

Title	Radiation Safety	Policy #	05-001
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POLICY

The Division of Diagnostic Imaging and Radiology will make every reasonable effort to limit the amount of radiation received by patients, physicians, employees, and visitors. To that end, procedures and guidelines will be developed that assist in this goal. These procedures and guidelines will address patients, physicians, employees, and visitors and will be developed with the collaboration of the Radiation Safety Committee.

The Division will provide a contract service for monthly radiation dosimeters (“radiation badges”). The reports of the badges will be kept by the Radiation Safety Officer (RSO).

All appropriate NCRP guidelines will be followed.

A Radiation Physicist is available within the institution for consultation whenever necessary.

All x-ray equipment, lead aprons, lead gloves and other safety equipment will be inspected on an annual basis according to state and federal regulations. Any problems found on the inspections are documented and action is taken to correct the deficiencies. The corrections will also be documented. These reports are available in the Radiation Safety Office.

PURPOSE

To define the division’s objective for radiation safety and procedures and guidelines for the safe operation of ionizing radiation producing equipment.

PROCEDURE

Protective Equipment:

1. Protective barriers are provided in every stationary exam area. They contain that amount of lead which is necessary for adequate protection according to current standards and such amount of lead will be calculated and reported by a qualified medical physicist. The control panel, exposure switch, and protective barrier are arranged so that it is inconvenient to make the exposure without standing behind the barrier. Stand behind it completely, do not lean around it.
2. Lead aprons in the division contain a minimum of 0.5 mm of lead. They shall always be worn during fluoroscopic procedures and any time you are in the room when an exposure is being made.
3. Lead gloves are available and contain at least 0.25 mm lead equivalent. They should be worn when it is necessary to have hands near the radiation beam.

4. All x-ray equipment should be shock proof, and there are circuit breakers to avoid overloading the equipment. Remember to find the cause of the overload before resetting.
5. Use immobilization devices whenever possible. This will eliminate unnecessary radiation dose to the person that would have to hold the patient.

Radiation Dosimeters (“Radiation Badges”)

Radiation dosimeters (“radiation badges”) are worn to monitor the amount of exposure you receive at Children’s National (CN) and CN offsite locations. They should always be worn while working with equipment that emits ionizing radiation. When not in use, radiation badges should be kept in low background area. Refer to the CN policy, CH:PC:S:29, Personnel Monitoring for Ionizing Radiation Exposure.

Basic Radiation Protection (physician, visitors, employees)

1. The three basic methods of protection from radiation are shielding, increased distance, and minimization of time of exposure.
2. Keep all doors closed when making radiation exposures.
3. When performing portable exams, wear a lead apron and stand at least six feet from the primary beam.
4. For radiation safety for a pregnant worker refer to the CN Hospital policy C-17, Pregnant Personnel Occupationally Exposed to Ionizing Radiation.

Patient Protection

1. Identify the patient by calling the patient’s name and checking the ID bracelet.
2. Study the request. Do you understand the order?
3. Use correct patient information.
4. Use technique charts when not using phototiming.
5. Collimate to the anatomical area being studied.
6. Check anatomical position before making the exposure.
7. Refer to Diagnostic Imaging and Radiology Policy 05-005 regarding the potential use of gonadal shielding
8. Report any malfunction of equipment to the appropriate supervisor (refer to Diagnostic Imaging and Radiology Policy 01-005).
9. Ask all female patients of childbearing age if they are or may be pregnant. If the answer is yes, then consult with a radiologist before doing the exam.

Approved by:

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6/30/2021

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Dates of review

Original: April 24, 1989
Revised: February 22, 2007
Revised: June 22, 2010
Revised: April 5, 2013
Reviewed: August 17, 2016
Reviewed: May 10, 2016
Reviewed: June 21, 2018
Revised: June 30, 2021