

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 are not visible on traditional x-rays.

Similar in appearance to an MRI scanner, the donut-shaped CT scanner houses an x-ray tube and

x-ray detectors that move 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 15 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, or both. These contrast agents allow greatly enhanced CT images. Please plan to pick up oral contrast agents in advance of your appointment at the Bon Secours Facility where your test will be completed. Otherwise, you must arrive two (2) hours 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. You may not eat for 4 hours prior to any CT scan if you are having IV contrast done.

All patients receiving IV contrast can have clear liquids before the exam, including abdomen and pelvis exam. Continue taking your daily medications prior to your exam, except Ibuprofen (i.e., Advil, Motrin, etc.) and Naproxen Sodium (i.e., Alleve, etc.)

- If you are 65 or older and your doctor has ordered your CT with IV contrast, you will need lab work for kidney function before you have your scan.
- If you are having an abdominal or pelvic CT scan, you may not eat or drink in the 4 hours prior to your study.
- If you are having a CT of the brain or head, you may drink only clear liquids in the 4 hours prior to your appointment.
- Wear warm, comfortable clothing.

PET/CT

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.

How do I schedule my test?

To schedule, call Central Scheduling: 627-5660, Monday–Friday, 7:30AM–6:30PM; Saturday, 8:00AM–12:00PM. In most cases, the referring physician will schedule your test. Mammograms can be scheduled directly by the patient by calling Central Scheduling at 627-5660. In addition, you can schedule a screening mammogram on-line at www.bonsecours.com. X-rays do not need to be scheduled.

All tests except screening mammograms require a written physician's order. Depending upon your insurance, the test may require a referral authorization number from your insurance company prior to the exam.

Please arrive at least 30 minutes before your appointment time. If you cannot make your appointment, notify us as soon as possible so that we can reschedule. Twenty-four hour notice is greatly appreciated.

What happens to my test results?

All exams are interpreted by board certified radiologists. 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. **Please contact your referring physician for results.** We recognize that people want to know the results of their test as soon as possible. We make every effort to process results promptly and accurately.

Where do I go on my test date?

In addition to four Bon Secours hospital locations, we also have several convenient outpatient imaging locations. Not all imaging modalities are offered at

every location. Please arrive 30 minutes before your test unless other instructions have been given to you.

St. Mary's Hospital
5801 Bremond Road
Richmond, VA 23226

Laburnum Diagnostic Imaging Center
4630 S. Laburnum Avenue, Suite C
Richmond, VA 23231

Memorial Regional Medical Center
8260 Atlee Road
Mechanicsville, VA 23116

Richmond Community Hospital
1500 N. 28th Street
Richmond, VA 23223

St. Francis Medical Center
13710 St. Francis Boulevard
Midlothian, VA 23114

St. Francis Imaging Center
8013 Midlothian Turnpike
Richmond, VA 23235

**Bon Secours Imaging Center
Reynolds Crossing**
6605 W. Broad Street
Richmond, VA 23230

Imaging at Belvidere
505 W. Leigh Street, Suite 105
Richmond, VA 23220



	St. Mary's	Memorial Regional	St. Francis	Richmond Community	St. Francis Imaging	Imaging at Belvidere	Reynolds Crossing	Laburnum Diagnostic
Interventional Radiology	❖	❖	❖					
Computed Tomography (CT)	❖ ¹	❖ ¹	❖ ¹	❖	❖		❖ ¹	
DEXA/Bone Densitometry	❖		❖		❖	❖	❖	❖
General Radiology	❖	❖	❖	❖	❖	❖	❖	
Mammography	❖ ²	❖ ²	❖ ²	❖	❖ ²	❖	❖ ²	❖ ²
Magnetic Resonance Imaging (MRI)	❖ ³	❖ ⁵	❖ ³	❖	❖ ⁴		❖ ³	
Nuclear Medicine	❖	❖	❖	❖				
PET/CT	❖	❖	❖					
Ultrasound	❖	❖	❖	❖	❖		❖	❖

¹Coronary CT Angiography (CCTA) available ²Digital ³Breast MRI available ⁴Open MRI ⁵3T

Central Scheduling: (804) 627-5660



good imaging



Bon Secours Richmond Health System now has eight imaging facilities throughout the Richmond area — so great imaging services are always convenient. With weekend and extended evening hours, plus central scheduling, it's fast and easy to get exactly what you need. We offer advanced imaging technology including the 64-slice CT, Open MRI, 3T MRI, digital mammography, breast MRI with Digital CAD, and PET/CT. You can count on Bon Secours to deliver the best, most innovative imaging services with a compassionate touch.

central scheduling

804•627•5660



Good Help to Those in Need®

Mammography

Mammography is a specific type of low-dose, non-invasive x-ray used to examine breast tissue, commonly searching for breast tissue irregularities. Digital mammograms let your doctor focus in on the 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 facilities are accredited by the American College of Radiology. All of our facilities offer Mammopads and our technologists will work hard to ensure that the examination is as brief as possible and to minimize any discomfort.

Mammograms make it possible to detect tumors that

cannot be felt. Mammograms can also find microcalcifications (tiny deposits of calcium in the breast) that sometimes indicate the presence of breast cancer. Mammography can be used either for screening or for diagnostic purposes in evaluating a breast lump.

■ **Screening mammography** is used to detect breast changes in women who have no signs or symptoms or observable breast abnormalities. The goal is to detect cancer before any clinical signs are noticeable. They usually require at least 2 mammograms from different angles of each breast.

■ **Diagnostic mammography** is used to investigate suspicious breast changes, such as a breast lump, breast pain, an unusual skin appearance, nipple thickening or nipple discharge. It is also used to evaluate abnormal findings on a screening mammogram, or to view breast tissue when it is difficult to obtain a screening mammogram because of special circumstances, such as the presence of breast implants. Additional images can be made from other angles or focus on areas of concern at higher magnification. A diagnostic mammogram takes longer than a screening mammogram because it involves more x-rays in order to obtain additional views.

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.

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 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.

MRI

Magnetic Resonance Imaging (MRI) is an advanced medical imaging technique that uses a magnetic field and radio waves instead of x-rays 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.

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.

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**
- **previous gunshot wound**
- **metal plate, pin or other metallic implant**

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 to enable visualization of some specific structures.

- Bring your insurance identification card or any other relevant insurance information.
- Bring your order from your physician.

- **inner ear implant**
- **intrauterine device, such as Copper-7 IUD**
- **aneurysm clips**
- **ever been a metal worker (had metal in eye)**
- **if you are pregnant**
- **insulin pump or other infusion pump**

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.

DEXA/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 benefiting most from this type of testing is early post-menopausal women.

During a comprehensive examination with DEXA, you will lie still on a padded table while the DEXA

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

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.

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.

X-ray

An X-ray image is produced when a small amount of radiation passes through the body and strikes a plate or detector placed on the other side of the body. The ability of x-rays to penetrate tissues and bones varies according to the tissue's composition and mass. Bone, which contains calcium, does not let much

radiation through and results in white images on the x-ray film. The lungs, which are filled with air, allow nearly all x-rays to strike the film, resulting in a black film image. Chest x-rays are the most common radiology exam.

PREPARING FOR AN X-RAY

General Radiology (x-ray) is offered on a walk-in basis, with no appointment necessary. A written order from your doctor is required. Generally, for plain x-rays, there is no preparation. If you are pregnant or nursing, you will need to notify your technologist.

Depending on the area of your body to be x-rayed,

you may need to change into a gown upon arrival. When you have an x-ray, it usually requires at least 2 views of the body part to be taken. Occasionally, multiple views are taken. Therefore, the process can take anywhere from 5 to 30 minutes to complete.

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 radio-isotope. 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 that 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 Radiology

The **Interventional Radiology** service performs a wide variety of procedures that utilize imaging guidance. These procedures are often minimally invasive and may replace more invasive surgery. Interventional radiology procedures include uterine artery embolization for fibroids, kyphoplasty/vertebroplasty for fractured

vertebrae, back pain management, angiography, angioplasty, venous access placement, interventional oncology procedures including chemoembolization and radiofrequency ablation of tumors, percutaneous nephrostomy, percutaneous biliary drainage, image guided biopsies, and abscess drainages.

PREPARING FOR INTERVENTIONAL RADIOLOGY

Many of the procedures are performed under sedation and require at least 6 hours of fasting.