



The Insider

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FREE PATIENT INFORMATION

QRA Tradition

Quakerbridge Radiology Associates enjoys a long tradition of placing itself at the leading edge of technological advances. Over the past few years, we have acquired a multi-slice CT scanner, open-MRI and digital mammography with computer assisted diagnosis (CAD). Our commitment to bring the latest in technological advances to our patient population continues with our recent installation of a Picture Archiving and Communication (PACS) system. This radiology image and information network will dramatically streamline operations and enhance patient care.

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Accredited by the American College of Radiology

Off The Record

Quakerbridge Radiology has "Taken the Pledge" to image gently.

As medical imaging exams have replaced more invasive procedures, benefiting patients and revolutionizing medicine, Americans' exposure to medical radiation has increased, raising concerns among imaging providers. Particularly, children are more sensitive to radiation received from imaging scans than adults, and cumulative radiation exposure to their smaller, developing bodies could, over time, have adverse effects. Radiologists play a key role as healthcare providers for children. Radiology is critical in diagnosing illness in children, impacting their treatment and improving patient outcomes.

Quakerbridge Radiology Associates is proud to announce that we have "Taken the Pledge" to image gently. The *image gently* Campaign is an initiative of The Alliance for Radiation Safety in Pediatric Imaging. The Campaign goal is to change practice by increasing awareness of the opportunities to lower radiation dose in the imaging of children. The *image gently* Campaign will initially focus on computed tomography (CT) scans. Soon medical imaging (with CT scans as the largest contributor) will approach or potentially exceed background radiation as the single largest source of radiation for humans. There were approximately 4 million pediatric CT scans performed in 2006. In fact, the number of pediatric CT scans performed in the United States has tripled in the last five years as rapidly evolving CT technology replaces more invasive and often more costly techniques. The *image gently* Campaign is an effort to help ensure that medical protocols for the imaging of children keep pace with advancing technology.

What is The Alliance for Radiation Safety in Pediatric Imaging?

The Alliance is a consortium of professional societies who are concerned about radiation exposure children receive when undergoing

medical imaging procedures. Currently, 13 societies representing the fields of radiology, pediatrics, and medical physics and radiation safety are involved. The Alliance recognizes the often life-saving value of medical imaging. However, techniques used in pediatric imaging may not be tailored to children's smaller bodies, resulting in radiation exposures that are greater than necessary. This is especially true for CT scans.

The message of the *image gently* Campaign is simple: Reduce or "child-size" the amount of radiation used when obtaining a CT scan in children. This message is targeted to the radiologists who perform relatively few CT examinations of pediatric patients in their hospital or outpatient practice but who, in aggregate, perform many pediatric CT examinations throughout the United States.

The *image gently* Alliance is not just an alliance of organizations; it is a dynamic alliance of individual health care professionals—the radiologist, radiology technologist, medical physicist, and pediatrician. This team approach creates a powerful force that can change practice.

Quakerbridge Radiology Associates understands the importance of educating referring physicians and parents about which imaging examinations may be most appropriate for children and how these studies may be carried out in a safe and effective manner. By sharing information on innovations in radiation safety and best practices, we try to make a difference in the lives of our patients and their families. Our commitment to the *image gently* Campaign is focused on helping you improve your child's health and well being.

Your Image. Your Choice. Talk to your Doctor!

DAVID S. LEDER, MD
MEDICAL DIRECTOR
QUAKERBRIDGE RADIOLOGY ASSOCIATES

www.qbradiology.com

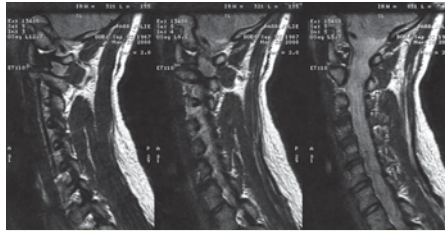
Magnetic Resonance Imaging (MRI) of the Spine

If you look at the ocean long enough, you will notice the water level rising and falling throughout the day. We call this alternating rise and fall in sea level the tides. Every 24 hours there are two high tides and two low tides. This is caused in part by the gravitational pull of the moon.

Something analogous happens during an MRI (Magnetic Resonance Imaging) procedure. Humans are composed largely of water. During the procedure they are surrounded by strong magnetic fields (this is the Magnetic part of MRI). The hydrogen molecules (the H part of H₂O, water) are pulled in the direction of the magnetic field. Another magnetic field at an angle to the first one pulls some of the hydrogen in a new direction. Then the fields are deliberately shifted. The hydrogen molecules drift back to their original position. When they do this, they leave behind a signature of their own (this is the Resonance part of MRI).

Because the body has different levels of density in different places (soft tissue, organs, bone) the hydrogen molecules realign at different speeds. Thus the MRI scanner picks up and interprets lighter and darker areas. What makes MRI so special is the amount of information and the high level of contrast that yields very rich pictures (the imaging part of MRI) that help Radiologists see more inside the body.

MRI is very useful in showing the spine; the vertebrae that make up the spine as well as the disks, spinal cord, and the spaces through which nerves pass.



Uses of MRI in viewing the spine

- Explore possible causes of neck or back pain
- View disks to see whether they are bulging, herniated or degenerated; a frequent cause of lower back pain and sciatica
- Evaluate nerves to see whether they are pinched or inflamed
- Find diseased tissue
- Find infection or tumors
- Plan surgery
- Follow changes after surgery
- Guide injection of pain killers to relieve pain

MRI takes highly skilled specialists to make it work. There are 3 types of specialists who perform them: the radiographers who run the procedures, the radiologists (physician specialists in MRI) who interpret them, and system specialists who manage the systems and data.

Some things to keep in mind when going for an MRI

MRI is a safe diagnostic procedure, especially when trained professionals such as those at QRA manage it. But the

MRI does generate strong magnetic fields and certain precautions should be taken. When you schedule an MRI at QRA, you will receive a questionnaire that is part of the QRA protocol. Answer it carefully. Patients with pacemakers should definitely let staff know, also people with other devices such as nerve stimulators, defibrillators, insulin pumps and cochlear implants.

When you arrive for your session, you will be given a locker in which to store your personal items and clothes and you will dress in a gown. This ensures that you don't carry metal objects into the room. You will be asked to lie on a gurney which slides in and out of a tube that is actually surrounded by a scanner and a powerful magnet. The radiographer will place you in the proper position for the scan. It is important that you remain as still as possible so the scans are clear. There may be some banging once the scanning starts. It is the sound of the expanding and contracting of the magnetic coil because of shifting magnetic fields. Wearing a headset (QRA will provide one) that plays any type of music you like masks the noise.

When your doctor orders an MRI at Quakerbridge Radiology, you work with a professional staff that makes you comfortable, takes high-quality scans, and provides an informed, detailed report. All of our quality equipment, specialized skills and proven procedures are designed to make your MRI experience safe, effective, and comfortable.

image gentlySM

The **image gently** Campaign is an initiative of the Alliance for Radiation Safety in Pediatric Imaging. The Campaign goal is to change practice by increasing awareness of the opportunities to lower radiation dose in the imaging of children. Here at Quakerbridge Radiology we have taken steps to show that we care for kids!

Steps Quakerbridge Radiology Associates has taken:

- Increase awareness for the need to decrease radiation dose to children during CT scanning.
- Committed to making change in our daily practices by working as a team to decrease the radiation dose.
- We review our adult CT protocols; then use the simple CT protocols "down-size" the protocols for kids. More is not better; adult-size KV and mAs are not necessary for small bodies.

Quakerbridge Radiology welcomes three new professionals to its staff.

John Pugh, CPA, CMPE, Executive Director Mark Castaldi, MD, Radiologist Karen Stewart, RIS/PACS, Administrator



John E. Pugh, CPA, CMPE (Certified Medical Practice Executive) has joined QRA as Executive Director. John has an extensive background in finance and in healthcare management. He comes to QRA from a radiology practice where he managed growth from 5 to 31 physicians and from 10 to 200 employees. He is responsible for all of the non-clinical functions of QRA.

“John is at the center of the operations side of QRA,” said Dennis Balgowan, MD President/Managing Partner. He ensures that our complex practice, including patient reimbursement, runs smoothly, so that healthcare professionals can concentrate on what they do best; providing the best diagnostic imaging and patient care possible.

John graduated with Honors from Northeastern University with a BA in Accounting. He became a CPA (Certified Public Accountant) in 1980 and a Board-Certified Medical Practice Executive in 2006. He is the past president of the New Jersey Society of Radiology Business Managers as well as a member of various professional management associations.



Mark Castaldi, M.D., has joined Quakerbridge Radiology Associates as a Diagnostic Radiologist. He comes to QRA from Memorial Sloan Kettering Cancer Center, where he worked as a General Diagnostic Radiologist.

Dr. Castaldi graduated Dean’s List from Hamilton College with a Bachelor of Science in Biochemistry. He attended the Sackler School of Medicine in Tel Aviv, Israel, where he won honors in Anatomy and was a Tutor-Sackler SOM, then completed his medical degree at UMDNJ–Robert Wood Johnson School of Medicine. He interned in Internal Medicine at Emory University and completed his residency in Diagnostic Radiology at Albert Einstein College of Medicine/Montefiore Medical Center. He followed this with a fellowship in Body Imaging–MRI, CT, US (winning the honor of Chief Fellow) at Memorial Sloan Kettering Cancer Center.

“Dr. Castaldi is a welcome addition to Quakerbridge Radiology Associates respected team of physicians” said Dr. David Leder, Medical Director. “His deep experience in Radiology and his focus on patient care make him a great addition to our team.”

Dr. Castaldi is a member of American College of Radiology, Radiological Society of North America and New York Roentgen Society.



Karen Stewart, joined QRA as the RIS (Radiology Information System)/PACS (Picture Archiving & Communications System) Administrator, which means she is responsible for storing, retrieving, tracking, scheduling and reporting on patient radiological data and imagery. She comes from Robert Wood Johnson Hospital where she functioned as the PACS Administrator and MRI Supervisor.

Karen is a certified radiographer (Honors), has a BS in Allied Science and Technology (Honors), and is currently pursuing a Masters degree in Health Administration.

“Karen has a very important job,” says Dr. David Leder. “A radiology practice is focused on quality pictures and images. Karen is responsible for making sure those pictures and images are easily and quickly accessible. Her 22+ years experience in radiology imaging, storing and retrieval, ensure that this will be done with the highest level of professionalism and competence.”

Karen is a New Jersey State Licensed Radiographer, certified in Cardiovascular Interventional Radiography, and in Radiology Administration. She is a member of The ASRT, AHRA and SIIMS. She has lectured on Radiology and the OR and she has worked with AHRA as an item writer for questions on the Certified Radiology Administrator’s exam.

Frequently Asked Questions - Parents

Is there an increased risk of cancer from medical radiation, especially CT scans?

While no one can point to a single individual and say that their cancer was caused by medical radiation, there is evidence that exposures to radiation levels found during CT scans may slightly increase the risk of future cancer. The risk for developing cancer is debated and variable, and may be zero, but estimates also range from about 1 in 500 to 1 in 10,000 fatal cancers from a single CT scan. This needs to be interpreted against the risk of developing cancer over one's lifetime. Since the risk of developing cancer in an individual is about 1 in 5 during a lifetime, the extra risk from CT is very small.

If my doctor orders a CT scan, should I let my child have it?

Like any medical test, the beneficial information gained from the test should outweigh the risk of having the test performed. CT is a very powerful and valuable imaging technique that can provide important and even life-saving information. Sometimes, however, imaging tests like ultrasound and magnetic resonance imaging (MRI) can provide the same information as CT but not expose your child to any radiation. You should ask your doctor and Quakerbridge Radiology Associates whether these alternatives are appropriate for your child's situation. If a CT is best test, we at Quakerbridge Radiology will use a low dose technique to minimize radiation exposure during the test.

Information courtesy of www.imageready.org

How can I be sure that my imaging facility is using appropriate reduced radiation techniques?

Some facilities that perform CT scans on adults do not use radiation dose reduction techniques when scanning children. You won't know unless you ask, and it is reasonable and within your rights to do so. Your imaging provider should be able to provide you with information about what they do to reduce radiation doses during CT (such as reducing CT tube output, performing single phase scans, reducing exposure to areas away from the clinical concern, etc.). Other things to ask about include whether the facility has American College of Radiology accreditation, whether the CT technologists are credentialed, and if the person interpreting the studies is a board-certified radiologist or pediatric radiologist.

Who should I talk to about my concerns?

Any discussion should start with your child's physician. They will know or can inquire if the imaging center to which they refer utilizes appropriate pediatric CT scanning techniques, and if a non-radiation imaging test might be as useful for your child's situation. If not, you should ask to speak with the technologist or radiologist at your imaging facility so that your concerns and questions can be answered. Here at Quakerbridge Radiology Associates you can be sure that we utilize appropriate pediatric CT scanning techniques and if you have any questions or concerns you can contact us directly. We are here for you!

WE NOW HAVE WIFI/INTERNET ACCESS AT OUR IMAGING CENTER.



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RADIOLOGY
We're Proud of Our Image

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For more information on Quakerbridge Radiology's state-of-the-art capabilities, please visit www.qbradiology.com.