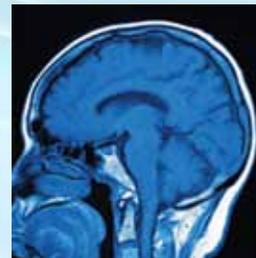


IMAGINE THAT IMAGE



A PATIENT-CENTERED RADIOLOGY NEWSLETTER



WHO IS MY RADIOLOGIST?

Your radiologist is a medical doctor who specializes in diagnosing and treating disease and injury by using advanced medical imaging techniques such as X-rays, computed tomography (CT), magnetic resonance imaging (MRI), positron emission tomography (PET), and ultrasound.

Radiology physicians have graduated from an accredited medical school, completed a specialized four-year residency in imaging, and successfully passed a licensing examination in diagnostic radiology. Most radiologists also advance to finish fellowship training—one to two additional years within a subspecialty of radiology (breast imaging, neuroradiology, cardiovascular imaging, nuclear medicine, etc.).

Radiology course work includes training in **radiation safety**, the optimal performance of radiological procedures with minimum exposure to patients, and quality control of medical imaging devices.

UPMC operates one of the nation's largest and most proliferative radiology departments, with more than 150 dedicated faculty, 60 residents, and 19 fellows.



FACULTY SPOTLIGHT



EMANUEL KANAL, MD, FACR, FISM, AANG

Director, Magnetic Resonance Services
Professor, Radiology and Neuroradiology

A world-renowned magnetic resonance (MR) expert, Emanuel Kanal has published extensively on MRI and MRI safety-related topics. He was the first to develop—and teach others about—magnetic resonance angiography (MRA) as a noninvasive diagnostic tool; it is now routinely used on millions of patients around the world. As an FDA consultant, he coauthored the first-ever MRI safety textbook and has developed custom MRI software widely in use at the University of Pittsburgh. The American College of Radiology (ACR)'s *Guidance Document for Safe MR Practices* is heavily based on the safety policies he wrote. Kanal has chaired the ACR MRI Safety Committee, which recently published new guidelines for the safe use of MRI contrast agents, since its inception in 2001.

At UPMC, he is **YOUR** radiologist.

"When it comes to caring for our patients, there's no room for second best. Our department's goal is not just to practice state-of-the-art diagnostic radiology, but rather to help define it."

EMANUEL KANAL



TAKE CONTROL OF YOUR SAFETY



Your doctor wants only the best for you. Unfortunately, no procedure is without risk. Just as medication use has potential adverse effects, tests that require ionizing radiation or contrast agents may carry potential risks to be weighed against the benefits. Asking questions is your right and improves communication, reducing unnecessary risk.

Here are a few suggestions:

- What are the potential risks involved with this test?
- Do the benefits of this test outweigh any potential risks?
- Will this test change my medical or surgical management?
- Does my age or gender affect my risk?

Because some imaging techniques involve the use of radiation, adequate training in and understanding of radiation safety and protection is important.

Remember, a radiologist's training includes the following topics, among others:

- Radiation safety and protection
- Radiation effects on the human body
- Appropriate performance and interpretation of quality medical imaging examinations and procedures

For more information, visit www.radiologyinfo.org.

THE AMERICAN COLLEGE OF RADIOLOGY

and its commitment to safe and appropriate imaging

The American College of Radiology (ACR) is a nonprofit professional society with more than 34,000 members. The primary aim of the society and its members is to improve the quality of patient care.

ACR has established an array of well-respected guidelines, standards, and accreditation programs that are the cornerstone of its commitment to quality patient care.

Image Gently and Image Wisely are awareness programs sponsored by ACR, the Radiological Society of North America, and several other organizations. The objective of these programs is to encourage practitioners to avoid unnecessary ionizing radiation scans and to use the lowest optimal dose for necessary studies.

For more information, visit www.imagewisely.org.

ADVANCING MEDICINE

THROUGH CUTTING-EDGE IMAGING RESEARCH

At the University of Pittsburgh Department of Radiology, faculty are involved in many amazing projects in such areas as:

- Identification of neural pathway injury following traumatic head injury
- Improved detection of lung nodules and acute pulmonary embolism
- MRI appearance of the knee following anterior cruciate ligament (ACL) repair
- Pediatric cardiac imaging
- Advanced ultrasound detection of thyroid cancer and liver tumors
- Early detection of Alzheimer's disease by novel PET and MRI techniques

► CLINICAL ISSUES

Computed tomography (CT) has become an invaluable tool in modern medicine. However, as it uses ionizing radiation, safe and appropriate use are top priorities. In addition to using updated guidelines from national organizations and technological improvements from medical device companies, physicians at UPMC are researching advanced computer algorithms that may help to reduce radiation doses by 20–80 percent.



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