MRAD 254
Reflection: Minimizing Radiation Dose to Patients

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1. What is radiation dose, and why is it important to minimize it in medical imaging?

- Radiation dose is the amount of ionizing radiation a patient receives during a medical imaging exam.
- It is important to minimize the radiation dose because ionizing radiation can damage cells and may increase the risk of cancer over time. As medical imaging technologists, we have a responsibility to protect our patients by using radiation safely and effectively. This means carefully selecting exposure factors, using proper collimation, shielding when appropriate, and avoiding unnecessary repeat images. By following the ALARA principle (As Low As Reasonably Achievable), we can obtain diagnostic images while keeping the radiation dose to the patient as low as possible.

2. What are practical ways to reduce radiation exposure to patients during x-ray procedures?

- Using proper kvp and mAs;
- using shielding when appropriate ;
- collimating tightly to the area of interest ;
- avoiding repeat images;
- checking patients position is correct;
- using correct Sid and exposure factors ;
- communicating clearly with patients to prevent motion.

- Thank you