in a hospital or a clinic to provide direct care for patients and must be able to apply verified knowledge and skillfully perform MRI procedures. Clinical and laboratory assignments for the MRI program require certain physical demands that are the technical standards of admission. These standards are based upon the minimum tasks performed by graduates of the program as recommended by the American Society of Radiologic Technologists. Listed below are the technical standards that all applicants must meet in order to participate and complete the MRI program:

1. Sufficient visual acuity to accurately administer contrast agents and to monitor imaging equipment as well as provide the necessary patient assessment and care.
2. Sufficient auditory perception to receive verbal communication from patients and members of the healthcare team and to assess the health needs of people through the use of monitoring devices such as intercom systems, cardiac monitors, respiratory monitors and fire alarms.
3. Sufficient gross and fine motor coordination to respond promptly and to implement skills related to the performance of MRI, such as positioning, transporting and imaging patients. MRI technologists must be able to manipulate equipment such as the scan console, power injectors and various RF receiver coils. In addition, MRI technologists must perform venipuncture on a regular basis.
4. Sufficient communication skills (verbal, reading, writing) to interact with individuals and to communicate their needs promptly and effectively, as may be necessary in the patient's/client's interest.
5. Sufficient intellectual and emotional function to plan and implement patient care.

Examples of specific technical standards the MRI student must be able to meet are:

- Lift, transfer and/or move patients from wheelchair/stretchers to scan table. Dock/release and wheel scan table to/from scan room to patient waiting area
- Lift, move, reach or push MRI equipment (lift MRI coils of up to 25 lbs., push/wheel docking table with patient to/from scan room)
- Manual dexterity and ability to bend/stretch
- Distinguish colors and shades of gray
- Demonstrate effective interpersonal relation skills, including patient instruction
- Read and extract information from the medical chart or patient requisitions
- Explain the clinical study verbally and/or in writing
- Interact compassionately with the sick or injured.

To perform/assist with MRI procedures on patients, students must initially undergo the same screening procedures as patients in order to enter the scan room. The MRI scan room contains a region of intense magnetic field. Objects that display any form of ferromagnetism are therefore of particular concern for MRI. Contraindications for entering the MRI scan room include:

- Certain biomedical implants, materials, and devices (e.g., aneurysm clips, brain clips)
- Certain electrically, magnetically and mechanically activated implants and devices (e.g., cardiac pacemakers, cochlear implants)
- Certain metallic foreign objects (e.g., shrapnel, bullets, metal in eyes)