

**PROTOCOL FOR: Radiation Exposure: Minimizing Perioperative Patient Exposure**

- POLICY:**
1. The patient's exposure to radiation should be minimized.
  2. Lead shielding should be used, when possible, to protect
    - a. the thyroid during x-ray studies of the upper extremities, trunk, and head; and
    - b. the ovaries or testes during x-ray studies performed on the torso, hips, and upper legs.
  3. Female patients of childbearing age should be asked about the possibility of pregnancy, and the attending anesthesiologist and surgeon notified if the patient may be or is confirmed to be pregnant.
  4. Staff will wear shielding aprons to reduce the risk of exposure to radiation; Personnel who may have to stand with their backs to the radiation beam should wear wraparound aprons, although it is generally preferable to turn toward the beam when possible.
  5. Light-weight aprons that meet minimum thickness requirements will be procured whenever possible. Clinical Engineering will inspect the integrity of shielding aprons and devices annually. Shielding devices should be handled carefully and visually examined before use. Staff should notify Clinical Engineering if any aprons appear damaged.
  6. To minimize occupational exposure, Radiation Safety will inspect all imaging equipment on a scheduled basis; and nursing and radiology staff will report any lapsed Preventive Maintenance (PM) stickers to Radiation safety.
  7. Sentinel nodes demonstrating radioactivity should be labeled as radioactive before transporting the specimen from the OR.
  8. Female personnel with known or suspected pregnancy should declare this condition to their supervisor and to Occupational Medicine.
  9. Staff working in areas identified by Radiation Safety must wear dosimetry devices to measure occupational exposure and must comply with requirements of the UCHC program.

**DESIRED PATIENT**

- OUTCOME:**
1. The patient will be protected from unnecessary radiation exposure.

**CLINICAL  
ASSESSMENT  
AND CARE:**

1. Assist in positioning the patient and film /fluoroscopy properly.

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2. Use lead shielding to protect gonads and thyroid per policy.
3. Implement all reasonable means to reconcile incorrect sponge, sharp, and/or instrument counts.
4. Use lead shielding to protect abdomen and fetus of pregnant patients.
5. Segregate patients with radioactive implants apart from other patients

**APPROVAL:** Nursing Standards Committee

**EFFECTIVE DATE:** 7/97

**REVISION DATES:** 8/09