Diagnostic Imaging & Interventional Radiology

Unsurpassed Quality, Safety, Comfort and Convenience
A crucial first step in addressing any medical concern is accurate diagnosis. Imaging allows doctors to swiftly and effectively pinpoint diagnoses so they can devise appropriate treatment plans. For patients, diagnostic imaging affords peace-of-mind by helping to ensure accuracy and often even ruling out serious health concerns. At HackensackUMC Mountainside, radiologists who are board-certified experts in analyzing and interpreting imaging results and performing interventional radiology procedures work in collaboration with other physicians to ensure that every patient receives the finest coordinated care.

Quality and Convenience

Primary care physicians and specialists are increasingly referring patients to HackensackUMC Mountainside for their imaging and radiology needs. Doctors appreciate the exceptional quality of the outpatient services HackensackUMC Mountainside provides within a comprehensive, full-service hospital capable of seamlessly handling any unexpected needs. Patients also appreciate the convenient, ample parking and extended hours of operation.

Stellar Credentials

The caliber of our imaging center is unsurpassed:

- All of our radiologists are board-certified and they hold subspecialty certifications in many areas of imaging including women’s imaging, pediatrics, neuroradiology, cardiac CT, vascular ultrasound, nuclear medicine and musculoskeletal radiology
- As a hospital-based facility, HackensackUMC Mountainside voluntarily submits to rigorous reviews of its imaging center by the prestigious Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), a credential rarely sought by independent centers. The Center is also inspected annually by the NJ Department of Health and Senior Services while independent imaging facilities are inspected just once upon licensure.

To schedule any diagnostic test or procedure, call the Central Scheduling office at (973) 843-7787 or (877) 523-7757. To expedite the handling of your call, please have prescribing physician and insurance information available.
Comprehensive, State-of-the-Art Technology

HackensackUMC Mountainside offers all the most current diagnostic tools that physicians rely on including:

- CT scans
- MRI
- Ultrasound
- Mammography
- Bone Densitometry
- Nuclear Medicine/ Positron Emission Tomography (PET)
- Interventional Radiology
- Tradition X-Rays

A Patient-Friendly, Stress-Free Atmosphere

For the comfort and convenience of our patients we offer:

- A Central Scheduling office that provides hassle-free scheduling for all outpatient services
- A Pre-Certification/Insurance Verification/Pre-Registration Unit that works with patients, their doctors’ offices and insurance companies to verify insurance benefits and obtain pre-authorization of scheduled tests and procedures
- A helpful, caring staff committed to making your visit as pleasant as possible
- Convenient, ample free parking (with validation) across the street from the Richard F. Harries Pavilion
CT Scans

- HackensackUMC Mountainside is one of a select group of facilities statewide equipped with state-of-art, 128-slice, dual-source CT scanner
- HackensackUMC Mountainside’s high-speed, top-resolution Somatom CT scanner produces vivid, stunning images that are valuable tools for acute care, cardiology, oncology, neurology and other areas of medicine. Enhanced resolution and image clarity help to ensure the accuracy of patient diagnoses
- The radiology team is among a select group nationwide that includes two physicians with the highest, Level III certifications in cardiac CT angiography from the American College of Cardiology
- At HackensackUMC Mountainside, physicians with the medical community’s best specialized imaging credentials will analyze your CT scans and promptly confer with your prescribing physician

About CT Technology

CT scanning is a painless, non-invasive testing method widely used by doctors because it provides the most revealing images of internal organs, bones, soft tissues and blood vessels. Computed tomography (CT) combines special x-ray technology and sophisticated computer technology to create high-speed, cross-section images of the inner workings of the human body. The images are electronically reconstructed to create two and three-dimensional illustrations that can reveal a wide array of medical conditions.
Mammography

- HackensackUMC Mountainside is accredited in mammography by the American College of Radiology
- Our capabilities include:
  - Large field mammography to more effectively screen women with large or dense breasts
  - Digital mammography with computer aided diagnosis
  - Digital mammography stereotactic breast procedures that are minimally invasive alternatives to surgical biopsies
- We also offer breast ultrasound and MRI-guided breast biopsies
- As a full-service hospital, we have immediate access to comprehensive care whenever the treatment of breast cancer or other diseases of the breast is indicated. Our resources include the HackensackUMC Mountainside Cancer Center which is accredited with commendation by the American College of Surgeons

About Mammography

Mammography uses low-dose x-ray technology to detect the presence of breast tumors and distinguish between cancerous and non-cancerous growths. It is commonly recognized as an essential early intervention and diagnostic tool for women. However, it is also used for men with certain symptoms. The American Cancer Society and other respected organizations recommend annual mammograms for all women over the age of 40 for breast cancer prevention and early intervention.
MRI

- Our MRI capabilities include high-field imaging of the brain, spine, neck, joints, abdomen and pelvis
- Our areas of expertise include MRI angiography to examine the heart and other vessels and MR arthrography to examine joints including the knee and hip when standard x-rays are inconclusive
- Our radiology team is skilled in MRCP (magnetic resonance cholangiopancreatography), a non-invasive imaging technique used to visualize the biliary and pancreatic ducts to examine if gallstones are lodged in any of the ducts surrounding the gallbladder

About MRI

MRIs are used in the diagnosis of many, varied conditions and are often requested by physicians to obtain detailed information not already provided by other imaging technologies. Magnetic Resonance Imaging (MRI) employs strong electromagnets, radio frequency waves and powerful computers to generate two- and three-dimensional images of the body’s organs, tissues and bones. Unlike x-rays and CT scans, MRI technology does not require use of radiation.

Images are gathered using a large, tube-shaped magnet that creates a strong magnetic field around the patient. A radio frequency coil is placed over the body part that is to be imaged. The magnetic field and radio frequency waves alter the alignment of hydrogen protons within the body. Using signals emitted from the protons, computers reconstruct images of the body part to be studied.
Additional Surgical Specialties

• We offer ultrasound services for all patient groups and our capabilities include ultrasound-guided biopsies
• For expectant mothers at risk of complications, HackensackUMC Mountainside’s Perinatology Antenatal Testing Unit offers the most sophisticated ultrasound testing available with expert interpretation by physicians who are subspecialists in maternal-fetal medicine

About Ultrasound

Like the x-ray, CT scan and MRI, ultrasound testing is used by the medical community to investigate and diagnose an array of medical conditions. However, there is no radiation exposure associated with ultrasound testing. Ultrasound technology employs high-frequency sound waves to create images of organs and systems within the body. An ultrasound machine sends out sound waves that reflect off body structures. A computer receives the reflected waves and uses them to create pictures.

To conduct an ultrasound, a clear, water-based conducting gel is applied to the skin over the area to be examined to aid transmission of the sound waves. A handheld probe called a transducer is moved over the area being examined.
Bone Density Scan (DXA)

- We offer state-of-the-art bone scan testing to detect the presence of osteoporosis and other conditions that cause bone weakness
- The HackensackUMC Mountainside Bone Health Center can effectively diagnose and treat osteoporosis to prevent painful bone fractures and other medical problems that can result from accidents and falls due to bone fragility

About Bone Densitometry

Bone density scanning, also known as dual-energy, x-ray absorptiometry (DXA) or bone densitometry, is an enhanced form of x-ray technology used to measure bone mineral density (BMD) and loss of bone mass. DXA is most often performed on the lower spine and hips. However, the entire body is sometimes scanned. Body scans are painless, non-invasive procedures with great accuracy in detecting the presence and degree of lost bone mass.
Nuclear Medicine/Positron Emission Tomography (PET)

- The HackensackUMC Mountainside nuclear medicine program encompasses both diagnostic testing and innovative treatment procedures for specific diseases
- Our combined PET/CT scanner is a state-of-the-art tool for oncological imaging and diagnosis

About Nuclear Medicine

Nuclear medicine is a medical imaging specialty that uses radioactive material to diagnose or treat a variety of diseases including many types of cancers and heart disease. Nuclear medicine or radionuclide imaging procedures are noninvasive with the exception of intravenous injections.

The radioactive materials used in nuclear medicine are called radiopharmaceuticals or radiotracers. A radiotracer is either injected into a vein, swallowed or inhaled as a gas and eventually accumulates in the organ or area of the body to be examined, where it gives off energy in the form of gamma rays. The energy is detected by a gamma camera, positron emission tomography (PET scanner) and/or probe. Those devices work in combination with sophisticated computer technology to greater detailed pictures of the structure and function of a human organ or tissues.
Intervention Radiology

- Our experienced, board-certified radiologists are skilled at performing image guided procedures for both the diagnosis and state-of-the-art, minimally invasive treatment of a diverse array of medical conditions.
- The board-certified radiology team at HackensackUMC Mountainside performs peripheral angioplasty to open blockages of vessels that carry blood to the legs and lower body.
- When exploration of conditions linked to the lower back and spine is necessary, subspecialists in neuroradiology are available to perform lumbar puncture and myelography.
- Our capabilities include CT and ultrasound biopsies to determine the presence or extent of cancer. In the event of a cancer finding, our radiologists immediately confer with a multidisciplinary team at HackensackUMC Mountainside’s highly regarded Cancer Center to provide expert insights into the most effective treatment options.
- We also perform procedures for the diagnosis and treatment of women’s health conditions including uterine artery embolization.

About Intervention Radiology

Interventional radiology encompasses various minimally invasive surgical procedures that are performed with the guidance of imaging technology. Some of these procedures are done for purely diagnostic purposes. However, others are actually treatment options that afford patients reduced risk of complications, less pain and shorter recovery times when compared to other treatment alternatives for the same medical concerns. Interventional procedures usually involve the use of needles, small tubes called catheters or other tiny instruments. Radiology images provide a “road map” that allows a radiologist to guide the small instrument through the body to the area of study or treatment. Most interventional radiology procedures can be safely performed on an outpatient basis.
X-Rays

- HackensackUMC Mountainside offers digital x-ray, digital radiography and fluoroscopy

About X-Ray Technology

Traditional medical x-ray technology (radiography) uses electromagnetic waves to capture interior images of the human body. It has been used by the medical community since the invention of the x-ray machine in 1895. Modern day x-ray equipment offers significantly improved quality and safety. X-rays remain a valuable, time-tested diagnostic tool for certain medical conditions and are often a “first step” in the diagnostic process.
Diagnostic Imaging and Patient Safety

Some of the imaging technology devices which have revolutionized the medical community’s ability to effectively diagnose and treat many, diverse conditions rely on the use of ionizing radiation. Exposure to small amounts of radiation for essential medical tests is not considered hazardous. However, patients are now encouraged to keep track of their long-term cumulative history of medical procedures that involve radiation. The website www.xrayrisk.com is an excellent resource to help you understand the level of risk and exposure.

- Patient safety is paramount at HackensackUMC Mountainside
- Our board-certified radiologists and technologists adhere to the highest safety standards
- We employ state-of-the-art technologies to minimize and regulate radiation exposure
- Our safety procedures are subject to rigorous, independent reviews in conjunction with our accreditations by the American College of Radiology (ACR) and the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), as well as our licensure by the NJ Department of Health and Human Services
- Our radiologists and imaging center staff are available to answer all patient safety questions regarding tests and procedures performed at HackensackUMC Mountainside
Helpful Information for Patients

- Follow carefully any instructions provided before and during testing
- Wear comfortable, loose-fitting clothing since patients remain clothed for many imaging tests
- Arrive promptly for your appointment to allow time for check-in and registration
- Free parking is available across the street from Harries Pavilion. (A free token will be provided at the information desk upon return of your badge)
- Don’t hesitate to speak with our helpful staff if you have any questions
- Call the Central Scheduling office if you are unable to keep an appointment
To schedule any diagnostic test or outpatient procedure, call the Central Scheduling office at (973) 873-7787 or (877) 523-7787. To expedite the handling of your call, please have processing physician and insurance information available.

At HackensackUMC Mountainside, world-class physicians treat a wide range of medical conditions using state-of-the-art technology. Patients have immediate access to innovative and effective treatment alternatives at specialized centers within the hospital that focus on women’s health, cancer care, cardiac care, obesity, surgery, stroke, chronic kidney disease and other needs.

Visit www.mountainsidehosp.com
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