Echocardiography

- Two-dimensional imaging of the cardiovascular system
- Accurate assessment of the velocity of blood, cardiac tissue and cardiac valves
- Visualizes leaking of blood through the valves (valvular regurgitation)
- Measures cardiac output, as well as ejection fraction

Musculoskeletal Ultrasound

Diagnostic Injections

- An injection of a long and short acting anesthetic allows for the determination of the source of the patient’s pain

Therapeutic Injections

- An anesthetic, along with a corticosteroid, is injected into the region of interest
- Steroids decrease the production of cytokines and subsequently decrease the pain sensation in the joint, tendon sheath or bursa
- Therapeutic injections for the shoulder, foot, ankle and hip
Ultrasound

Zwanger-Pesiri Radiology provides the latest ultrasound (sonography) equipment at each of our offices. Ultrasound is safe and painless, and does not expose you to radiation. It involves using high-frequency sound waves to produce pictures of inside the body. Because ultrasound images are captured in real-time, they can show the structure and movement of the body’s internal organs, as well as blood flowing through the blood vessels.

**Abdominal & Pelvic Ultrasound**
- Evaluates the liver, gallbladder, spleen, pancreas and kidneys
- Accesses blood flow in the abdominal aorta
- Images organs in the pelvis, such as the bladder and prostate

**Ob/Gyn & Breast Ultrasound**
- Used to visualize the embryo or fetus in the uterus, without the use of radiation
- Used in conjunction with mammography and other breast imaging studies for a complete diagnostic evaluation

**Color Flow Doppler**
- Evaluates blood as it flows through the blood vessels, including the body’s major arteries and veins in the abdomen, arms, legs and neck

MRI/PET

- Simultaneous acquisition of whole body MRI and PET improves the ability to detect, characterize, stage and treat disease
- Reduces radiation exposure for patients compared to PET/CT
- 3.0 Tesla magnet, combined with the industry’s largest PET field-of-view, allows for faster scanning with improved lesion identification
- Decreases acquisition times with two scans in one

**Oncology**
- Improves the detection of primary cancers and metastases

**Neurology**
- Improves the detection of brain tumors that can be underestimated on PET/CT
- Detects and monitors neurodegenerative diseases such as Alzheimer’s

**Pediatrics**
- Minimizes radiation dose exposure
- Easier scans with less time in the office
Zwanger-Pesiri Radiology is the leader in MRI on Long Island with 26 units, more than any hospital or outpatient radiology center. Our 3.0 and 1.5 Tesla MRI systems provide a level of detail and clarity never before possible. All of our MRI systems are designed to maximize patient comfort and ease claustrophobia.

MRI allows us to detect and diagnose ailments in the body without the use of radiation. Instead, MRI uses magnetism and radio waves to produce remarkably clear images of tissues throughout the body. MRI is particularly useful for studying the brain and spine, as well as muscles, ligaments, joints and tendons. MRI may also be performed to evaluate internal organs such as the heart, liver, kidneys, prostate and breasts.

### 3.0 Tesla Wide/short Bore MRI
- 2.3 foot wide opening
- Accommodates patients up to 550 lbs
- Studies as short as 10 minutes
- Often identifies the tiniest abnormalities frequently missed by other MRI units
- 3.0 Tesla means five times the resolution or five times the speed of any Stand-Up MRI
- 3.0 Tesla means ten times the resolution or ten times the speed of all outdated open sided MRI units

### Fluoroscopy
- Provides real-time moving imaging that is especially useful for guiding a variety of diagnostic and interventional procedures
- Investigates the gastrointestinal tract, including esophagrams and small bowel series

### Upper GI Series (Esophagram & Small Bowel Series)
- Images the esophagus, stomach and small intestine
- Barium drink outlines the upper gastrointestinal tract
- Diagnoses ulcers and acid reflux
- Investigates uncontrollable vomiting and unexplained blood in the stool
Wilhelm Conrad Roentgen’s discovery of X-rays in 1895 allowed us to see inside the human body for the first time and has since been a great benefit to medicine. Now with over one hundred years of advancements, we are proud to offer the most modern digital X-ray technology currently available.

1.5 Tesla Wide/Short Bore MRI
- 2.3 foot wide opening
- No squeezing the stomach or pressing the shoulders together
- Head remains outside the magnet for 70% of studies
- Five times the resolution or five times the speed of all outdated open sided MRI units that are still in use today

I.V. Sedation
- Allows children and severely claustrophobic or anxious adults to be scanned without any motion
- Board certified anesthesiologists
- PALS (Pediatric Advanced Life Support) certified
- Affordable patient transportation service available

Digital X-ray at Zwanger-Pesiri
- The latest digital X-ray systems in every office
- No appointment necessary
- Highly-trained radiologic technologists
- Careful patient positioning reduces any unnecessary radiation
- Extremely flexible units
- Same precision for recumbent, seated and upright patients
- No need to hold an uncomfortable position for a long period of time
- Table holds up to 495 lbs
- Allows us to X-ray children fast and easily

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Zwanger-Pesiri Radiology is dedicated to providing Long Island with the latest CT technology for the most reliable diagnosis with the least amount of radiation. CT combines a series of X-ray views taken from many different angles to produce cross-sectional images of the bones and soft tissues inside the body. The wide range of clinical applications for CT has revolutionized areas such as cardiology, neurology, orthopedics and oncology.

**Low-dose CT**
- Unprecedented resolution and speed
- Each CT scan is tailored to minimize any radiation to the patient
- Detailed imaging of bones, cancers, blood clots, heart disease and internal bleeding
- Offers improved characterization of tumors in diagnostic oncology
- Coronary CT Angiography pinpoints cardiovascular disease early and noninvasively

**SPECT Nuclear Medicine**
*Single-Photon Emission Computed Tomography*

Nuclear Medicine imaging is unique because it provides doctors with information about both the structure and function of virtually every major organ. Very small amounts of radioactive materials (radiopharmaceuticals) are used to diagnose and treat disease. Nuclear Medicine is commonly used to evaluate the thyroid, brain, bones, lungs, heart, liver and gallbladder.

**Benefits of Nuclear Medicine**
- Determines the presence or spread of cancer
- Evaluates bones for fracture, infection, arthritis and tumors
- Analyzes kidney function
- Measures thyroid function
- Visualizes blood flow and heart function
- Identifies blockages in the gallbladder
-Locates the presence of infection

**Nuclear Cardiology**

**Myocardial Perfusion Stress Test**
- Shows if the heart is receiving adequate blood supply under stress and during rest
- Detection of coronary artery disease

**MUGA/Cardiac Blood Pool**
- Evaluates the function of the heart, measured by ejection fraction
PET/CT
*Positron Emission Tomography/Computed Tomography*

PET/CT combines the power of advanced molecular imaging provided by PET with detailed anatomical imaging provided by CT. Physicians can pinpoint the location of cancer within the body before making treatment recommendations. PET/CT assists in detecting cancer before structural changes become apparent and has revolutionized oncology, surgical planning, radiation therapy, and cancer staging.

**Benefits of PET/CT**
- Early diagnosis of disease with accurate staging and restaging
- Determines the location of disease for treatment planning, a biopsy procedure or surgery
- Assesses effectiveness of treatments
- Differentiates between malignant and benign tumors
- Detects residual or recurrent disease
- Diagnoses Alzheimer’s disease

**Molecular Imaging**

**PET/CT**

**Our Pledge**

Following the ALARA principle (As Low As Reasonably Achievable), each patient is exposed to the minimum amount of radiation needed to form an accurate diagnosis.

**SAFIRE Dose Reduction Software**

This new CT software significantly reduces radiation exposure and improves image quality, surpassing most CT systems that are in use today. This novel technique uses a highly complex computer algorithm to minimize graininess which results from imaging at a very low dose.

**Dose Information**

Your radiation dose will be specified in the report and incorporated into your medical record. It is a good idea to keep a record of your past history of radiation exposure so that you can inform your physician.
Women’s Imaging

3D Breast Tomosynthesis
- Performed at the same time as a mammogram for a more comprehensive study
- Shown in studies to be superior to mammography alone with a higher cancer detection rate
- Provides a clearer look through overlapping breast tissue, especially in dense breasts
- Reduces false-positive and false-negative findings
- Fewer patients are called back for additional images

Digital Mammography
- Can detect breast cancer up to two years before an abnormality can be felt
- State-of-the-art units at every office
- Computer-Assisted Detection (CAD) helps the radiologist find lesions
- Fellowship trained radiologists specializing in Breast Imaging

Breast Ultrasound
- Uses high-frequency sound waves to produce pictures of inside the body, without the use of ionizing radiation
- Detects small cancers that may not be visible with mammography, especially in dense breasts
- Helps determine whether a nodule is a solid mass or a cyst

Breast MRI
- Screens women at high risk and with dense breasts
- Evaluates hard-to-assess abnormalities seen on mammography
- Determines the extent of cancer after a new diagnosis

Breast Biopsy
- A tiny sample is removed and analyzed by a board certified pathologist to determine if it is malignant or benign
- Guided by X-ray (stereotactic), ultrasound and MRI
- The know error® DNA matching system ensures that there are no mix-ups with the biopsy samples

BRCA Genetic Test
- Risk assessment for Hereditary Breast and Ovarian Cancer syndrome
- Performed on-site using the “swish and spit” method with no blood drawn

Hysterosalpingography
- Fluoroscopy study that examines the uterus and patency of the fallopian tubes

Hysterosonography
- Ultrasound study used for detecting problems in the uterus or fallopian tubes

DXA Bone Density
- Measures the density of the bones and assists in diagnosing osteoporosis