

RSNA Statement on Radiation Dose

Updated: 4/8/2018

The Radiological Society of North America (RSNA) is committed to excellence in patient care through education and research.

- Radiologists, radiation oncologists, medical physicists and other radiology professionals are committed to conscientious implementation of medical procedures that utilize ionizing radiation and the maintenance of rigorous standards of practice. This commitment is the basis for the “As Low As Reasonably Achievable (ALARA)” principle that has been applied by radiologists for decades. Radiologists also apply appropriateness criteria by consulting with patients’ physicians and other providers who order imaging examinations to guide the patient to the best procedure to address the clinical circumstance.
- There is agreement in the radiology community that certain imaging and radiation therapy procedures are associated with risks, which in each patient’s case must be weighed against the clinical benefit of the diagnostic information or treatment result that procedure may provide.
- In addition to promoting appropriate utilization, radiologists and medical physicists have worked together to improve the safety of imaging exams by lowering radiation dose without sacrificing diagnostic quality. Radiation oncologists and medical physicists have developed treatment regimens that improve outcomes while minimizing side effects and risks. Working with radiology equipment manufacturers, radiologic scientists are directly involved in the development of technologies and protocols to ensure patient safety in medical imaging and treatments.
- The RSNA endorses the position statement of the American Association of Physicists in Medicine (AAPM), which outlines its members’ commitment to optimizing radiation dose in medical imaging. ([AAPM Position Statement on Radiation Risks from Medical Imaging Procedures](#), March 21, 2017 www.aapm.org)
- With appropriate utilization, dose-optimized diagnostic protocols, and treatment performed based on developed practice guidelines, the potential benefits of imaging and therapy far outweigh the risks.
- To increase awareness of radiation risks and to explore opportunities to improve patient safety through appropriate utilization, quality assurance and dose optimization, RSNA has partnered with the American College of Radiology (ACR), the American Association of Physicists in Medicine (AAPM) and the American Society of Radiologic Technologists (ASRT) to conduct the Image Wisely campaign. Image Wisely is designed to raise awareness and promote education about radiation protection for patients undergoing medical imaging examinations.
- ImageWisely.org, directed at physicians and other medical professionals, was officially launched in November 2010 at the RSNA annual meeting. Thousands of imaging professionals and referring physicians have taken the pledge to Image Wisely. The website’s patient-directed content, which answers common patient questions about risks and benefits of medical imaging procedures, is available along with information on radiation exposure, contrast materials, anesthesia, radiation therapy procedures and other safety concerns on RadiologyInfo.org.
- Some states have enacted dose reporting regulations, requiring radiologists to provide radiation dose levels in all computed tomography (CT) reports and mandating that medical physicists conduct an annual assessment of the dosage units in every protocol.

- RSNA is also an active member of the Image Gently Alliance, whose mission is to improve safe and effective imaging care of children worldwide. ImageGently.org
- The RSNA Image Share network facilitates access to imaging examinations for patients and physicians, potentially reducing unnecessary repeat examinations, minimizing patient radiation exposure and enabling better informed medical decisions.
- Medical imaging examinations are an invaluable, but complex, set of tools in the diagnosis and treatment of patients. Through research, education and cooperative efforts with other organizations, RSNA continually works to improve the safety and effectiveness of these examinations.
- RSNA supports a requirement that all personnel involved in medical imaging and radiation therapy procedures performed on patients meet well-defined educational and credentialing criteria.
- To improve patient health and safety, RSNA supports the establishment of accreditation requirements for medical imaging and radiation therapy facilities, a radiation dose index registry, consistent and mandatory reporting methods for medical radiation errors, and inclusion of appropriate utilization criteria into order entry systems.

Through its peer-reviewed journals and education programs, RSNA continually informs radiologists, medical physicists, radiation oncologists and other radiology professionals of the latest technologies and research developments designed to optimize dose and improve patient safety.

The RSNA Scientific Assembly and Annual Meeting, one of the world's largest annual medical meetings, provides a forum for the exhibition of state-of-the-art medical imaging equipment, the presentation of radiologic research findings and the exchange of knowledge in education courses and plenary sessions.

For more than 25 years, RSNA's Research and Education Foundation has sought to improve patient care by providing funding grants and awarding individuals and institutions that advance radiologic research, education and practice.