Information for Patients and Families
• Radiologist subspecialty expertise: Radiologists are national experts who are trained in specialty areas such as breast imaging & intervention, CT, MRI, PET/CT, PET/MR, ultrasound, diagnostic x-ray, interventional radiology, and nuclear medicine & molecular imaging.

• State-of-the-art-technology

• Radiation dose reduction and optimization
We understand that radiation exposure is a concern to our patients and their referring physicians. Stanford Imaging Services is committed to the radiation safety principles of ALARA (As Low As Reasonably Achievable). Technologists are trained in latest dose reduction techniques to provide the highest level of diagnostic quality images for each individual patient.

• Imaging protocols developed specifically by Stanford Radiologists

• Expanded capacity & convenient locations to better serve the community

• Patient-centric environment

• Coordination of care
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What is a CT Scan?
A computed axial tomography (tuh-mah-gruh-fee) scan, is also called a “CAT” or “CT” scan. CT imaging is a noninvasive examination that uses advanced x-ray systems to take images of the inside of the body. CT scans are different than conventional x-ray examinations because they allow us to see behind structures with more definition than standard x-ray imaging. CT is superior in demonstrating bone, soft tissue, and blood vessels to traditional x-ray imaging. The CT machine takes images, also called “slices” that show only a few layers of body tissue at a time. By taking images this way, our Stanford radiologists can better define and assess the anatomy in your body and characterize problems faster and more accurately. A CT scan examination can range from 15 minutes to 1 hour depending on the exam ordered. Our CT technologists are licensed by the American Registry of Radiologic Technologists (ARRT), and also hold advanced certifications in the modality of CT. Our organization is accredited by and follows the American College of Radiology (ACR) guidelines, to ensure the radiation doses of all CT scans at Stanford Health Care are “As Low As Reasonably Achievable (ALARA).” The ALARA principle urges providers to use the minimum amount of radiation to achieve the necessary results.

What Will Happen during the CT Examination?
The CT scanner is a large machine with a hole-in the center; some people say it looks like a giant donut. You will lie on a special table that slides into and out of this donut-shaped hole. The technologist and care team will sit behind a window at a computer console during the CT scan; however, they will be able to see, hear, and speak with you at all times, thanks to the advanced microphone systems inside the exam and operating console rooms. People who are claustrophobic in MRI, generally don’t experience the same fears in CT. This is because the donut shape of the machine is open, and the scan times are considerably faster and quieter than MRI scanners. You may be asked to change into a hospital gown and to remove all jewelry, earrings, or other metal objects. The care team will help you lie down on the CT scan table. The body part being tested may be kept in place with tools or straps to help hold you very still. Special lights may be used to make sure that you are properly positioned. You
may be asked to hold your breath during the scan so that your images do not have motion on them. It’s important to lie very still during the CT scan examination. If you move, the CT scan images may not be clear. Your care team will take every effort to make sure you are comfortable for your CT examination.

Contrast material may be used to help highlight blood vessels and organs in your body. You may be given the contrast material through an intravenous (IV) tube that is put into your vein. You may need to drink an oral contrast material before your CT scan to highlight your stomach and intestines. If oral contrast is given, it usually takes 1 to 2 hours for the oral contrast agent to coat your stomach and intestines.

How Should I Prepare for My CT Exam?
You should inform your care team of any medications you are taking and if you have any allergies, especially to CT contrast or iodine. Also inform your care team of any recent illnesses or other medical conditions, and if you have a history of heart disease, asthma, diabetes, kidney disease, or thyroid problems. Any of these conditions may increase the risk of an unusual adverse effect. Women should always inform their care team if there is any possibility that they are pregnant. Women who are pregnant or think they might be should not have a CT examination unless her doctor feels it is absolutely necessary. Discuss with your referring physician before moving forward with a CT examination. There are potential risks from radiation exposure to you and your unborn baby that may cause birth defects.

CHECK IN:
Please arrive promptly at your provided arrival time. Late arrivals may result in a rescheduled appointment. Allow 1.5 to 3 hours for the exam process.

EATING:
Do not eat for 2 hours prior to the examination. You may have clear liquids before the CT examination. Clear liquids include water, tea, apple juice, clear soda, or clear broth. Please avoid drinking caffeine.

CLOTHING AND JEWELRY:
Do not wear any jewelry including rings, earrings, necklaces, or watches. Wear comfortable clothing free of metal zippers or snaps. Remove anything that might interfere with the CT scan such as eyeglasses, dentures, or hairpins before your scan. You may be asked to remove hearing aids and removable dental work.

CREATININE BLOOD TEST:
This is required within 30 days prior to the CT examination and only for exams with intravenous contrast for the following people:
- Patients who are age 70 years or older
- Patients who are diabetic (insulin and non-insulin dependent types)
- Patients who have a history of renal insufficiency/ kidney masses/single kidney, kidney transplant

If you have a creatinine test done at an outside facility, it is your responsibility to obtain a copy of the result and bring it to the appointment with you.

DIABETIC PATIENTS:
If you take any medication containing metformin and you are scheduled for a CT scan with IV contrast, please consult with the doctor who prescribes your metformin prior to your scheduled appointment.

For more information, go to: http://stanfordhealthcare.org/CT
MRI - Magnetic Resonance Imaging

What is a MRI Scan?
Magnetic Resonance Imaging (MRI)
A magnetic resonance (REZ-oh-nans) imaging scan is usually called an MRI. An MRI does not use radiation (X-rays) and is a noninvasive medical test or examination. The MRI machine uses a large magnet and a computer to take images of the inside of your body. Each image or “slice” shows only a few layers of body tissue at a time. The images can then be examined on a computer monitor. Images taken this way may help your care team find and see problems in your body more easily. The scan usually takes between 15 to 90 minutes. Including the scan, the total examination time usually takes between 1.5 to 3 hours.

What Will Happen during the MRI Examination?
A closed MRI machine is large and looks like a hollow, cylinder-shaped tube surrounded by a circular magnet. Not all athletic wear is safe for MRI. You will be asked to change into a hospital gown and to remove all jewelry, earrings, piercings, or other metal objects including your cell phone. The care team will help you lie on a moveable examination table that slides into the center of the magnet. The body part being tested may be kept in place with a cradle or straps to hold it very still. The technologist and care team will sit behind a window at a computer console during the MRI scan acquisition; however, they will be able to see, hear, and speak with you at all times, thanks to the advanced microphone systems inside the exam and operating console rooms.

You must lie very still during the scan. If you move, the MRI scan images may not be clear. Your primary care physician may order a mild sedative if you are claustrophobic (afraid of closed spaces) or have a hard time staying still. You must have a responsible adult driver with you to be eligible to receive a sedative. You will hear very loud banging noises during the series of scans. The noise is caused by the magnets moving. You will be given earplugs or ear muffs to help soften the noise of the MRI machine.

Some MRI examinations require the administration of intravenous contrast material to help your body part show up better in the pictures. The contrast material is given through an intravenous (IV) tube that is put into your vein.

How Should I Prepare for My MRI Exam?
You should inform your care team if you have food allergies, drug allergies, hay fever, hives, or allergic asthma. Premedication may be or-
dered by your physician if you have a known IV contrast reaction. A driver is also required to accompany you if you have had any pre-medications, as you may be groggy and unable to operate a car or other machinery. Your care team should also know if you have any serious health problems, and any surgeries you have undergone. Women should always inform their physician or technologist if there is any possibility they are pregnant. We will not perform an MRI on a patient during the first trimester (the first 3 months) of pregnancy. If you are breastfeeding at the time of the examination, you should ask your primary care physician or care team how to proceed.

You should not have an MRI if you have anything in your body that a magnet attracts. Items that may interfere with your MRI include:

- Aneurysm clips
- Artificial or prosthetic limbs or joints, such as an artificial knee joint
- Bullets or pieces of shrapnel
- Cochlear (ear) implants
- Heart pacemaker
- Implanted cardiac defibrillator
- Implanted IV ports
- Implanted spinal stimulator
- Implanted medication pumps
- Certain intrauterine devices or “IUDs”
- Pieces of metal fragments in your eyes from welding
- Medication patch: A medication patch is also called a “transdermal” or “skin” patch. Some medication patches may have metal in or on them. Examples of medication patches are nicotine, birth control, and nitroglycerin patches.
- Some metal pins, plates, screws, or surgical staples: In most cases, these things will not cause a problem with an MRI.

CHECK IN:
Please arrive promptly at your provided arrival time. Late arrivals may result in a rescheduled appointment. Allow 1.5 to 3 hours for the exam process.

BREAST SCAN:
Please schedule within 7-12 days of your menstrual cycle. If the request is urgent, this preparation will not be required.

CREATININE BLOOD TEST:
This is required within 30 days prior to the MRI examination and for only exams with intravenous contrast for the following people:

- Patients who are age 70 years or older
- Patients who are diabetic (insulin and non-insulin dependent types)
- Patients who have a history of kidney insufficiency/kidney masses/single kidney

If you have this test done at an outside facility, it is your responsibility to obtain a copy of the result and bring it to the appointment with you.

EATING:
Please confirm with the Radiology Scheduling Center for prep instructions including if your exam includes intravenous contrast. If you are getting intravenous contrast material, which helps your body part show up better in the MRI images, or sedative (SED-ah-tiv) medicine during the examination, you may be asked to not eat solid food for 4 to 8 hours before the examination.

METAL:
Do not wear any jewelry including rings, earrings, necklaces, or watches. For your safety, all patients are required to change into a patient gown as some clothing contains fabrics that have shown to cause excessive heating.

For more information, go to:
http://stanfordhealthcare.org/MRI
Subspecialty Expertise Sets Stanford Radiology Apart

Our radiologists are national experts who are sub-specialty trained in nuclear medicine & molecular imaging, including PET/CT and PET/MR. In addition to excellence in patient care, the Nuclear Medicine and Molecular Imaging Clinic strives to advance science through translational research aimed at improving outcomes of cancer, brain disorders and cardiac disease.

What is Nuclear Medicine?

Nuclear medicine involves the use of small amounts of radioactive materials (or radiopharmaceuticals) to help diagnose and treat a variety of diseases. Nuclear Medicine determines the cause of the medical problem based on the function of the organ or tissue. This is how nuclear medicine differs from an x-ray, ultrasound or any other diagnostic test that determines the presence of disease based on structural appearance.

Is Nuclear Medicine safe?

Nuclear medicine procedures are among the safest diagnostic imaging exams available. A patient only receives an extremely small amount of a radiopharmaceutical, just enough to provide sufficient diagnostic information. In fact, the amount of radiation from a nuclear medicine procedure is comparable to, or often less than that of a diagnostic x-ray.

What are the benefits of Nuclear Medicine?

Nuclear Medicine is a safe, painless, and cost-effective way of gathering information that may otherwise be unavailable or require multiple diagnostic tests. One unique aspect of a nuclear medicine test is its extreme sensitivity to abnormalities in an organ's structure or function. As an integral part of patient care, nuclear medicine is used in the diagnosis, management, treatment and prevention of serious diseases. Nuclear medicine imaging procedures often identify abnormalities very early in the progression of a disease long before some medical problems are apparent with other diagnostic tests. This early detection allows a disease to be treated early in its course when there may be a better prognosis.

Although Nuclear Medicine is commonly used for diagnostic purposes, it also has valuable therapeutic applications such as treatment of hyperthyroidism, thyroid cancer, blood cells imbalances, bony pain from certain types of cancer such as prostate cancer, neuroendocrine tumors and lymphomas.

What is a bone density (DEXA) Scan?

A bone density test, also known as bone mass measurement or bone mineral density test, measures the strength and density of your bones and, when the test is repeated sometime later, can help determine how quickly you are losing bone mass and density. These tests are painless, noninvasive, and safe. They compare your bone density with standards for what is expected in someone of your age, gender, and size, and to the optimal peak bone density of a healthy young adult of the same gender.
Bone density testing can help to:
• Detect low bone density before a fracture occurs.
• Confirm a diagnosis of osteoporosis if you have already fractured.
• Predict your chances of fracturing in the future.
• Determine your rate of bone loss and/or monitor the effects of treatment if the test is conducted at intervals of a year or more.

General Nuclear Medicine Specialized Studies:
• Comprehensive SPECT/CT Imaging
• Cardiac Perfusion SPECT
• DaT Scan (Parkinson Evaluation; motion disorders)
• I-131 Therapy (thyroid cancer and hyperthyroidism)
• Radionuclide Therapy (painful bone metastases (Metastron®, Quadramet®))
• Ra-223 (Xofigo®) therapy for prostate cancer
• Radioimmunotherapy (Zevalin®) for non-Hodgkins Lymphoma
• Lu-177 Octreotate (Luthatera®) for neuroendocrine tumors
• Comprehensive GI Evaluation
• Bone Density Measurements

Ga-68 DOTA TATE PET/CT (Neuroendocrine Tumors PET/CT)
Patient with neuroendocrine tumor. Ga-68 DOTA TATE PET shows focal uptake in the pancreatic tumor (arrowhead) and in small liver metastases (arrowheads).

DaT Scan (Parkinson Evaluation; Motion Disorders)
Left: Normal DaTscan uptake in the basal ganglia. Right: Absent DaTscan uptake in the Putamen. Compatible with Parkinsonian syndromes.

Amyvid Neuraceq PET/CT (Alzheimer Evaluation)
Left: Shows normal brain activity. Right: Scan is consistent with Alzheimer’s disease.

Sodium Fluoride PET/CT (Skeletal PET)
74 year-old man with newly diagnosed prostate cancer. Maximum intensity projection image from F-18 NaF PET shows extensive metastases in the right femur and throughout the pelvic skeletal structures.
What is Positron Emission Tomography (PET)?

PET is a powerful diagnostic test that is having a major impact on the diagnosis and treatment of disease. Because disease is a biological process and PET is a biological imaging examination, PET can detect and stage most cancers, often before they are evident through other tests. PET can also give physicians important early information about heart disease and many neurological disorders, like Alzheimer’s.

A PET scan examines the body's chemistry. Most common medical tests, like CT and MR scans, only show details about the structure of your body. PET provides information about function. With a single PET procedure, physicians can collect images of function throughout the entire body, uncovering abnormalities that might otherwise go undetected.

For example, a PET scan is the most accurate, non-invasive way to tell if a tumor is benign or malignant, sparing patients expensive, often painful diagnostic surgeries and suggesting treatment options earlier during the course of disease. And although cancer spreads silently in the body, PET can inspect all organs of the body for cancer in a single examination! PET can detect extremely small cancerous tumors and very subtle changes of function in the brain and heart. This allows physicians to treat these diseases earlier and more accurately. The earlier the diagnosis, the better the chance for treatment.

PET can be combined with computed tomography (CT) or magnetic resonance imaging (MRI) in PET/CT and PET/MRI scanners to provide functional and anatomical imaging.

Stanford Health Care is the first world-wide to offer the Discovery MI PET/CT.

This new technology ensures exceptional patient benefits. It will allow us to help diagnose and stage disease earlier and better guide treatment strategies.

High resolution whole-body 18F-FDG scan demonstrating exceptional resolution in the spine.

High resolution brain image demonstrating clear differentiation of grey and white matter, to aid in diagnosis of neurological disorders such as epilepsy foci, dementia and metastatic disease.
PET/MR combines the power of 3.0T with advanced PET technology
The simultaneous acquisition of PET and MR data enables new opportunities for clinicians. MR is excellent for imaging soft tissue as well as functional and morphological details. PET enables clinicians to visualize cellular activity and metabolism. This clinical PET/MRI scanner is initially used for evaluation of memory disorders, seizure and brain tumors, with plans to expand the service to nasopharyngeal and other head and neck cancers, as well as early stage cervical, endometrial and rectal cancers.

PET/CT and PET/MR Specialized Studies:
- FDG PET with diagnostic contrast-enhanced CT or MR
- Sodium Fluoride PET/CT (Bone Scan)
- Amyvid®/Neuraceq®/Vizamyl® PET/CT (evaluation for Alzheimer disease)
- Ga-68 DOTA TATE PET/CT (Neuroendocrine tumor PET/CT)
- Cardiac PET Viability & Sarcoid Evaluation
- Comprehensive research program for prostate cancer (PSMA, Bombesin)

The Division of Nuclear Medicine and Molecular Imaging at Stanford HealthCare has state of the art first in the world installed PET/CT and PET/MRI scanners. The combination of cutting edge technology, advanced clinical research and top notch faculty ensures the best patient experience available.

For more information, go to:
What are Diagnostic X-rays (radiographs)?
An X-ray is a diagnostic test which uses invisible electromagnetic energy beams to produce images of internal tissues, bones, and organs onto film. Standard X-rays are performed for many reasons, including diagnosing tumors or bone injuries.

When the body undergoes X-rays, different parts of the body allow varying amounts of the X-ray beams to pass through. The soft tissues in the body (such as blood, skin, fat, and muscle) allow most of the X-ray to pass through and appear dark gray on the film. A bone or a tumor, which is denser than the soft tissues, allows few of the X-rays to pass through and appears white on the X-ray. At a break in a bone, the X-ray beam passes through the broken area and appears as a dark line in the white bone.

Women who are pregnant or think they might be should not have X-ray examination unless her doctor feels it is absolutely necessary. Discuss with your referring physician before moving forward with a X-ray examination. There are potential risks from radiation exposure to you and your unborn baby that may cause birth defects.

For a current listing of Diagnostic X-ray walk-in locations, go to: http://stanfordhealthcare.org/imaging
What Is Fluoroscopy?
Fluoroscopy is a study of moving body structures - similar to an X-ray "movie." A continuous X-ray beam is passed through the body part being examined, and is transmitted to a TV-like monitor so that the body part and its motion can be seen in detail.

Fluoroscopy is used in many types of examinations and procedures, such as barium X-rays, cardiac catheterization, and placement of intravenous (IV) catheters (hollow tubes inserted into veins or arteries). In barium X-rays, fluoroscopy allows the physician to see the movement of the intestines as the barium moves through them. In cardiac catheterization, fluoroscopy enables the physician to see the flow of blood through the coronary arteries in order to evaluate the presence of arterial blockages. For intravenous catheter insertion, fluoroscopy assists the physician in guiding the catheter into a specific location inside the body.

For more information, go to:
http://stanfordhealthcare.org/fluoroscopy
Ultrasound

What is an Ultrasound Exam?
Ultrasonography, which is sometimes called sonography, uses high-frequency sound waves and a computer to create images of blood vessels, tissues, and organs. The sound waves bounce off body parts and send back an image, like sonar on a submarine. A computer then looks at the signals sent back by the sound waves and creates an image of the body using those signals.

Ultrasounds are used to view internal organs as they function, and to assess blood flow through various vessels. Ultrasound procedures are often used to examine many parts of the body such as the abdomen, breasts, female pelvis, prostate, scrotum, thyroid and parathyroid, and the vascular system. During pregnancy, ultrasounds are performed to evaluate the development of the fetus.

What Will Happen During the Ultrasound Exam?
For most ultrasound exams, you will be positioned lying face-up on an examination table that can be tilted or moved. Patients may be turned to either side or on occasion placed in a face down position to improve the quality of the images. After you are positioned on the examination table, the sonographer will apply a warm water-based gel to the area of the body being studied. The gel will help the transducer make secure contact with the body and eliminate air pockets between the transducer and the skin that can block the sound waves from passing into your body. The transducer is placed on the body and moved back and forth over the area of interest until the desired images are captured. There is usually no discomfort from pressure as the transducer is pressed against the area being examined. However, if scanning is performed over an area of tenderness, you may feel pressure or minor pain from the transducer.

How Should I Prepare for My Ultrasound Exam?
You should wear comfortable, loose-fitting clothing for your ultrasound exam. You may need to remove all clothing and jewelry in the area to be examined. You may be asked to wear a gown during the procedure. Preparation for the procedure will depend on the type of examination you will have. For some scans your doctor may instruct you not to eat or drink for as many as 8 hours before your appointment. For others you may be asked to drink 32 ounces of water one hour prior to your exam and avoid urinating so that your bladder is full when the scan begins.

For more information, go to: http://stanfordhealthcare.org/ultrasound
Mammography

**Digital Mammography**
Digital mammography, also called full-field digital mammography (FFDM), uses a low-dose x-ray system to take pictures of the breasts electronically rather than with film. Radiologists read the mammograms for early detection and diagnosis of breast diseases in women. Stanford also uses computer-aided detection (CAD) on the mammograms, which uses a computer program to find cancer.

**Tomosynthesis (“3D” Mammography)**
Improves Cancer Detection, Reduces “Call Backs”

**Frequently Asked Questions**

**What is 3D mammography?**
Tomosynthesis or “3D” mammography is a new type of digital x-ray mammogram which creates 2D and 3D-like pictures of the breasts. This tool improves the ability of mammography to detect early breast cancers, and decreases the number of women “called back” for additional tests for findings that are not cancers.

During a “3D” exam, an X-ray arm sweeps in a slight arc over your breast, taking multiple low dose x-ray images. Then, a computer produces synthetic 2D and “3D” images of your breast tissue. The images include thin one millimeter slices, enabling the radiologist to scroll through images of the entire breast like flipping through pages of a book, and providing more detail than previously possible.

The “3D” images reduce the overlap of breast tissue, and make it possible for a radiologist to better see through your breast tissue on the mammogram.

**Why is there a need for tomosynthesis breast exams? What are the benefits?**
With conventional digital mammography, the radiologist is viewing the tissues of your breast overlapping on flat images. This tissue overlap can sometimes make cancers hard to detect. Also, overlap can sometimes create areas that appear abnormal, but require that you be “called back” for additional tests to determine that cancer is not present (so-called false positives).
Tomosynthesis or “3D” mammography directly addresses the current limitations of standard 2D mammography. Multiple studies have shown that “3D” mammography increases the detection of breast cancer by approximately 25%, and decreases the number of false positive call backs by approximately 15%.

**What is the difference between a screening and diagnostic mammogram?**
A screening mammogram is done in women who have no breast signs symptoms. A diagnostic mammogram is done in women who have been “called back” from a screening mammogram, or who have a clinical breast symptom such as a lump.

**What should I expect during the 3D mammography exam?**
Having a “3D” mammogram is similar to a having conventional digital mammogram, including the amount of compression of the breasts and the time in compression. The main difference is that the X-ray arm sweeps in a slight arc over your breasts.

**Why is compression important in mammography?**
- Decreases radiation dose
- Separates glandular tissue
- Decreases superimposition of tissue
- Improves resolution or clarity of the image
- Increases contrast to visualize subtle differences in tissue
- Reduces scatter radiation

Stanford Breast Imaging
*Dedicated to Improving the Health and Lives of Women*

All major U.S. medical organizations agree that screening mammography saves lives, and that the most lives are saved with mammograms once a year starting at age 40.
Who can have a 3D mammography exam?
It is approved for all women who would be undergoing a standard mammogram, in both the screening and diagnostic settings.

Does 3D mammography have a higher radiation dose?
Because Stanford has invested in software that creates both the synthetic 2D and “3D” images from the same acquisition, the synthetic 2D and “3D” radiation dose is very similar to that of standard 2D digital mammograms in the USA.

For more information, go to:
http://stanfordhealthcare.org/breastimaging
Breast Density

What is breast density?
Breasts are made up of a mixture of fibrous and glandular tissue and fatty tissue. Your breasts are considered dense if you have a lot of fibrous or glandular tissue but not much fat. Density may decrease with age, but there is little, if any, change in most women.

How do I know if I have dense breasts?
Breast density is determined by the radiologist who reads your mammogram. There are four categories of mammographic density. The radiologist assigns each mammogram to one of the categories. Your doctor should be able to tell you whether you have dense breasts based on where you fall on the density scale. (See scale below.)

Radiologists classify breast density using a 4-level density scale:

- Almost entirely fatty
- Scattered areas of fibroglandular density
- Heterogeneously dense
- Extremely dense

Breast density in the U.S. (See pie chart)
- 10% of women have almost entirely fatty breasts
- 10% have extremely dense breasts
- 80% are classified into one of two middle categories

Why is breast density important?
Having dense breast tissue may slightly increase your risk of getting breast cancer. Family history and other risk factors may place you at an increased risk factor for breast cancer other than breast density. Dense breasts also make it more difficult for doctors to spot cancer on mammograms. Dense tissue appears white on a mammogram. Lumps, both benign and cancerous, also appear white. So, mammograms can be less accurate in women with dense breasts.

Are there any tests that are better than a mammogram for dense breasts?
In dense breasts, cancer can be hard to see on a mammogram. Magnetic resonance imaging (MRI) and to a lesser extent, ultrasound can find breast cancers that can’t be seen on a mammogram. However, MRI and ultrasound show findings that are not cancer, which can result in added testing and unnecessary biopsies. Also, the cost of ultrasound and MRI may not be covered by insurance.

What should I do if I have dense breasts? What if I don’t?
If you have dense breasts, please talk to your doctor. Together, you can decide which, if any, additional screening exams are right for you. Whether your breasts are dense or not, other factors may still place you at increased risk for breast cancer — including a family history of the disease, previous chest radiation treatment for cancer and previous breast biopsies that show you are high risk. Talk to your doctor and discuss your history. Even if you are at low risk, and have entirely fatty breasts, you should still get an annual mammogram starting at age 40.
Interventional Radiology

Expertise in Endovascular Treatments and Image-Guided Procedures

Interventional Radiology (IR) is described as the surgery of the new millennium. With the advancement of technology and high-quality imaging equipment, Interventional Radiologists can diagnose and treat patients using the least invasive techniques currently available. This means less risk to the patient and a quicker recovery.

Stanford Interventional Radiology has an international reputation for providing innovative image-guided care to our patients with reduced risks, less pain and a quicker recovery time compared to laparoscopic or open surgery.

We have faculty dedicated to these specific areas:

- Interventional Oncology
- Acute and Chronic Deep Venous Thrombosis
- Peripheral Vascular Disease
- Pulmonary Embolism/IVC filters Placement/Removal
- Women’s Health
- Dialysis Interventions
- Venous Access

Self-referrals are welcome.
Call us to make an appointment:
(650) 724-7362

Email request/appointment:
irprocedure@stanfordhealthcare.org

For more information, go to:
http://stanfordhealthcare.org/interventionalradiology
Radiology Wellness Screening Program

CT Heart Calcium Score
- **Insurance** is excluded; Pay at time of service
- **Self-Pay Pricing**: $150 includes professional & technical fees. Pricing is subject to change without notice.

(Internal Use Only CPT 75571 / IMGCT0024)

CT Virtual Colonoscopy Screening
- **Insurance Coverage**: some private payers may cover CTVC Screenings. Currently Medicare and Tricare do not cover screenings. CTVC Diagnostic exams are covered by most insurance payers.
- **Self-Pay Pricing**: Self-Pay Pricing for eligible patients after 50% discount $1621 (technical & professional fees). Pricing is subject to change without notice.
- Prep materials are a separate charge from exam fees (roughly $100)

(Internal Use Only CPT 74263 / IMGCT0134)

CT Lung Cancer Screening
- **Private Insurance and Covered California**: Under the Affordable Care Act, effective prevention measures – graded A or B- are included in the Essential Health Benefit. Patients who meet the screening criteria will have insurance coverage for screening without co-payments or other barriers starting January 1, 2015.

Centers for Medicare & Medicaid Services (CMS): Covered effective February 5, 2015
- USPSTF Eligibility Guidelines
- CMS age eligibility is age 55-77 years

- **Self-Pay Pricing**: Self-Pay Pricing for eligible patients after 50% discount $418 (technical & professional fees). Pricing is subject to change without notice.

(Internal use Only CPT G0297 / IMGCT0136)

Please contact Patient Financial Services at (800) 549-3720, Monday - Friday 8:00am - 4:00pm
Check your lab results as soon as they're ready

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STANFORD MAIN CAMPUS
Main Hospital
300 Pasteur Drive, Stanford, CA, 94305

EMERYVILLE
Stanford Health Care at Emeryville
5800 Hollis Street, RM 1203, Emeryville, CA 94608

PALO ALTO
Stanford Medicine Imaging Center
451 Sherman Avenue, Palo Alto, CA 94306

PALO ALTO
Stanford Neuroscience Health Center
213 Quarry Road, Palo Alto, CA 9430451

REDWOOD CITY
Stanford Medicine Outpatient Center
450 Broadway Street, Redwood City, CA 94063

SAN JOSE
Cancer Center South Bay
2589 Samaritan Drive, San Jose, CA 95124
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<th>City</th>
<th>Imaging Center</th>
<th>Address</th>
<th>3T MRI</th>
<th>15T MRI</th>
<th>CT</th>
<th>Ultrasound</th>
<th>X-Ray/Walk-In</th>
<th>Mammo (2D &amp; 3D/Tomo)</th>
<th>DEXA/Bone Density</th>
<th>Nuclear Medicine</th>
<th>PET/CT</th>
<th>PET/MR</th>
<th>Fluoroscopy</th>
<th>Musculoskeletal Procedures</th>
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</table>

The table above lists the locations and modalities offered by the Imaging Centers across various cities.

Coming Fall 2019

Stanford Health Care

- Send messages to your care team
- Schedule appointments
- Check lab results
- Review medical history
- View prescriptions
- Pay bills

myhealth.stanfordhealthcare.org
Your appointment is scheduled for:

Date: ______________________
☐ Sun ☐ Mon ☐ Tue ☐ Wed ☐ Thur ☐ Fri ☐ Sat
Time: ______________________

Insurance Inquiries and Pre-Authorization
Available to assist with insurance and/or authorization inquiries. The authorization process will be initiated once the exam is scheduled and may require 5-7 days for PPO.

Patient Financial Clearance
Phone: (650) 724-4445
Toll Free: 1(877) 291-7335
Monday - Friday, 8:00am - 5:00pm

NATIONALLY RECOGNIZED