

RADIATION PROTECTION POLICY

The goal of radiation protection is to limit the probability of radiation-induced diseases in persons exposed to radiation and in their descendants to a degree that is acceptable in relation to the benefits from the activities that involve such exposure (NCRP Report No. 107). Each student is required to exercise sound radiation practices at all times to ensure safe working conditions for physicians, staff, faculty, other students, and patients. Students should apply appropriate principles of radiation protection for themselves, the patient, and their co-workers. Failure to comply with the Radiation Protection Policy will result in disciplinary action up to dismissal from the Program. See Appendix for the MWHC Diagnostic Radiology General Clinical Practices Policy, Portable Radiology Policy, and Radiation Producing Machines Standards.

Protective Apparel:

The following guidelines must be followed regarding the use of protective apparel.

- A. Only persons who are necessary to the success of the examination may be present during radiographic exposures. These persons must wear lead aprons. All others must leave the room or move well within the confines of the control room.
- B. A lead apron and a thyroid shield must be worn for students assisting the physician during fluoroscopic procedures.
- C. A lead apron must be worn during all portable and operating room procedures.
- D. Lead aprons and shields are to be placed on the appropriate apron racks after the procedure is completed. **Lead aprons should not be folded.**
- E. Reproductive organ shielding should be used whenever possible for all patients undergoing examinations, as long as the clinical objectives of the examination are not compromised.

Pregnancy:

- A. Patients
 - 1. All women of childbearing age will be questioned as to the possibility of pregnancy and the last menstrual date.
 - 2. Students will notify the supervising technologist and physician of pertinent information and will follow the protocol of the clinical site in documenting the information.
- B. Students
 - 1. Students will operate in accordance with the MWHC Medical Imaging School of Radiology Pregnancy Policy.

Miscellaneous:

- A. The useful x-ray beam shall be limited to what is necessary for the examination being performed and shall in no instance exceed the dimensions of the image receptor. Evidence of proper collimation and/or shielding should appear on all radiographs. Post-exposure “shuttering, cropping or masking” which eliminates areas of exposure from the image is outside of our Scope of Practice as an Imaging Professional and is not a replacement technique for pre-exposure beam limitation (collimation).
- B. The cumulative radiation timer is to be reset at the beginning of each fluoroscopic procedure. Thereafter, it will be reset only after it has completely run out of time and the audible signal has sounded.
- C. Students should **never** take exposures on another student in the lab or clinical site.
- D. Students must perform all procedures under direct supervision until competency has been achieved.
- E. Students must perform **all repeat images** under the direct supervision of a registered radiographer.
- F. A minimum of indirect supervision is required on all procedures the student has proven competency in.

Evidence of Radiation Protection will be demonstrated by:

1. Collimating to part.
 2. Using gonadal shields, if appropriate.
 3. Demonstrating the use of a lead apron, blockers, and gloves, if appropriate.
 4. Selecting proper exposure factors.
 5. Adjusting exposure factors for motion, pathology or patient size when appropriate.
6. Verifying that no repeats were performed