

For More Information

- Ask your radiologist, radiographer, or radiology nurse about any concerns you may have—we're ready to help.
- RadiologyInfo.org is an excellent online source for information on imaging, exam types, and radiation safety.
- The American Society for Radiologic Technologists maintains another excellent and up-to-date website on all aspects of medical imaging at www.asrt.org.
- ImageGently™ is a national campaign for radiation safety in pediatric imaging; find their website at www.pedrad.org. ImageWisely is a national campaign for radiation safety in adult imaging. For more information visit their website at www.imagewisely.org.
- The American College of Radiology has created a comprehensive site for radiation safety information at www.acr.org/safety.
- All Radiologic Technologists are registered with the American Registry of Radiologic Technologists. The American Registry of Radiologic Technologists (ARRT) is the world's largest credentialing organization that seeks to ensure high quality patient care in medical imaging, interventional procedures, and radiation therapy. The ARRT provides ongoing testing and certification of technologists and administers continuing education and ethics requirements for the required annual registration and maintenance of credentials.

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- Every CT request is subject to a verification protocol to ensure that the exam is medically indicated, and that radiation-free (MRI, ultrasound) or low-dose alternatives cannot be used instead. We test all higher-dose radiographic equipment on a monthly basis—this is well above and beyond the annual interval required by the state.
- DHMC Radiology has a consistent emphasis not only on compliance with established imaging guidelines and regulations, but plays a leadership role in radiation safety. We adhere to the more comprehensive and stringent—but voluntary—guidelines established by the American College of Radiology and by the Joint Commission for Accreditation of Hospitals.
- We have a Medical Radiation Physicist on staff who is responsible for monitoring equipment performance, organizing quality control in imaging systems, assisting in the design of radiation installations, and control of radiation hazards.
- We also have a Radiation Safety Officer on staff. The Radiation Safety Officer ensures the safety and protection for those using radiologic materials. The Radiation Safety Office implements and enforces policies and procedures relevant to the use of radiation and maintains detailed records to ensure safety and compliance with local, state and federal laws.

Medical Imaging

at Dartmouth-Hitchcock



Medical Imaging at Dartmouth-Hitchcock

In 1896, Dartmouth was home to the first clinical x-ray ever performed in this country. 115 years later, radiology remains a core focus at Dartmouth-Hitchcock Medical Center (DHMC), even as it has evolved into an array of new technologies and imaging modalities. Simple x-ray imaging has been supplemented with fluoroscopy, magnetic resonance imaging (MRI), computed tomography (CT), ultrasound, nuclear imaging (PET, PET-CT, and SPECT), and a variety of interventional radiology treatments.

In each of these areas, Dartmouth-Hitchcock (D-H) has maintained its place as one of America's premier radiological centers. D-H provides direct patient care and diagnostic support to all clinical areas of the hospital, as well as teaching programs for new generations of radiologists and a range of research activities designed to improve the safety and usefulness of medical imaging.



The D-H Commitment to Imaging Safety

We are constantly exposed to radiation from natural sources—sunlight and radon gas are two examples. Most medical imaging exams use x-rays, a form of radiation which, in high amounts can be dangerous. However, medical radiation exposures are far below the known thresholds of immediate injury, and well under the levels at which long-term harmful effects—including cancer—are considered likely. But cancers typically develop slowly and have multiple causes, making the long-term risk from medical radiation difficult to know with certainty. Minimizing radiation doses is therefore a central, key element in the practice of medical imaging.

The Medical Imager's Pledge

- ▶ To put my patient's safety, health, and welfare first by optimizing imaging examinations to use only the radiation necessary to produce diagnostic quality images.
- ▶ To convey the principles of the Image Wisely program to the imaging team in order to ensure that my facility optimizes its use of radiation when imaging patients.
- ▶ To communicate optimal patient imaging strategies to referring physicians, and to be available for consultation.
- ▶ To routinely review imaging protocols to ensure that the least radiation necessary to acquire a diagnostic quality image is used for each examination.

from ImageWisely™ the national campaign for medical radiation safety

D-H has long been a leader in safeguarding patient health in all aspects of medical imaging. We are active members of the ImageGently™ and ImageWisely™ national campaigns. And, through our own "Image Right / Image Safe" program, DHMC Radiology supports and coordinates ongoing efforts to ensure the most appropriate and safest utilization of medical imaging through the D-H community.