



Steinberg Diagnostic Medical Imaging Centers

"Where Imaging Revolves Around You"™

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NUCLEAR MEDICINE

Patient information guide :

Thank you for choosing **Steinberg Diagnostic Medical Imaging Centers** to perform your **NUCLEAR MEDICINE** examination. We realize you may have questions regarding your upcoming exam and hope this information will help explain the procedure to you. If you have further questions, feel free to call our office At (702) 732 - 6000.

What is NUCLEAR MEDICINE?

Nuclear medicine is a branch of radiology that uses radioactive materials to determine if certain organs such as the heart, kidneys, liver, thyroid, brain and lungs are working properly. It is also used to examine the bones for cancer, infection or trauma.

Common uses of this procedure.

A 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 disease. 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 test. This early detection allows a disease to be treated early in its course when there may be a more successful prognosis.

Although nuclear medicine is commonly used for diagnostic purposes, it also has valuable therapeutic applications such as treatment of hyperthyroidism, thyroid cancer, blood imbalances, and pain relief from certain types of bone cancer.

How does it work?

Before the test begins you will be given a small amount of radioactive material called a radioisotope, this will be injected or swallowed. There should be little or no discomfort involved in the test. Nuclear medicine procedures are safe, effective and painless.

How the test is performed depends on the type of scan your physician has ordered. In many cases there will be a delay between the time you are given the isotope and the time the scan is actually made. This allows the isotope time to flow through the body and concentrate in the organ that is being examined. In some cases, a series of scans will be taken with a delay of an hour or two between them.

By tracking the isotope as it moves through the organ, it can give your doctor invaluable information about how a specific bodily organ is working.

In most studies the patient lies comfortably on a table. A large camera is positioned over the body and is moved or rotated around the patient depending on the test. The camera senses the radioactive substance and highlights and displays this information on a screen or film.

Benefits VS risks of a Nuclear Medicine procedure?

BENEFITS	RISKS
Nuclear medicine is a safe, painless, and cost-effective way of gathering information that may otherwise be unavailable or require more expensive and risky diagnostic test	
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 test. This early detection allows a disease to be treated early in its course when there may be a more successful prognosis.	
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 times less than, that of a diagnostic x-ray.	

Patient Comfort.

Unless your doctor advises otherwise, you may resume normal diet and activities immediately.

Preparation required.

There is no general set of instructions for all nuclear medicine examinations. Your physician will give you instructions on how to prepare for the exam. It is important to follow these instructions to ensure the most accurate diagnostic results. Nuclear Medicine studies are not recommended for pregnant women or nursing mothers.

After the test.

The patient may leave immediately following the exam because the Nuclear Medicine has no side effects.

Results of the test

At **SDMI**, we have a radiologist on site at all times so the test will be interpreted promptly. The results will be phoned, faxed, mailed, or delivered electronically to the referring physician. He/she will share the results with the patient.

I am ready to schedule an appointment (requirements for appointment)

To schedule a NUCLEAR MEDICINE PROCEDURE with SDMI, please call 732 – 6000

A Partial List of Why Physicians Order Nuclear Medicine Studies

Neurologic Applications:

- Diagnose Stroke
- Diagnose Alzheimer's Disease
- Demonstrate Changes in AIDS Dementia
- Evaluate Patients for Carotid Surgery
- Localize Seizure Foci
- Evaluate Post Concussion Syndrome
- Diagnose Multi-Infarct Dementia

Oncologic Applications:

- Tumor Localization
- Tumor Staging
- Identify Metastatic Sites
- Judge Response to Therapy
- Relieve Bone Pain Caused by Cancer

Orthopedic Applications:

- Identify Occult Bone Trauma (Sports Injuries)
- Diagnose Osteomyelitis
- Evaluate Arthritic Changes and Extent
- Localize Sites for Biopsy in Tumor Patients
- Measure Extent of Certain Tumors
- Identify Bone Infarcts in Sickle Cell Disease

Renal Applications:

- Detect Urinary Tract Obstruction
- Diagnose Renovascular Hypertension
- Measure Differential Renal Function
- Detect Renal Transplant Rejection
- Detect Pyelonephritis
- Detect Renal Scars

Cardiac Applications:

- Diagnose Coronary Artery Disease
- Measure Effectiveness of Bypass Surgery
- Measure Effectiveness of Therapy for Heart Failure
- Detect Heart Transplant Rejection
- Select Patients for Bypass or Angioplasty
- Identify Patients at High Risk of Heart Attacks going to Surgery for Other Reasons
- Identify Right Heart Failure
- Measure Chemotherapy Cardiac Toxicity
- Evaluate Valvular Heart Disease
- Identify Shunts and Quantify Them

- Diagnose and Localize Acute Heart Attacks Before Enzyme Changes

Pulmonary Applications:

- Diagnose Pulmonary Emboli
- Detect Pulmonary Complications of AIDS
- Quantify Lung Ventilation and Perfusion
- Detect Lung Transplant Rejection
- Detect Inhalation Injury in Burn Patients

Other Applications:

- Diagnose and Treat Hyperthyroidism (Grave's Disease)
- Detect Acute Cholecystitis
- Detect Acute Gastrointestinal Bleeding
- Detect Testicular Torsion
- Detect Occult Infections
- Diagnose and Treat Blood Cell Disorders
- See Patient Information for more details on specific nuclear medicine procedures.