

# Bone Densitometry

Bone Densitometry or DEXA (short for dual energy X-ray absorptiometry) scans provide physicians with an early diagnostic tool by which to determine whether osteoporosis treatment is needed. The patient group most benefiting from this type of testing is early post-menopausal women.

During a comprehensive examination with DEXA, you will lie comfortably still on a padded table while the DEXA unit scans two or more areas, usually the fracture-prone hip and spine. Unlike typical X-ray machines, radiation exposure during bone densitometry is extremely low—*less than the radiation exposure during a coast-to-coast airline flight*. The entire process takes only minutes to complete, depending on the number of sites scanned. It involves no injections or invasive procedures, and you may remain fully clothed.

## PREPARING FOR BONE DENSITOMETRY

Unless instructed otherwise, eat normally on the day of the exam, but avoid taking calcium supplements for at least 24 hours prior to your appointment. Wear loose, comfortable clothing. Sweat suits and other casual attire without zippers, buttons, grommets or any metal are preferred. You should not have had a barium study, radio-isotope injection, oral or intravenous contrast material from a CT scan or MRI within seven days prior to your DEXA test.



areas of concern, enhance readability, and improve interpretation of the images.

Medical experts agree that successful treatment of breast cancer is often linked to early detection. The American Cancer Society recommends a screening mammogram every year for women beginning at the age of 40. Women who have had breast cancer or those with a family history of breast cancer should talk with their physician regarding individualized recommendations for age and screening frequency.

A typical mammogram consists of two views of each breast. In all four views, the breasts are compressed firmly between two clear plates. The breast compression and positioning that occurs during filming is necessary in order to acquire the best possible visualization of breast tissue. Our facility is accredited by the American College of Radiology and our technologists will work hard to ensure that the examination is as brief as possible and to minimize any discomfort.

## PREPARING FOR A MAMMOGRAM

Advise us, at the time of scheduling your appointment, if you have breast implants. If you have had previous abnormal mammograms taken at another facility, please obtain the films and bring them with you if possible.

On the day of your test, do not wear deodorant, powder, lotion, or jewelry around your neck. Wear a two-piece outfit, as you will be asked to undress completely from the waist up. The actual procedure of taking the images normally takes about 10 minutes. A radiologist will study your mammogram images and report the results to your physician.

## WHERE DO I GO ON MY TEST DATE?

For all tests, go to the Radiation Department located on the First Floor of the hospital. Bring physician orders or lab work with you to your appointment. If your procedure requires sedation, please confirm that you have had a recent physical with lab work performed.

## WHAT HAPPENS TO MY TEST RESULTS?

All St. Francis Medical Center Radiology and Diagnostic Imaging exams are interpreted by a Board Certified Radiologist. Once you have completed your procedure, a radiologist will view your test results and dictate a report. This report will be forwarded to your referring physician who will discuss the test results directly with you.



## YOUR APPOINTMENT

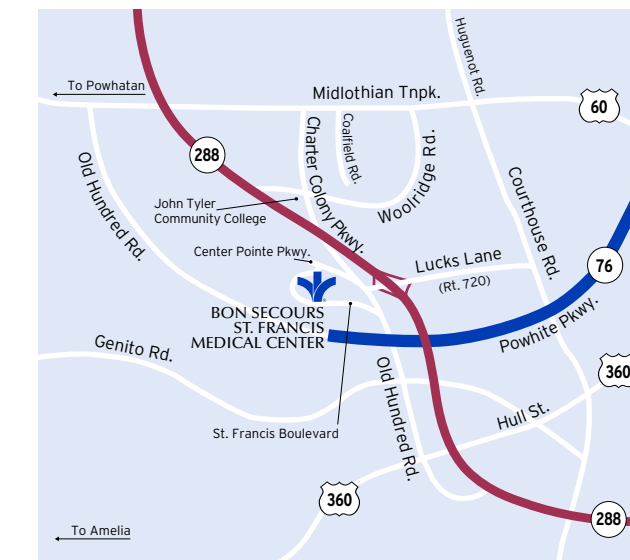
Your appointment is scheduled for:

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Test Type: \_\_\_\_\_

As a courtesy to other patients, please arrive at least 30 minutes before your appointment time. Any delays in your arrival may result in the rescheduling of your appointment. If you are unable to make your appointment, notify us as soon as possible so we can reschedule. Twenty-four hour's notice is greatly appreciated.



BON SECOURS ST. FRANCIS MEDICAL CENTER

### Radiology & Diagnostic Imaging

13700 St. Francis Blvd., Midlothian, VA 23114

Appointment Scheduling (804) 627-5660

Procedure Inquiries (804) 594-3180

Fax (804) 594-3185

# BON SECOURS ST. FRANCIS MEDICAL CENTER RADIOLOGY & DIAGNOSTIC IMAGING

CENTRAL SCHEDULING: 804.627.5660

- COMPUTED TOMOGRAPHY (CT)
- CT ANGIOGRAPHY (CTA)
- DENSITOMETRY (DEXA)
- DIGITAL MAMMOGRAPHY
- DIGITAL RADIOGRAPHY (X-RAY)
- POSITRON EMISSION TOMOGRAPHY (PET)
- MAGNETIC RESONANCE IMAGING (MRI)
- DIGITAL FLUOROSCOPY
- INTERVENTIONAL RADIOGRAPHY
- NUCLEAR MEDICINE
- ULTRASOUND

St. Francis Medical Center's radiological services are fully digital and picture archival communications compatible (PACs).



BON SECOURS  
ST. FRANCIS MEDICAL CENTER  
Bon Secours Richmond Health System

# Magnetic Resonance Imaging (MRI)

MRI is an advanced medical imaging technique that uses a magnetic field and radio waves instead of X-ray to image different parts of the body. It is an easy, safe and comfortable exam. It provides an excellent way to diagnose diseases of the brain, spine, skeleton, chest, abdomen, pelvis and blood vessels.

The MRI exam requires you to lie very still on a table that moves into a scanner housing a large magnet. During the procedure, you may communicate with your technologist by intercom. They will explain the various noises that you will hear, and you may be provided with earphones to listen to music. The procedure lasts 20–60 minutes, depending on the number and types of images needed. In some cases, your physician may order the administration of intravenous contrast dye to enable visualization of some specific images.

## PREPARING FOR AN MRI

- Eat normally. Take your usual medications unless your doctor gives you other instructions.
- Bring any pertinent X-rays, CT scans or previous MRI exams.
- Bring your insurance identification card or any other relevant insurance information.

MRI is very safe. There are no known health risks associated with the magnetic field or the radio waves used by the machine. However, some special circumstances limit the use of a magnetic field, so it is important for you to tell us if any of the following apply to you or someone accompanying you into the exam room:

- cardiac pacemaker or artificial heart valve
- metal plate, pin or other metallic implant
- intrauterine device, such as Copper-7 IUD
- insulin pump or other infusion pump
- aneurysm clips
- previous gunshot wound
- inner ear implant

- ever been a metal worker (had metal in eye)
  - if you are pregnant
- Any metallic substance, on or in you, can affect the quality of the diagnostic images. It can also cause discomfort or injury when placed in the magnetic field and may exclude you from the exam.

## CT

Computed Tomography (CT) is a diagnostic tool that uses X-rays to produce a series of computerized images of your body that are useful in detecting many medical conditions that do not appear on traditional X-rays.

Similar in appearance to a MRI scanner, the donut-shaped CT scanner houses an X-ray tube that moves rapidly around a specific anatomical area, sending signals to a computer. The computer reconstructs these signals to form a complete image of your internal anatomy.

During your CT exam, you will be asked to lie very still and quiet on a padded table for approximately ten to twenty minutes.

## PREPARING FOR A CT

If your CT exam requires the use of a contrast agent, the technologist may start an IV, or you may drink an oral contrast agent. These contrast agents allow greatly enhanced CT images. Please plan to pick up oral contrast



agents in advance of your appointment at the St. Francis Medical Center Radiology Department. Otherwise, you must arrive one hour ahead of your scheduled appointment time to drink the contrast. Continue taking your daily medications prior to your exam.

If you have ever had a previous allergic reaction to a contrast agent, or have multiple allergies or suffer from asthma, it is very important that you notify us prior to your visit. If you are 65 or older, please confirm with your physician whether blood tests to check kidney function are necessary. If you are having a CT of the brain or head, you may drink only clear liquids in the four hours prior to your appointment.

If you are having an abdominal or pelvic CT scan, you may not eat or drink in the four hours prior to your study.

## PET/CT

Bon Secours Richmond Health System was the first in Central Virginia to offer PET/CT, which is a major advance in medical imaging and patient care.

As the name implies, the PET/CT combines two state-of-the-art technologies in one. The PET (Positron Emission Tomography) highlights the abnormal metabolic function of cells. The CT (Computed Tomography) then can depict the exact location of the cells with precision and clarity.

Together, these images create a 3-D picture that enables doctors to make better decisions for earlier cancer treatment. PET/CT also allows early detection of cancer recurrence and can improve chances for treatment success.

## PREPARING FOR PET/CT

- Wear warm, comfortable clothing.
- Do not eat or drink 6 hours before your exam.

If you have diabetes, meal times and medication may need to be altered. Please ask your doctor what is best for you.



## Ultrasound

Ultrasound uses high-frequency sound waves to create still or video images of soft tissue areas of the body. To capture these images, an ultrasound gel is first applied to the skin over the area to be viewed. A hand-held instrument called a “transducer” is then moved slowly across your skin as an image appears on the ultrasound monitor.

Ultrasound procedures are painless and quick. Ultrasounds performed at Bon Secours St. Francis Medical Center Radiology and Diagnostic Imaging usually take less than 30 minutes to complete.

## PREPARING FOR AN ULTRASOUND

If your abdomen or pelvic regions are to be examined, you may be asked not to eat or drink after midnight prior to the exam, or asked to report with a full bladder. Otherwise, there is no special preparation required before your ultrasound.

## Nuclear Medicine

Nuclear medicine scans use a camera to take pictures of certain tissues in the body after a radioactive tracer accumulates in the tissues following either oral or intravenous administration of radioisotope. The

radiation dose is very small and not associated with any measurable risk, and serves to make tissues visible on the scanning pictures. Each type of tissue that may be scanned (including bones, organs, glands, and blood vessels) uses a different radioactive compound as a tracer. The tracer remains in the body temporarily before it is eliminated as waste, usually in the urine or stool (feces).

## PREPARING FOR A NUCLEAR MEDICINE TEST

Various procedures have different protocols, and therefore, will require specific instructions. It is likely, you will be advised not to consume food or drink for at least 4 hours prior to your appointment. If you are having a renal (kidney) function test, plan to drink plenty of water in advance of the procedure.

## Interventional Radiography

Interventional radiography is the use of imaging to highlight a specific body system for diagnosis and treatment. The procedures are minimally invasive and often are an alternative to large surgical incisions, and generally involve less risk, pain, recovery time, and expense.

Interventions in this category include kyphoplasty, vertebroplasty, and steroid injections. Intravascular procedures include uterine fibroid embolization, stroke intervention, venous access, and angioplasty/stenting. This specialty also includes needle directed biopsies, embolization of arteries to control bleeding or treat malignancies, and radio frequency ablation (RFA) of tumors.

Interventional Radiography is often referred to as “21st Century Medicine” and is a rapidly growing area of medicine at St. Francis Medical Center. Please contact 594-3198 if you need further information on these types of procedures.