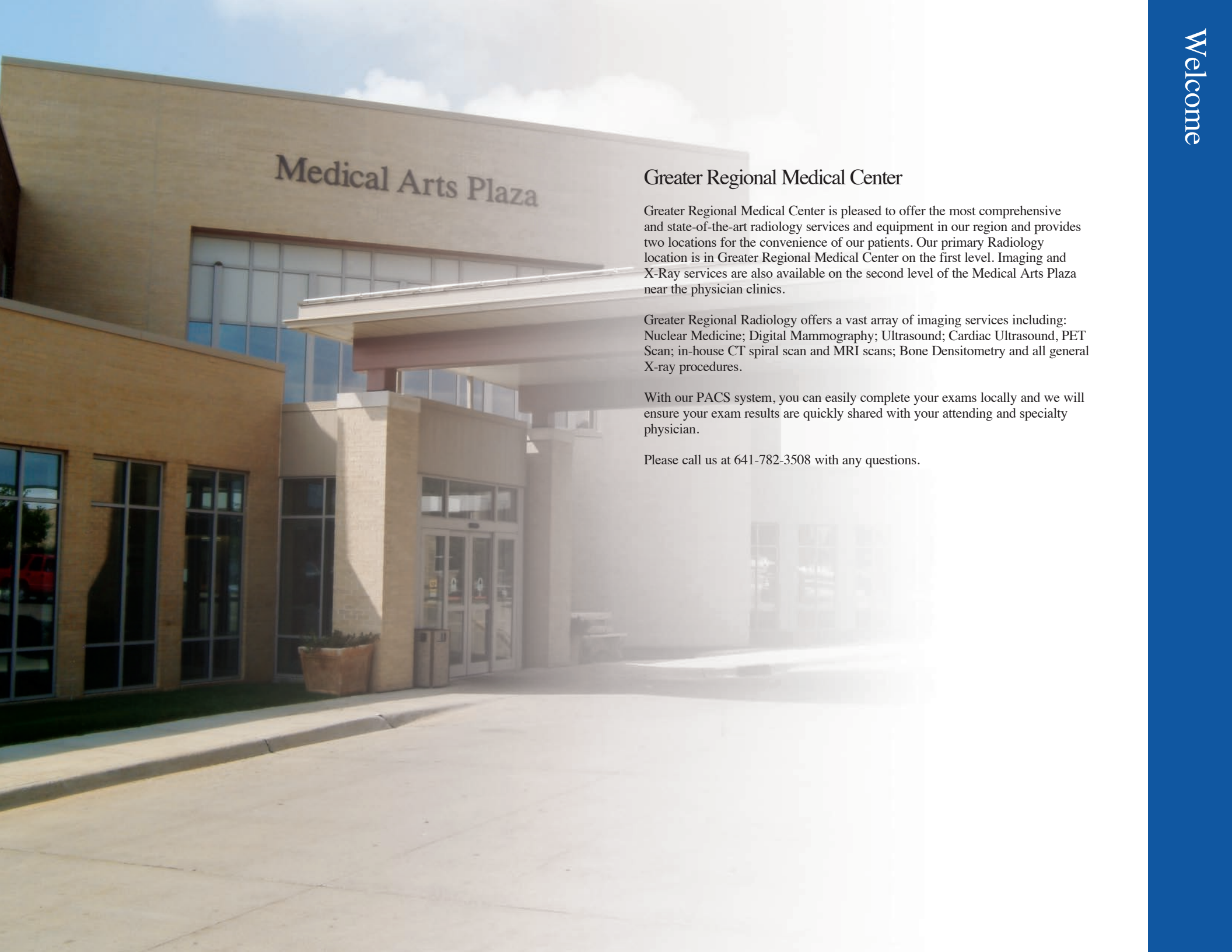


**GREATER REGIONAL
MEDICAL CENTER**

It's great to know, when you need us, we're here.



Medical Arts Plaza

Greater Regional Medical Center

Greater Regional Medical Center is pleased to offer the most comprehensive and state-of-the-art radiology services and equipment in our region and provides two locations for the convenience of our patients. Our primary Radiology location is in Greater Regional Medical Center on the first level. Imaging and X-Ray services are also available on the second level of the Medical Arts Plaza near the physician clinics.

Greater Regional Radiology offers a vast array of imaging services including: Nuclear Medicine; Digital Mammography; Ultrasound; Cardiac Ultrasound, PET Scan; in-house CT spiral scan and MRI scans; Bone Densitometry and all general X-ray procedures.

With our PACS system, you can easily complete your exams locally and we will ensure your exam results are quickly shared with your attending and specialty physician.

Please call us at 641-782-3508 with any questions.

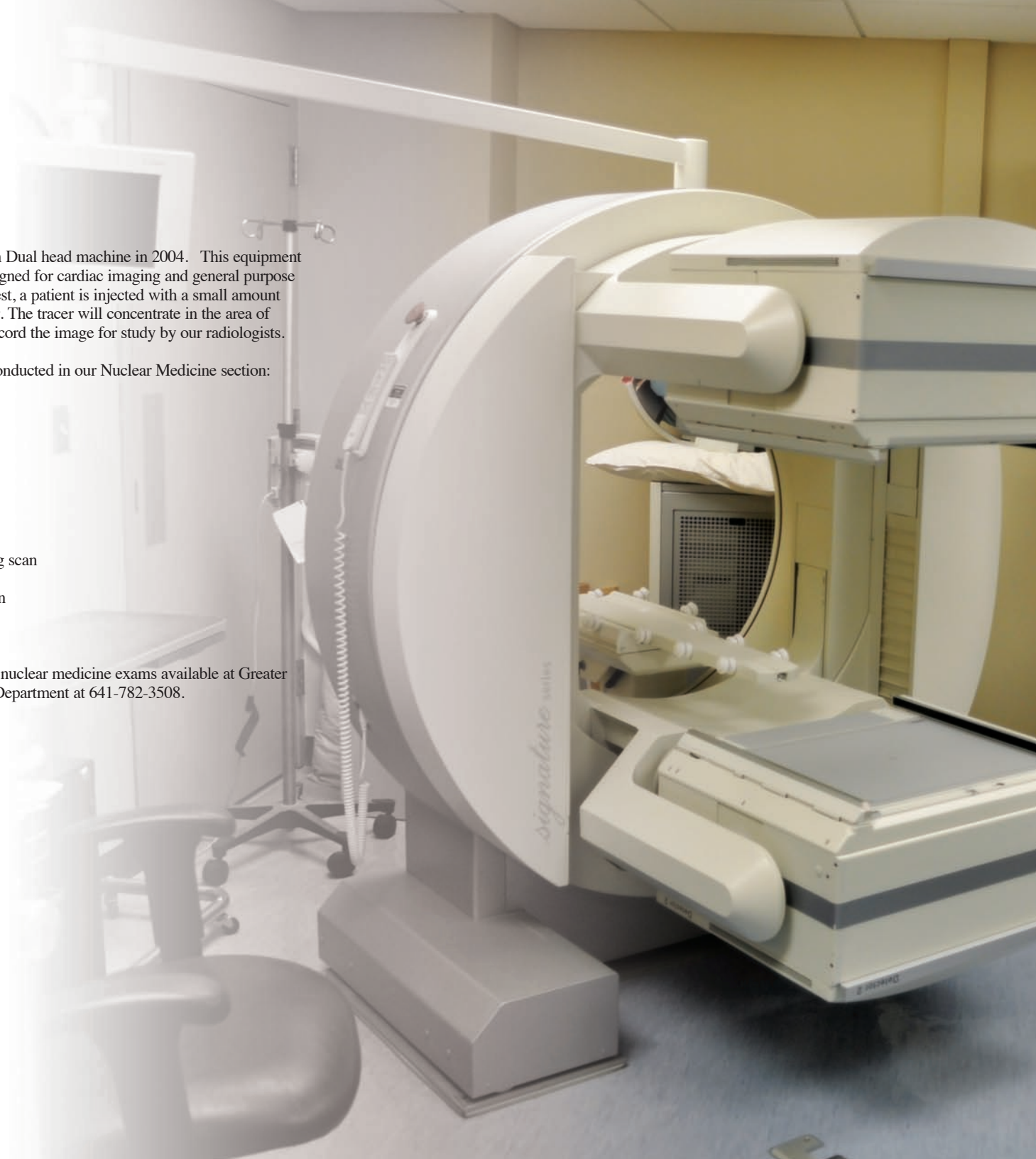
Nuclear Medicine

Greater Regional installed an E. Cam Dual head machine in 2004. This equipment is a variable dual headed system designed for cardiac imaging and general purpose nuclear medicine imaging. For this test, a patient is injected with a small amount of radioactive material called a tracer. The tracer will concentrate in the area of interest, and a nuclear camera will record the image for study by our radiologists.

The following exams are currently conducted in our Nuclear Medicine section:

- :: Whole body bone scans
- :: Limited bone scans
- :: 3 phase bone scans
- :: Myocardial perfusions
- :: Hida scan
- :: Solid gastric emptying
- :: Liquid gastric emptying
- :: Mugas
- :: Ventilation and perfusion lung scan
- :: Parathyroid scan
- :: I-123 Thyroid uptake and scan
- :: TC Thyroid scan
- :: Sentinel Node localization

For additional information regarding nuclear medicine exams available at Greater Regional, please call the Radiology Department at 641-782-3508.





Digital Mammography

Greater Regional added the Lorad Selenia Digital Mammography system in 2009.

Breast cancer will affect an average of one in eight women sometime in their lifetime. It is the second most common cause of cancer related deaths in women. Numerous studies prove that early detection is a vital component in the successful treatment of breast cancer. Mammograms play a central part in the early detection of breast cancer because they can detect changes in the breast that may be early signs of cancer, but are too small or subtle to be felt. The use of mammography has greatly enhanced the ability to detect breast cancers at earlier stages. Now a new technology called full field digital mammography shows great promise in the fight against breast cancer.

Full Field Digital Mammography.

Digital mammography uses computers and specially designed digital detectors to produce an image that can be displayed on a high-resolution computer monitor, and transmitted and stored just like computer files.

From a patient's point of view, having a digital mammogram is very much like having a conventional screenfilm mammogram. Both film-based and digital mammography use compression and x-rays to create clear images of the inside of the breast. During all mammography exams, the technologist positions the patient to image the breast from different angles and compresses the breast with a paddle to obtain optimal image quality.

Unlike film-based mammography, digital mammograms produce images that appear on the technologist's monitor in a matter of seconds. There is no waiting for film to develop, which can mean a shorter time spent in the breast imaging suite.

Benefits of Digital Mammography

Unlike other parts of the body, the breast is composed mainly of soft tissue. When breast tissue is x-rayed, it creates an image that looks something like a smoky haze, making it difficult to see tiny "spots," called microcalcifications, and other subtle signs of early cancer.

With digital mammography, the radiologist reviews electronic images of the breast, using special highresolution monitors. The physician can adjust the brightness, change contrast, and zoom in for close ups of specific areas of interest. Being able to manipulate images is one of the main benefits of digital technology.

Another convenience of digital mammography over film-based systems is it can greatly reduce the need for retakes due to over or under exposure. This potentially saves additional time and reduces your exposure to x-rays.

Because they are electronic, digital mammography images can be transmitted quickly across a network. Digital images can also be easily stored, copied without any loss of information, and transmitted and received in a more streamlined manner, eliminating dependence on only one set of "original" films.

Early Detection is the Key

Because our primary goal has always been to deliver the highest quality care to our patients, we are adding digital mammography to our women's health diagnostic services. We have chosen a Lorad® Selenia™ digital mammography system because we believe it offers the best technology available. Please call our office to your schedule your annual mammogram.

For additional information regarding mammography exams available at Greater Regional, please call the Radiology Department at 641-782-3508.

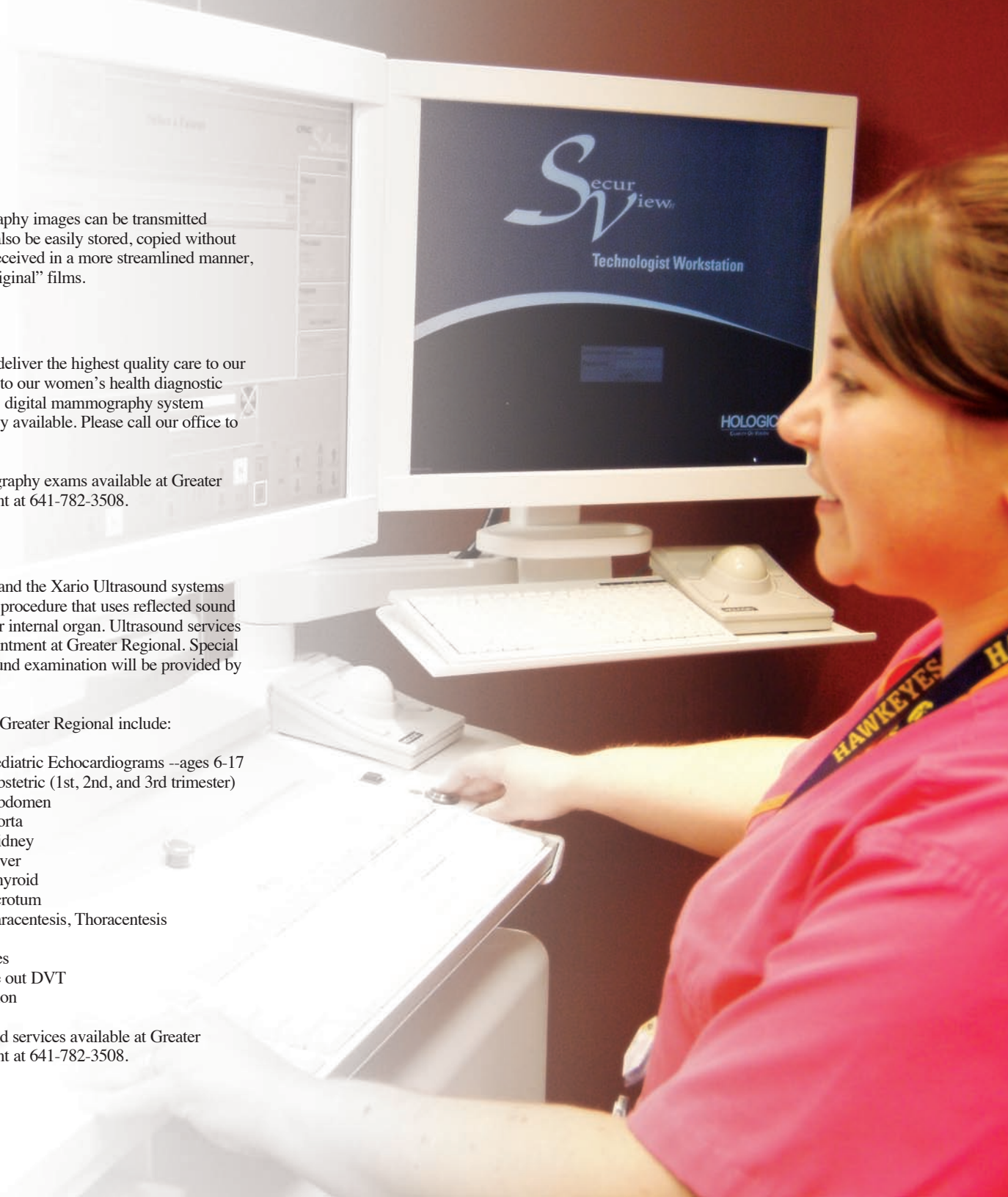
Ultrasound

Greater Regional added the Aplio Ultrasound and the Xario Ultrasound systems in 2009. An ultrasound test is a non-invasive procedure that uses reflected sound waves to produce a picture of a blood vessel or internal organ. Ultrasound services are provided Monday through Friday by appointment at Greater Regional. Special instructions pertaining to your specific ultrasound examination will be provided by your physician.

Types of Ultrasound Procedures performed at Greater Regional include:

- :: Echocardiograms
- :: Pediatric Echocardiograms --ages 6-17
- :: Pelvic
- :: Obstetric (1st, 2nd, and 3rd trimester)
- :: Carotid (cerebrovascular duplex)
- :: Abdomen
- :: Spleen
- :: Aorta
- :: Gallbladder
- :: Kidney
- :: Bladder
- :: Liver
- :: Pancreas
- :: Thyroid
- :: Breast
- :: Scrotum
- :: Chest
- :: Paracentesis, Thoracentesis
- :: Thyroid biopsy
- :: Small parts, superficial lumps, structures
- :: Venous duplex of arms and legs to rule out DVT
- :: Ultrasound guided breast (cyst) aspiration

For additional information regarding ultrasound services available at Greater Regional, please call the Radiology Department at 641-782-3508.



Positron Emission Tomography Imaging (PET)

Since 2005, Greater Regional has offered the Discovery ST, a PET/CT system completely optimized for cancer care. This system integrates a Positron Emission Tomography (PET) scanner with a multi-slice Computer Tomography (CG) scanner and is capable of 2D and 3D imaging with a larger bore for all patient studies or sizes. This Discovery ST system provides physicians with more sensitivity, speed, resolution, and diagnostic confidence when treating cancer patients. The “ST” in Discovery ST stands for “See and Treat,” which is what this system allows physicians to do. The Discovery ST assists our physicians in seeing the disease and planning radiation therapy treatment.

Less time on the table means faster results and greater patient comfort. The Discovery ST allows healthcare providers to not only “see” the disease, but begin to “treat” it.

Before having a PET/CT scan, the patient receives a dose of a radiopharmaceutical tracer containing substances that mimic those normally used in the body including water, sugar, proteins, and oxygen. These tracers accumulate in diseased cells. During the scan, the tracers are detected by the system creating an image of the patient and highlighting any abnormal physiology. This image helps our physicians determine if disease is present, the location and extent of disease, and track how rapidly it is spreading.

For additional information regarding PET scan exams available at Greater Regional, please call the Radiology Department at 641-782-3508.



Computerized Tomography Scan (CT)

Greater Regional installed the Toshiba Aquilion in 2006. This system combines x-ray with the use of a high-speed computer and takes cross sectional pictures of the anatomy and our unit is a 32 slice system. It is one of the most sophisticated tests now available. This is a painless, non-invasive procedure that provides images that are invaluable in the diagnosis of a wide variety of health conditions. A CT scan shows the outlines of soft tissue and bone. Within seconds, our CT scan equipment creates highly detailed images. These images or "slices" are then created into three-dimensional images of the body part being examined.

In addition, the CT scan is also used for many of our cancer center patients in the preparation phases for radiation therapy.

For additional information regarding CT scans available at Greater Regional, please call the Radiology Department at 641-782-3508.

Types of CT scans performed at Greater Regional include:

Head

- :: Head without or with contrast
- :: Orbits
- :: Mandible
- :: Facial bones
- :: IACs

Spine

- :: Cervical spine
- :: Thoracic spine
- :: Lumbar spine

Neck

- :: Soft tissue with or without contrast

Chest

- :: Chest with or without contrast
- :: Dynamic chest
- :: Chest for pulmonary embolus

Abdomen

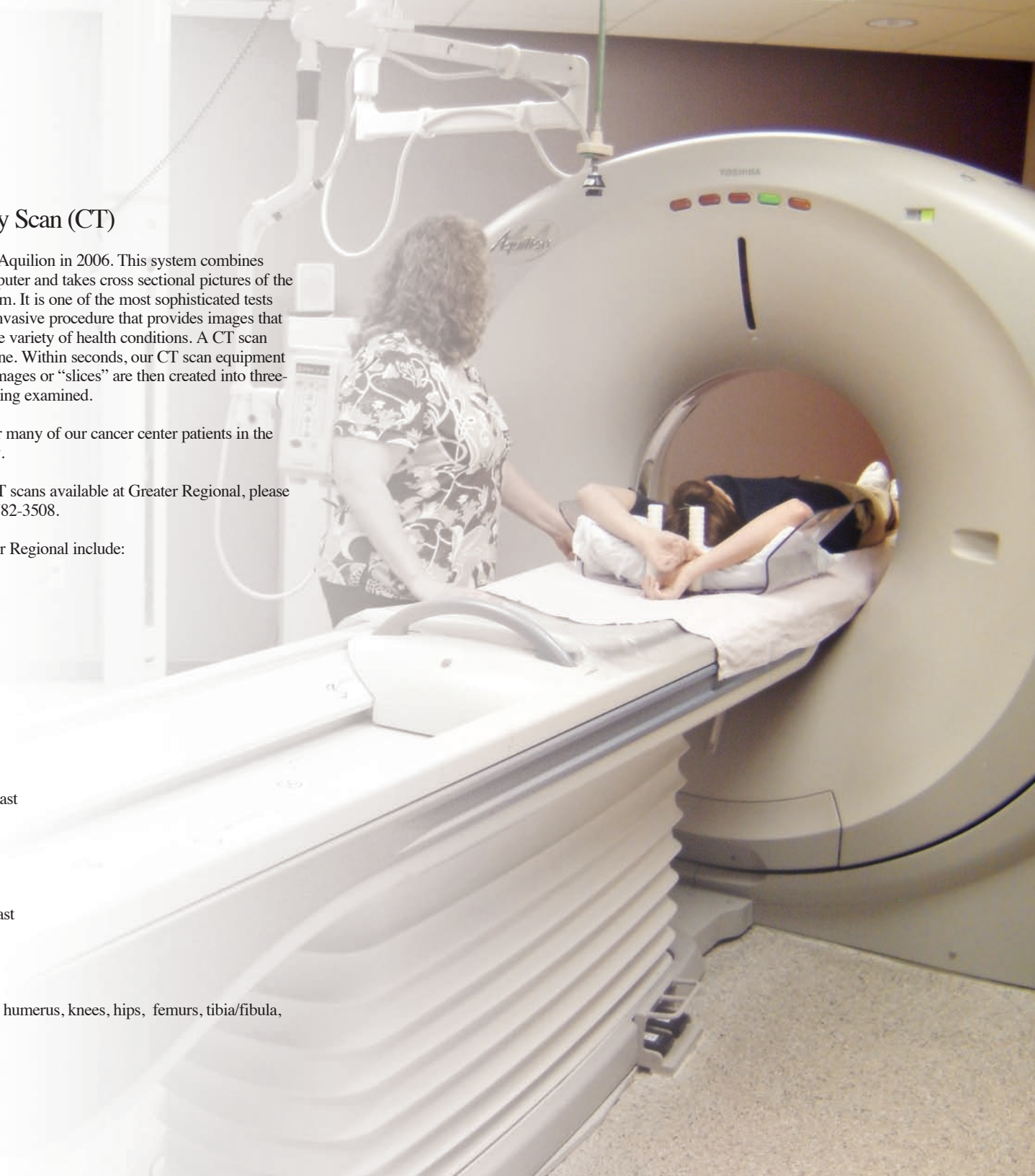
- :: Abdomen with or without contrast

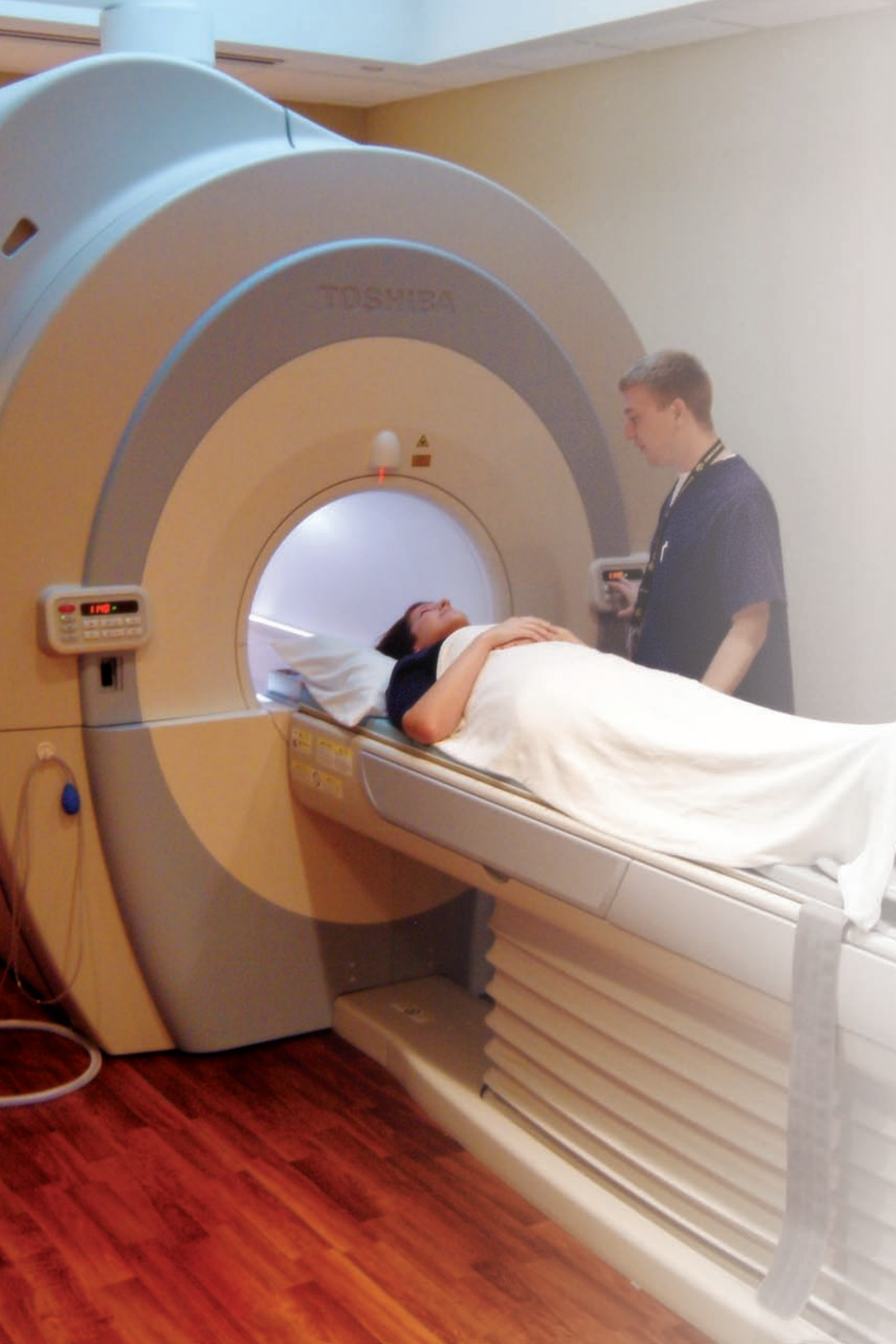
Pelvis

- :: Bony pelvis
- :: Pelvis with or without contrast

Extremities

- :: Elbows, wrist, hands, shoulders, humerus, knees, hips, femurs, tibia/fibula, ankles, feet





Magnetic Resonance Imaging (MRI)

Greater Regional Medical Center added the Vantage Titan Magnetic Resonance Imaging Equipment from Toshiba in-house in 2009. The Titan MRI system features Pianissimo™ technology, which reduces exam noise, to provide you with a quieter, more comfortable experience. Pianissimo is a musical term meaning play softly, so instead of the loud pounding other MRI systems produce, the sound you will hear is more like a gentle tapping. The quiet nature of our system also makes communications between you and the technologist easier.

Titan features an ultra-short, open bore providing a larger, more spacious environment during your MRI exam. The MRI sees through bone and soft tissue, and is especially helpful to diagnose brain and nervous disorders, such as tumors, certain spinal conditions, abnormal fluid in the skull, stroke and traumatic injuries. Like the CT scan, the MRI test is painless and non-invasive.

Your MRI exam provides doctors with high quality images they can use to diagnose and evaluate your physical condition. The Titan system provides more room in the magnet and less noise during the exam, so it is easier to remain motionless during your procedure.

Your comfort, combined with the latest exam techniques on our Titan, assures that your doctor gets the best possible images for the most accurate diagnosis.

What Should You Expect on Exam Day?

No special preparations are required prior to your exam. You may eat and drink normally, although it is best to limit your caffeine intake. Women should also refrain from wearing eye shadow or mascara.

Prior to the exam you will be asked to remove all jewelry and metal objects. During the exam, just like a photograph, the most accurate images will be taken when you are still.

The technologist may place an MRI coil around the part of the body to be scanned. Like an antenna, the closer the coil is to the area of interest on your body, the better the image quality of your exam.

MRI scans do not use any X-rays or other types of potentially harmful radiation.

Immediately following the scan, you may resume your normal activities unless otherwise directed by your physician.

For additional information regarding MRI exams available at Greater Regional, please call the Radiology Department at 641-782-3508.

Types of MRI exams include

- Brain
 - :: Pituitary
 - :: Internal Auditory Canals
 - :: Orbits
 - :: Circle of Willis
 - :: MRV (Venus Brain)
- Spine
 - :: Cervical spine
 - :: Lumbar spine
 - :: Thoracic spine
 - :: Sacrum
- Upper Extremities
 - :: Shoulder
 - :: Shoulder Arthro
 - :: Humerus
 - :: Elbow
 - :: Forearm
 - :: Wrist
 - :: Hand
 - :: Finger
- Lower Extremities
 - :: Femur
 - :: Knee
 - :: Tib/Fib
 - :: Ankle
 - :: Foot
- Pelvis
 - :: Bony pelvis
 - :: Female pelvis
 - :: Hips
- Miscellaneous
 - :: Brachial plexus
 - :: Carotids
 - :: Soft tissue neck
- Abdomen
 - :: Liver
 - :: MRCP
 - :: Kidney
 - :: Adrenals
 - :: Non contrast renal
 - :: Abdominal mass





Bone Densitometry/Dexa Scan

Greater Regional has the GE Lunar Prodigy Bone Densitometry machine. It is the most commonly used test for measuring bone mineral density. It is one of the most accurate ways to diagnosis Osteopenia or Osteoporosis. Your results from this test can be a great help as you and your physician as you monitor your treatment plan.

For additional information regarding bone density exams available at Greater Regional, please call the Radiology Department at 641-782-3508.

General X-ray

Greater Regional offers a wide variety of imaging exams to meet the need for orthopedic, general and fluoroscopy x-rays to assist our physicians in the diagnoses of illnesses.

For additional information regarding general x-ray exams available at Greater Regional, please call the Radiology Department at 641-782-3508.