



Patient Education
Nuclear Medicine



What you should know about your **Bone Scan SPECT**

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. A bone scan SPECT is performed to assess bone abnormalities, particularly within the spine.

Preparation:

None

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- We will verify your name, date of birth and exam you will be having done.
- We will take a brief history relating to your health.
- An injection of a radioactive material will be given in a vein or through an IV started in the arm.
- There are no reactions or side effects to this material.
- The patient will be asked to return for imaging 3-4 hours after the injection.
- Eating and drinking is permitted and the patient should drink plenty of extra fluids before returning.
- Upon returning, the nuclear medicine technologist will ask the patient to empty his/her bladder.
- The patient will be lying on an imaging table with a camera above and below. The patient will be asked to
 lie still while images are acquired.
- The camera will move slowly, taking images from head to toe, unless otherwise specified by the ordering physician.
- Specialized pictures will then be taken with the camera rotating around the area of concern.
- The scan will take approximately 1 ½ hours.

After the Test:

- No reactions or precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

(717) 851-4624 Imaging Department Phone Number:



Imaging Patient Education

What you should know about your *Three Phase Bone Scan*.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. A three-phase bone scan is performed to assess abnormalities within the bone such as old vs. new fractures and infection occurring within the soft tissue and bones.

Preparation:

None

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- We will verify your name, date of birth and exam you will be having done.
- We will take a brief history relating to your health.
- An injection of a radioactive material will be given in a vein or through an IV started in the arm. Images of blood flow will be taken as the injection is given. Total time for this part of the test is 15-30 minutes.
- There are no reactions or side effects to this material.
- Patients will return for images approximately 3-4 hours after injection.
- You will lie down for your exam with a camera above and below you.
- The cameras will move slowly, taking images from head to toe, unless otherwise specified by the ordering physician.
- The images will take approximately one hour.
- Eating is permitted and the patient should drink plenty of extra fluids before returning.
- Upon returning, the nuclear medicine technologist will ask you to empty your bladder.
- Additional images may be taken of the area of concern.

After the Test:

- No reactions or precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear Medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



What you should know about your **Bone Scan.**

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. Nuclear medicine bone scans can help detect a wide variety of conditions occurring within the bone. These include, but are not limited to, fracture, infection, bone cancer and arthritis.

Preparation:

None

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- An injection of a radioactive material will be given in a vein or through an IV in the arm.
- There are no reactions or side effects to this material.
- You may leave and will be asked to return about 3-4 hours later. You are allowed to eat and will be asked to
 drink extra fluids during this time.
- Upon returning, the nuclear medicine technologist will ask you to empty your bladder.
- You will lie down for your exam with a camera above and below you. You will be made as comfortable as
 possible and asked to lie still during the exam.
- The cameras will move slowly, taking images from head to toe. Images will be taken of the whole body unless
 your radiologist specifies otherwise. Additional images may be taken of the area of concern. The imaging takes
 about 60 to 90 minutes.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

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What you should know about your <u>CAPTOPRIL RENAL SCAN</u>.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. A Captopril renal scan helps physicians diagnose renovascular hypertension, or high blood pressure, due to a narrowing of the arteries supplying the kidneys.

Preparation:

- No solid food for 4 hours prior to exam. Food in the GI tract decreases absorption of Captopril.
- You may have liquids.
- You will need to be off ACE Inhibitors (Angiotensin-Converting Enzyme Inhibitors) for 5 days
- You will need to off calcium channel blockers for 48 hours (ie Norvasc).
- You will need to be off diuretic drugs for 48 hours.

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- We will verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- You will have an IV started in a vein in your arm.
- You will be given saline (water) through your IV to hydrate you prior to imaging.
- An imaging nurse will be checking your blood pressure and giving you a medication called Captopril.
- Captopril is a blood pressure medication. The nurse will monitor your blood pressure every 15 minutes for one hour prior to imaging.
- You will lie down for your exam with a camera above and below you. You will be made as comfortable as
 possible and asked to lie still during the exam.
- Just before imaging is acquired, you will be given an injection, through your IV, of a radioactive material to help visualize your kidneys.
- There are no reactions or side effects to this injection.
- Continuous images will be taken of the kidneys for 30 minutes.
- The total length of time for this exam is approx. 1.5 to 2 hours.
- Discharge instructions will be given to the patient by a nuclear medicine technologist and/or an imaging nurse.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear Medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



Imaging Patient Education

What you should know about your Exercise Sestamibi Stress Test

Purpose:

An Exercise Sestamibi Stress Test is performed to assess myocardial perfusion and left ventricular function. It gives physicians a noninvasive way of assessing the blood flow to the heart muscle. This test helps diagnose conditions of the heart resulting from decreased blood flow, such as, blockages and heart attack.

Preparation:

- No caffeine for 24 hours prior to test, this includes decaffeinated coffee.
- INPATIENTS Nothing to eat or drink from midnight on. Medications may be taken with just sips of water.
- OUTPATIENTS A light breakfast may be eaten (i.e. juice, toast, cereal).
- Wear comfortable clothes and shoes.

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of the exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- We will take a brief health history.
- An IV will be started, if the patient doesn't already have one.
- An injection of a radioactive isotope will be given through the IV.
- There are no reactions or side effects to the injection for your test.
- Two sets of images will be taken. It is very important that you remain still while the pictures are being acquired.
- This test takes approximately 4-6 hours.
- You will be walking on a treadmill for this test.
- There may be a waiting period after the treadmill.
- After being injected with the radioactive isotope, you will be asked to wait 45 minutes while the radioisotope circulates to the heart muscle.
- For the imaging portion, you will be positioned on your back with both arms over your head for about 20 minutes.
 Images are taken with a gamma camera that will rotate around your chest.
- You will walk on the treadmill and be given another injection when you reach maximum exercise. This is calculated to be at least 85 percent of your predicted maximum heart rate for your age. The length of time on the treadmill varies from patient to patient.
- After the treadmill, there may be a break of up to two hours. (Waiting time depends on the number of patients scheduled that day).
- Eating and drinking is permitted after the treadmill portion of the test is complete. (This includes caffeine).
- After the break, another set of images will be taken. This will take about 20 minutes.



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After the Test:

- No reactions or precautions.
- Your exam will be evaluated by a nuclear physicians and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



Imaging Patient Education

What you should know about your Regadenoson Sestamibi Stress Test

Purpose:

A Regadenoson Sestamibi Stress Test is performed to assess myocardial perfusion and left ventricular function. It gives physicians a noninvasive way of assessing the blood flow to the heart muscle. This test helps diagnose conditions of the heart that are a result of decreased blood flow, such as blockages and heart attack. This test uses a medication, called Regadenoson, to dilate the vessels in the heart muscle. This test is used for patients who are unable to walk on a treadmill or are unable to reach the necessary heart rate for the test, by walking on the treadmill.

Preparation:

- No caffeine for 24 hours prior to test, this includes decaffeinated coffee.
- INPATIENTS Nothing to eat or drink from midnight on. Medications may be taken with just sips of water.
- OUTPATIENTS Nothing to eat or drink from midnight on.
- Wear comfortable clothes and shoes.

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of the exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- We will take a brief health history.
- An IV will be started, if you don't already have one.
- An injection of a radioactive isotope will be given through the IV.
- There are typically no reactions or side effects to the injection.
- After being injected with the radioactive isotope, you will be asked to wait 45 minutes while the radioisotope circulates to the heart muscle.
- Two sets of images will be taken. It is very important that you remain still while the pictures are being acquired.
- For the imaging portion, you will be positioned on your back with both arms over your head for about 20 minutes.
 Images are taken with a gamma camera that will rotate around your chest.
- This test takes approximately 4-6 hours.
- You will be given a medication called Regadenoson, a vasodilator, in place of treadmill exercise.
- There will be a waiting period after the treadmill portion of at least 45 minutes. This wait time could be longer depending on the number of patients scheduled for the day.
- After Regadenoson infusion, you will be given a second injection of a radioactive material for your second set of pictures.
- Eating and drinking is permitted after the treadmill portion of the test is complete. (This includes caffeine).
- After the break, another set of images will be taken. This will take about 20 minutes.



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After the Test:

- No reactions or precautions.
- Your exam will be evaluated by a nuclear physicians and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



What you should know about your **DMSA RENAL SCAN**.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. A DMSA renal scan helps physicians evaluate the anatomy and physiology of the kidneys. This exam helps diagnose conditions such as pyelonephritis (a type of urinary tract infection that affects the kidneys), trauma, multicystic renal dysplasia and infarct.

Preparation:

None

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- We will verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- You will have an IV started in a vein in your arm.
- You will lie down for your exam with a camera above and below you. You will be made as comfortable as possible and asked to lie still during the exam.
- Just before imaging photos are taken, you will be given an injection, through your IV, of a radioactive material to help visualize your kidneys.
- There are no reactions or side effects to this injection.
- Initial images of your kidneys will be taken. These images will take approximately 15-20 minutes.
- You will be asked to return two hours later for delay pictures.
- You may eat and drink during this time. There are no restrictions during your waiting period.
- Your delay images will take approx 60 to 90 minutes.
- During the delay images a camera will be rotating slowly around your kidneys. You will again be instructed to lie still.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

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What you should know about your **Gastric Emptying Scan**.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. A gastric emptying scan is performed to diagnose the rate at which the stomach empties.

Preparation:

You will be asked not to eat or drink for eight hours before your test.

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- You will be given a scrambled egg to eat that contains a small amount of radioactive material. The taste of the egg will not be altered. (If you are allergic to eggs, oatmeal will be given as a replacement). After eating the egg, you will have images taken over the stomach area. One image is taken every 15 minutes with a gamma camera. You will be standing for the images or laying down depending on your ability to stand.
- Images will be taken for two hours. Images at three and four hours may also be obtained if clinically indicated.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

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Imaging Patient Education

What you should know about your GI Bleeding Scan.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. This scan is used to check for the location of bleeding in the bowel.

Preparation:

None

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of the exam.
- You will be asked to verify your name, date of birth and the exam you will be having done.
- We will take a brief medical history.
- You will have blood drawn from a vein in your arm. The blood is combined (tagged) to a radioactive isotope. The tagging procedure takes about 25 minutes. The tagged blood will be re-injected back into your arm.
- There are no reactions or side effects to your re-injected blood.
- Images will be acquired of the blood flow within the abdomen.
- You will be lying on your back with the camera above you. You will be made as comfortable as possible but will
 need to lie still during imaging. Images are taken continuously for one hour, or until an obvious origin of bleeding
 is seen.
- Additional images may be required to locate the site of bleeding.
- The exam will take approximately 1.5 hours.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



What you should know about your <u>Hepatobiliary Scan</u>.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. A hepatobiliary scan is performed to evaluate your gallbladder and bile ducts.

Preparation:

- You will be asked to either not eat or drink after midnight <u>or</u> have a light breakfast with no lunch, depending on the time of your exam.
- You will be asked to discontinue the use of Premarin for one week prior.

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of the exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- You will have an IV started by placing a small needle in an arm that connects to plastic tubing.
- An injection of a radioactive isotope will be given through the IV.
- There are no reactions or side effects to the injection.
- You will lie down for your exam. You will be made as comfortable as possible and asked to lie still during the exam.
- The exam will take approximately one hour.
- Images will be taken over your abdomen for at least one hour. You will be asked to lie still while the images are taken.
- If visualization of the gallbladder does not occur after one hour of imaging, you may be asked to return for delay images, two to four hours later.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear Medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number (717) 851-4624



What you should know about your <u>CCK Hepatobiliary Scan</u>.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. This scan is performed to evaluate the function of the gallbladder and bile ducts.

Preparation:

- You will be asked to either not eat or drink after midnight <u>or</u> have a light breakfast with no lunch, depending on the time of your exam.
- You will be asked to discontinue the use of Premarin for one week prior.

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- We will verify your name, date of birth and the exam you will be having performed.
- We will take a brief medical history.
- You will have an IV started by placing a small needle in an arm that connects to plastic tubing.
- An injection of a radioactive isotope will be given through the IV.
- There are no reactions or side effects to the injection.
- You will lie down for your exam. You will be made as comfortable as possible and asked to lie still during the
 exam.
- Images will be taken over your abdomen for at least one hour, until liver and gallbladder are visualized.
- When the liver and gallbladder are visualized, approximately one hour into imaging, the technologist will
 administer CCK through your IV. The CCK enzyme causes the gallbladder to contract. You may experience
 nausea and/or mild abdominal pain for a short amount of time.
- Imaging will continue for an additional 30 minutes after the CCK is injected.
- The entire procedure will last approximately 1 3/4 hours.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.



What you should know about your *LASIX RENAL SCAN*.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. A Lasix renal scan helps physicians to determine if there is an obstruction within the kidneys or urinary system.

Preparation:

Patient must be off Lasix and all diuretics for three days.

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- We will verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- You will be asked to change into a patient gown.
- You will have an IV started in a vein in your arm.
- You will be given saline (water) through your IV to hydrate you prior to imaging.
- A foley catheter will be inserted into your bladder by an imaging nurse.
- You will lie down for your exam with a camera above and below you. You will be made as comfortable as
 possible and asked to lie still during the exam.
- Just before images are taken, you will be given an injection, through your IV, of a radioactive material to help visualize your kidneys.
- There are no reactions or side effects to this injection.
- Continuous images will be taken of the kidneys for one hour.
- Lasix (a diuretic) will be given through your IV by an imaging nurse, about half way through the study.
- The total length of time for this exam is approximately 1.5-2 hours.
- Discharge instructions will be given to the patient by a nuclear medicine technologist and/or an imaging nurse.

After the Test:

- No reactions or special precautions
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



What you should know about your Lung Scan, VQ Scan, Aerosol/Perfusion Lung Scan.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. This scan is used to detect blood clots in the lungs.

Preparation:

You must have a chest x-ray within 24 hours of the scan.

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of the exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- You will breathe in an aerosol mist through a tube or face mask for about five minutes.
- You will lie down for your exam with a gamma camera above and below you. You will be made as comfortable
 as possible and asked to lie still during the exam. The technologist will take several images at different angles of
 the air flow to your lungs.
- After the first set of images, you will be injected with a small amount of radioactive material in a vein in the arm.
- There are no side effects or reactions to the injection.
- A second set of images will be taken using the same views as the first set. This set of images shows the blood flow to the lungs.
- Approximate time for this procedure is one hour.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are breastfeeding. Please tell the technologist if you are pregnant so the exam can be modified to limit radiation to the fetus.

Imaging Department Phone Number: 851-4624



Imaging Patient Education

What you should know about your Lymphoscintigraphy

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. This exam is used to help physicians localize/identify the sentinel node. The sentinel node is the first node to receive lymph drainage from a tumor.

Preparation:

None

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- Prior to injection, a numbing cream will be applied to the area surrounding the melanoma or area of interest.
- A small amount of radioactive material will be injected under the skin surrounding the area of interest. Up to four
 injections will be given in the surrounding area.
- Some mild stinging and/or burning can be expected during the injections.
- There are no other reactions or side effects to the injections.
- Immediate flow images will be acquired using a gamma camera. Generally, you will be laying down for imaging.
 You will be asked to remain still while your images are being taken.
- Images are acquired until the sentinel node is visualized. This takes approximately 30 to 60 minutes.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



Imaging Patient Education

What you should know about your Lymphoscintigraphy

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. This exam is used to help physicians localize/identify the sentinel node. The sentinel node is the first node to receive lymph drainage from a tumor.

Preparation:

None

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- Prior to injection, a numbing cream will be applied to the area surrounding the melanoma or area of interest.
- A small amount of radioactive material will be injected under the skin surrounding the area of interest. Up to four
 injections will be given in the surrounding area.
- Some mild stinging and/or burning can be expected during the injections.
- There are no other reactions or side effects to the injections.
- Immediate flow images will be acquired using a gamma camera. Generally, you will be laying down for imaging.
 You will be asked to remain still while your images are being taken.
- Images are acquired until the sentinel node is visualized. This takes approximately 30 to 60 minutes.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

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Imaging Patient Education

What you should know about your MAG3 RENAL SCAN.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. A MAG3 renal scan is used to evaluate the function of the kidneys.

Preparation:

None

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of your exam.
- We will verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- You will have an IV started in a vein in your arm.
- You will be given saline (water) through your IV to hydrate you prior to imaging.
- You will lie down for your exam with a camera above and below you. You will be made as comfortable as
 possible and asked to lie still during the exam.
- Just before imaging is acquired, you will be given an injection, through your IV, of a radioactive material to help visualize your kidneys.
- There are no reactions or side effects to this injection.
- The pictures of your kidneys will take 30 minutes.
- The total length of time for this exam is approximately 60 minutes.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



Imaging Patient Education

What you should know about your Parathyroid Scan.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. This scan is used to locate tumors of the parathyroid glands, which are found in your neck.

Preparation:

None

Procedure: What to Expect:

- Please bring a copy of your doctor's order with you the day of your exam.
- We will verify your name, date of birth and exam you will be having done.
- We will take a brief medical history.
- An injection of a small amount of radioactive material will be given in a vein in the arm.
- There are no reactions or side effects to the injection.
- After 15 minutes, you will be positioned on an imaging table with your head and neck extended.
- Images are acquired over the neck and chest. The length of time for initial scanning is one hour.
- You may leave but will be asked to return in two hours for additional imaging.
- You will again lie on the table with your head and neck extended.
- A second set of images similar to the first will be taken. If SPECT imaging is ordered, you will be asked to lie still
 for 30 minutes of continuous imaging while the camera rotates around your neck.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



What you should know about your <u>Tc99m Ceretec WBC Scan.</u>

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. This scan is performed to localize the site of infection.

Preparation:

None

Procedure: What to Expect

- Please bring a copy of your doctor's order with you on the day of your exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- You will have blood drawn from a vein in the arm.
- You will be allowed to leave the facility and will be asked to return three to four hours later.
- Your white blood cells will be removed from the blood sample and mixed with a small amount of radioactive material.
- When you return you will be given an injection in a vein in your arm to return your white blood cells to your body.
- There are no reactions or side effects to your re-injected white blood cells.
- You will be allowed to leave and then asked to return four hours later.
- You will lay down for your exam with a camera above and below you. You will be made as comfortable as
 possible and asked to lie still during the exam.
- Images will be taken at various angles at the site of infection. This will take up to one hour.
- Your images will be checked by a radiologist to determine if imaging is complete.
- You may be asked to return the next morning for additional imaging.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risks and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



What you should know about your *In111 WBC Scan*.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures, called scans, provide images that show how organs and tissues work. This scan is performed to localize the site of infection.

Preparation:

None

Procedure: What to Expect

- Please bring your doctor's order with you the day of your exam.
- You will be asked to verify your name, date of birth and exam you will be having done.
- You will have blood drawn from a vein in the arm.
- You will be allowed to leave the facility and will be asked to return three to four hours later.
- Your white blood cells will be removed from the blood sample and mixed with a small amount of radioactive material.
- When you return you will be given an injection in a vein in your arm to return your white blood cells to your body.
- There are no reactions or side effects to your re-injected white blood cells.
- You will be allowed to leave and then asked to return the next day for imaging.
- You will lay down for your exam with a camera above and below you. You will be made as comfortable as
 possible and asked to lie still during the exam.
- Images will be taken at various angles at the site of infection.
- Imaging will take approximately one hour.
- Your images will be checked by a radiologist to determine if imaging is complete.
- You may be asked to return the next day for additional imaging.

After the Test:

- No reactions or special precautions.
- Your exam will be evaluated by a radiologist and the report will be sent to your physician.

Risk and Benefits:

Nuclear medicine carries about the same risk as a common x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624

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What you should know about your <u>I131 Iodine Therapy</u>.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Iodine I131 therapy is used for the treatment of hyperthyroidism and thyroid carcinoma.

Preparation:

- Patient cannot be pregnant.
- Patient should be off all thyroid medication for two weeks.
- Patient should have no iodine products for four weeks, including any x-ray procedures or CT scans containing IV contrast dyes.

Procedure: What to Expect

- Please bring a copy of your doctor's order with you the day of the exam.
- A physician will give the patient a capsule containing a predetermined amount of radioactive iodine. This amount
 varies by patient and condition. If the patient cannot swallow or is unable to swallow a capsule, arrangements
 will be made through the ordering physician's office to utilize liquid I131.
- If the patient is being admitted to the hospital for therapy, a room will be specially prepared for the treatment by nuclear medicine and radiation safety personnel.

After the Test:

• Precautions or restrictions will be given by the physician and/or nuclear medicine and radiation safety personnel at the time of administration.

Risks and Benefits:

All precautions and risks will be carefully discussed with each patient upon administration of I131. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624



What you should know about your <u>Samarium 153 Therapy</u>.

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Samarium 153 Therapy is a therapeutic agent used to help ease bone pain in patients with bone cancer.

Preparation:

- Please bring a copy of your doctor's order with you on the day of your procedure.
- An appointment with a radiation oncologist to review the procedure.
- Drink a glass of water prior to injection.

Procedure: What to Expect

- An IV will be started by a nuclear medicine technologist.
- The IV will be flushed several times to ensure patency.
- The procedure will last approximately 20 minutes.
- A radiation oncologist will administer the dose, which is weight based and varies from patient to patient. The
 dose is determined by the radiation oncologist ordering the therapy.
- Administration of the dose takes approximately five minutes and will be followed by an additional flush.
- There are no reactions or side effects to the injection.
- The IV will be removed by a nuclear medicine technologist.
- The patient will be instructed to return to radiation oncology for further evaluation and discharge instructions.

After the Test:

Precautions and/or reactions are reviewed with the patient by the radiation oncologist.

Risks and Benefits:

All risks and benefits will be discussed with the patient prior to administration by a radiation oncologist. Side effects to nuclear medicine procedures are very rare. Nuclear medicine is generally not recommended for women who are pregnant or breastfeeding.

Imaging Department Phone Number: (717) 851-4624