



REGISTRATION INFORMATION

PATIENT INFORMATION (PLEASE USE FULL LEGAL NAME)

Last: _____ First: _____ MI: _____ Sex: _____
Address: _____
City: _____ State: _____ Zip: _____
Home Phone: _____ Other Phone: _____ DOB: _____
Social Security#: _____ Marital Status: Married Single Divorced Widowed
Employer: _____ Job Title: _____
Employer Address: _____ Work Phone: _____
Emergency Contact Name: _____
Emergency Contact Phone number: _____

RESPONSIBLE PARTY INFORMATION

Last: _____ First: _____ Relationship to Patient: _____
Address: _____ Social Security #: _____
DOB: _____ Employer: _____
Employer Address: _____ Phone Number: _____

INSURANCE INFORMATION

On the job injury: _____ Motor Vehicle Accident: _____

Primary Insurance

Insurance Company: _____ Address: _____
City: _____ State: _____ Zip: _____ Phone: _____
Policy Holder: _____ Policy #: _____ Group Number: _____
Adjuster: _____

Secondary Insurance

Insurance Company: _____ Address: _____
City: _____ State: _____ Zip: _____ Phone: _____
Policy Holder: _____ Policy #: _____ Group Number: _____

RELEASE OF INFORMATION AND PAYMENT AUTHORIZATION

I authorize the release of information necessary to process this claim and assign benefits payable for services directly to Envision Imaging. I authorize the release of any medical information necessary for treatment by my current or future physician or healthcare provider. I authorize Envision Imaging to release to my insurance company any medical information which may be necessary to process my insurance claim. I understand that in the event my insurance company denies this claim I will be held financially responsible for all charges. I acknowledge that I have received a copy of Envision Imaging's Privacy Notice.

Initials _____

Signed: _____ Date: _____



NUCLEAR MEDICINE PATIENT HISTORY

PATIENT: _____ DOB: _____ MRN: _____

EXAM DATE: _____ REFERRING PHYSICIAN: _____

DIAGNOSIS: _____

DOSE: _____

INJECTION LOCATION: _____

SURGERIES OF AFFECTED AREA(S) WITH DATES: _____

TRAUMA TO AFFECTED AREA(S) WITH DATES: _____

AREA(S) OF PAIN: _____

CANCER HISTORY: Y N

IF SO, INDICATE TYPE: _____

GENERAL MEDICAL HISTORY: _____

INJECTING TECHNOLOGIST: _____

PERFORMING TECHNOLOGIST: _____

NUCLEAR MEDICINE THYROID HISTORY

PATIENT: _____ DOB: _____ MRN: _____

EXAM DATE: _____ REFERRING PHYSICIAN: _____

DIAGNOSIS: _____

1) DOSE: _____ UCI I-123

2) RECENT THYROID MEDICATIONS?
(Cytomel, Synthroid, Levothyroid, PTU, etc...) Y N

3) RECENT IODINE CONTRAST STUDY? Y N

4) PLEASE CHECK ANY APPLICABLE SIGN OR SYMPTOM.

- | | |
|---|--|
| <input type="checkbox"/> Prior thyroid surgery | <input type="checkbox"/> Nervousness |
| <input type="checkbox"/> Weight gain / loss | <input type="checkbox"/> Thyroid tenderness |
| <input type="checkbox"/> Goiter or enlarged thyroid | <input type="checkbox"/> Exophthalmia |
| <input type="checkbox"/> Abnormal lab work _____ | <input type="checkbox"/> Heart palpitations |
| <input type="checkbox"/> Heat intolerance | <input type="checkbox"/> Skin dryness |
| <input type="checkbox"/> Tiredness | <input type="checkbox"/> Difficulty swallowing |

5) TECHNOLOGIST PERFORMING EXAM _____

RadiologyInfo.org

The radiology information resource for patients

Thyroid Scan and Uptake

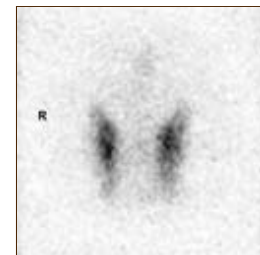
What is a Thyroid Scan and Uptake?

A thyroid scan is a type of nuclear medicine imaging. The radioactive iodine uptake test (RAIU) is also known as a thyroid uptake. It is a measurement of thyroid function, but does not involve imaging.

Nuclear medicine is a branch of medical imaging that uses small amounts of [radioactive](#) material to diagnose and determine the severity of or treat a variety of diseases, including many types of cancers, heart disease, gastrointestinal, endocrine, neurological disorders and other abnormalities within the body. Because nuclear medicine procedures are able to pinpoint molecular activity within the body, they offer the potential to identify disease in its earliest stages as well as a patient's immediate response to therapeutic interventions.

Nuclear medicine imaging procedures are noninvasive and, with the exception of intravenous injections, are usually painless medical tests that help physicians diagnose and evaluate medical conditions. These imaging scans use radioactive materials called [radiopharmaceuticals](#) or [radiotracers](#).

Depending on the type of nuclear medicine exam, the radiotracer is either injected into the body, swallowed or inhaled as a gas and eventually accumulates in the organ or area of the body being examined. Radioactive emissions from the radiotracer are detected by a special camera or imaging device that produces pictures and provides molecular information.



The thyroid scan and thyroid uptake provide information about the structure and function of the thyroid. The thyroid is a gland in the neck that controls [metabolism](#), a chemical process that regulates the rate at which the body converts food to energy.

What are some common uses of the procedure?

The thyroid scan is used to determine the size, shape and position of the thyroid gland. The thyroid uptake is performed to evaluate the function of the gland. A whole-body thyroid scan is typically performed on people who have or had thyroid cancer.

A physician may perform these imaging tests to:

- determine if the gland is working properly
- help diagnose problems with the thyroid gland, such as an overactive thyroid gland, a condition called [hyperthyroidism](#), cancer or other growths
- assess the nature of a nodule discovered in the gland

- detect areas of abnormality, such as lumps (nodules) or inflammation
- determine whether thyroid cancer has spread beyond the thyroid gland
- evaluate changes in the gland following medication use, surgery, radiotherapy or chemotherapy

How should I prepare?

You may be asked to wear a gown during the exam or you may be allowed to wear your own clothing.

Women should always inform their physician or technologist if there is any possibility that they are pregnant or if they are breastfeeding. See the [Safety page \(www.RadiologyInfo.org/en/safety/\)](http://www.RadiologyInfo.org/en/safety/) for more information about pregnancy and breastfeeding related to nuclear medicine imaging.

You should inform your physician and the technologist performing your exam of any medications you are taking, including vitamins and herbal supplements. You should also inform them if you have any allergies and about recent illnesses or other medical conditions.

You should tell your physician if you:

- have had any tests, such as an x-ray or CT scan, surgeries or treatments using iodinated contrast material within the last two months.
- are taking medications or ingesting other substances that contain [iodine](#), including kelp, seaweed, cough syrups, multivitamins or heart medications.
- have any allergies to iodine, medications and anesthetics.
- are breastfeeding.

In the days prior to your examination, blood tests may be performed to measure the level of thyroid hormones in your blood. You may be told not to eat for several hours before your exam because eating can affect the accuracy of the uptake measurement.

Jewelry and other metallic accessories should be left at home if possible, or removed prior to the exam because they may interfere with the procedure.

You will receive specific instructions based on the type of scan you are undergoing.

What does the equipment look like?

Nuclear medicine procedures are performed using either single or dual head gamma camera.

The gamma camera, which is encased in metal, is capable of detecting radiation and taking pictures from different angles. A gamma camera does not emit any radiation. It may be suspended over the examination table or it may be beneath the table.

A computer aids in creating the images from the data obtained by the camera or scanner.

A probe is a small hand-held device resembling a microphone that can detect and measure the amount of the radiotracer in a small area of your body.

How does the procedure work?

With ordinary [x-ray](#) examinations, an image is made by passing x-rays through the body from an outside source. In contrast, nuclear medicine procedures use a radioactive material called a radiopharmaceutical or radiotracer, which is injected into your bloodstream, swallowed or inhaled as a gas. This radioactive material accumulates in the organ or area of your body being examined, where it gives off a small amount of energy in the form of gamma rays. A gamma camera, PET scanner, or probe detects this energy and with the help of a computer creates pictures offering details on both the structure and function of organs and tissues in your body.

How is the procedure performed?

Nuclear medicine imaging is usually performed on an outpatient basis, but is often performed on hospitalized patients as well.

Thyroid Scan

A radiotracer is taken by mouth, in capsule form and it is typically swallowed up to 24 hours before the scan.

When it is time for the imaging to begin, you will lie down on a moveable examination table with your head tipped backward and neck extended. The [gamma camera](#) will then take a series of images, capturing images of the thyroid gland from three different angles. You will need to remain still for brief periods of time while the camera is taking pictures.

When the examination is completed, you may be asked to wait until the technologist checks the images in case additional images are needed. Occasionally, more images are obtained for clarification or better visualization of certain areas or structures. The need for additional images does not necessarily mean there was a problem with the exam or that something abnormal was found, and should not be a cause of concern for you.

If you had an intravenous line inserted for the procedure, it will usually be removed unless you are scheduled for an additional procedure that same day that requires an intravenous line.

Actual scanning time for a thyroid scan is 30 minutes or less.

Thyroid Uptake

You will be given radioactive iodine (I-123 or I-131) in liquid or capsule form to swallow. The thyroid uptake will begin several hours to 24 hours later. Often, two separate uptake measurements are obtained at different times. For example, you may have uptake measurements at four to six hours and 24 hours.

When it is time for the imaging to begin, you will sit in a chair facing a stationary [probe](#) positioned over the thyroid gland in the neck.

When the examination is completed, you may be asked to wait until the technologist checks the images in case additional images are needed. Occasionally, more images are obtained for clarification or better visualization of certain areas or structures. The need for additional images does not necessarily mean there was a problem with the exam or that something abnormal was found, and should not be a cause of concern for you.

Actual scanning time for each thyroid uptake is five minutes or less.

What will I experience during and after the procedure?

Most thyroid scan and thyroid uptake procedures are painless. However, during the thyroid scan, you may feel uncomfortable when lying completely still with your head extended backward while the gamma camera is taking images.

When swallowed, the radiotracer has little or no taste.

It is important that you remain still while the images are being recorded. Though nuclear imaging itself causes no pain, there may be some discomfort from having to remain still or to stay in one particular position during imaging.

Unless your physician tells you otherwise, you may resume your normal activities after your nuclear medicine scan. If any special instructions are necessary, you will be informed by a technologist, nurse or physician before you leave the nuclear medicine department.

Through the natural process of radioactive decay, the small amount of radiotracer in your body will lose its radioactivity over time. It may also pass out of your body through your urine or stool during the first few hours or days following the test. You should also drink plenty of water to help flush the radioactive material out of your body as instructed by the nuclear medicine personnel.

Who interprets the results and how do I get them?

A radiologist or other physician who has specialized training in nuclear medicine will interpret the images and forward a report to your referring physician.

What are the benefits vs. risks?

Benefits

- Nuclear medicine examinations offer information that is unique—including details on both function and structure—and often unattainable using other imaging procedures.
- For many diseases, nuclear medicine scans yield the most useful information needed to make a diagnosis or to determine appropriate treatment, if any.
- Nuclear medicine is less expensive and may yield more precise information than exploratory surgery.

Risks

- Because the doses of radiotracer administered are small, diagnostic nuclear medicine procedures result in relatively low radiation exposure to the patient, acceptable for diagnostic exams. Thus, the radiation risk is very low compared with the potential benefits.
- Nuclear medicine diagnostic procedures have been used for more than five decades, and there are no known long-term adverse effects from such low-dose exposure.
- The risks of the treatment are always weighed against the potential benefits for nuclear medicine therapeutic procedures. You will be informed of all significant risks prior to the treatment and have an opportunity to ask questions.
- Allergic reactions to radiopharmaceuticals may occur but are extremely rare and are usually mild. Nevertheless, you should inform the nuclear medicine personnel of any allergies you may have or other problems that may have occurred during a previous nuclear medicine exam.
- **Women should always inform their physician or radiology technologist if there is any possibility that they are pregnant or if they are breastfeeding. See the [Safety page \(www.RadiologyInfo.org/en/safety/\)](http://www.RadiologyInfo.org/en/safety/) for more information about pregnancy, breastfeeding and nuclear medicine exams.**

What are the limitations of the Thyroid Scan and Uptake?

The thyroid scan and thyroid uptake are not performed on patients who are pregnant because of the risk of exposing the fetus to radiation. These tests are also not recommended for breastfeeding women.

Nuclear medicine procedures can be time consuming. It can take hours to days for the radiotracer to accumulate in the part of the body under study and imaging may take up to several hours to perform, though in some cases, newer equipment is available that can substantially shorten the procedure time.

The resolution of structures of the body with nuclear medicine may not be as high as with other imaging techniques, such as CT or MRI. However, nuclear medicine scans are more sensitive than other techniques for a variety of indications, and the functional information gained from nuclear medicine exams is often unobtainable by other imaging techniques.

Additional Information and Resources

RadiologyInfo

[Head and Neck Cancer](#)

(www.RadiologyInfo.org/en/info.cfm?pg=hdneck)

RTAnswers.org

[Radiation Therapy for Head and Neck Cancer](#)

(www.rtanswers.org/treatmentinformation/cancertypes/headneck/index.aspx)

Locate an ACR-accredited provider: To locate a medical imaging or radiation oncology provider in your community, you can search the [ACR-accredited facilities](#) database.

This website does not provide costs for exams. The costs for specific medical imaging tests and treatments vary widely across geographic regions. Many—but not all—imaging procedures are covered by insurance. Discuss the fees associated with your medical imaging procedure with your doctor and/or the medical facility staff to get a better understanding of the portions covered by insurance and the possible charges that you will incur.

Web page review process: This Web page is reviewed regularly by a physician with expertise in the medical area presented and is further reviewed by committees from the American College of Radiology (ACR) and the Radiological Society of North America (RSNA), comprising physicians with expertise in several radiologic areas.

Outside links: For the convenience of our users, *RadiologyInfo.org* provides links to relevant websites. *RadiologyInfo.org*, ACR and RSNA are not responsible for the content contained on the web pages found at these links.

Images: Images are shown for illustrative purposes. Do not attempt to draw conclusions or make diagnoses by comparing these images to other medical images, particularly your own. Only qualified physicians should interpret images; the radiologist is the physician expert trained in medical imaging.

This page was reviewed on March 28, 2013

Radiological Society of North America, Inc. (RSNA)