



Imaging Patient Education

Nuclear Medicine



Imaging Patient Education

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 provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. A bone scan is performed to detect several types of bone disease.

Preparation:

- None

Procedure:

- 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 radioactive material will be given in a vein in the arm.
- There are no reactions or side effects to this material.
- You may leave and will be asked to return about 2-3 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 physician specifies otherwise. Additional images may be taken of the area of concern. The imaging takes about 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. 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 eight hours before your test.

Procedure:

- 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 meal consisting of egg, toast, and juice. The egg contains a small amount of radioactive material, but the taste will not be altered. (If you are allergic to eggs, special arrangements must be made prior to the scan for a suitable replacement).
- After eating the egg, you will have images taken over the stomach. One image is taken immediately and then at 30, 60, and 120 minutes. You will be standing for the images or laying down depending on your ability to stand.
- Imaging may continue up to 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 GI Bleeding Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. A GI bleed scan is performed to check for the location of bleeding in the bowel.

Preparation:

- Foley catheter

Procedure:

- 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 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 side effects from this injection.
- You will be lying on your back with the camera above you. You will be made as comfortable as possible and 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.

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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 Hepatobiliary Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. A hepatobiliary scan is performed to evaluate your gallbladder and bile ducts.

Preparation:

- You will be asked to not eat or drink after midnight.
- Narcotic pain medication should be discontinued 12-24 hours prior to test.

Procedure:

- 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 in your arm.
- An injection of a radioactive isotope will be given through the IV. There are no side effects from this 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 are taken of you abdomen continuously over one hour.
- If visualization of the gallbladder does not occur after one hour of imaging, you may be asked to return for delay images 2-4 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 CCK Hepatobiliary Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. This scan is performed to evaluate your gallbladder and bile ducts.

Preparation:

- You will be asked to not eat or drink after midnight.
- Narcotic pain medication should be discontinued 24 hours prior to test.

Procedure:

- 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 in your arm.
- An injection of radioactive isotope will be given through the IV. There are no side effects from this injection.
- You will lie down on your back 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.
- When the small bowel 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 abdomen pain for a short period of time following this injection.
- Imaging will continue for an additional 30 minutes after CCK is injected.
- The entire procedure will last approximately 1 ½ - 2 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 Lung Scan, VQ Scan:

Purpose:

Nuclear Medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear Medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. This scan is performed to detect blood clots in the lungs.

Preparation:

- Chest x-ray within 24 hours of scan.

Procedure:

- 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 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. You will breathe in a small amount of radioactive gas through a mouthpiece or mask. There are no side effects from this gas. The technologist will take several images at different angles.
- 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 from this injection.
- A second set of images will be taken using the same views as the first set.
- Approximate time for this procedure is 30 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 Quantitative Lung Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. A quantitative lung scan is performed prior to surgery in patients with lung cancer.

Preparation:

- Chest x-ray within 24 hours of scan

Procedure:

- 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 an injection in a vein in your arm containing a small amount of radioactive material. There are no side effects from this injection.
- 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.
- Images of the lungs are acquired at various angles.
- Approximate time for the exam is 30 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:

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What you should know about your Meckel's Diverticulum Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. This scan is performed to look for an abnormality in the intestinal lining.

Preparation:

- You will be asked not to eat anything for 4-6 hours prior to the procedure.

Procedure:

- 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 radioactive material will be given in a vein in the arm.
- There are no reactions or side effects to this material.
- 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.
- Images will be taken and then shown to the radiologist to determine if additional imaging is needed.
- The length of time for this exam is 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 Parathyroid Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. This scan is performed to locate tumors of the parathyroid glands, which are found in your neck.

Preparation:

- None

Procedure:

- 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 radioactive material will be given in a vein in the arm. There are no side effects from this injection.
- After 20 minutes, you will be positioned on an imaging table.
- Images are acquired over the neck and chest. The length of time for initial scanning is 10 minutes.
- You may leave but will be asked to return in 3 hours for additional imaging.
- You will again lie on the table.
- A second set of images similar to the first will be taken. You may then be asked to lie still for 30 minutes of continuous imaging while the camera moves in a circular fashion around the table.

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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 Tc99m Ceretec WBC Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. This scan is performed to localize the site of infection.

Preparation:

- None

Procedure:

- 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 blood drawn from a vein in your 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 side effects from this injection.
- You will be allowed to leave and then asked to return one hour later and subsequently 3-4 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 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 In111 WBC Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. This scan is performed to localize the site of infection.

Preparation:

- None

Procedure:

- 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 blood drawn from a vein in your 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 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 side effects from this injection.
- You will be allowed to leave and then asked to return in 4, 24, & 48 hours 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. This will take up to one hour.
- Your images will be checked by a radiologist to determine if imaging is complete.

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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 Thyroid Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. A thyroid scan is performed to evaluate the anatomy and function of the thyroid gland.

Preparation:

- You must discontinue thyroid medications for 1-4 weeks prior to scan.
- If you have had imaging studies involving an injection of iodinated contrast material, you must wait at least 6 wks before having a thyroid scan.

Procedure:

- 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 asked to swallow radioactive iodine capsules with water.
- There are no reactions or side effects to this material.
- You will be asked to return in 4 hrs for imaging. You will be positioned on an imaging table on your back. A large camera will be positioned over your head and neck.
- Images will be taken at various angles and will take about 30 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 Thyroid Uptake:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. A thyroid uptake exam is performed to determine how the thyroid is functioning.

Preparation:

- You must discontinue thyroid medication for 1-4 weeks prior to the uptake.
- If you have had imaging studies involving an injection of iodinated contrast material, you must wait at least 6 wks before having a thyroid uptake.

Procedure:

- 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.
- This is a two-day test lasting approximately 15 minutes each day.
- The first day, you will be asked to swallow capsules containing a small amount of radioactive iodine. The capsule will be taken with water. There are no side effects from these capsules. You will return 4 & 24 hrs later for your uptake.
- For your uptake, you will be in a seated position while we measure the amount of iodine in your thyroid gland. The uptake lasts approximately 5 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 Breast Imaging:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. Breast imaging is performed to check for malignant breast tissue and to further evaluate a questionable finding on a mammogram.

Preparation:

- Try to schedule this exam during ovulation.
- You may be asked to remove some or all of your clothes and to wear a gown during the exam.

Procedure:

- 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 injected in the arm opposite of the breast of concern. If both breasts are being evaluated, the injection will be given in your foot. There are no side effects from this injection.
- You will lie down on your stomach with a camera above and below you. You will be made as comfortable as possible and asked to lie still during the exam.
- Total imaging time is approximately 45 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 MUGA Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. This scan is performed to assess the heart's pumping function.

Preparation:

- None

Procedure:

- 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.
- We will start an IV in your arm and draw a small amount of blood. Your red blood cells are tagged with a radioactive material and injected back into your vein. There are no side effects from this injection.
- You will then be positioned on an imaging table on your back. You will be attached to a heart monitor for your images. You will be made as comfortable as possible and asked to lie still during the exam. Imaging time is approximately 30 minutes.
- The total length of time for this exam is 1 ½ 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 I131 WB Scan:

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. This scan is performed for patients with a history of thyroid cancer to detect potential metastases.

Preparation:

- You will receive Thyrogen injections on two consecutive days at your doctor's office. Most likely this will occur on a Monday and Tuesday.
- You will be required to follow a low iodine diet for 1 week prior to your test

Procedure:

- 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 asked to swallow a capsule containing a small amount of radioactive iodine. The capsule will be taken with water. You will return in 48 hours for your imaging. There are no side effects from this capsule.
- For your scan, you will be positioned on an imaging table on your back. You will be made as comfortable as possible and asked to lie still during the exam.
- The total length of time for this scan is approximately 1 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:

The amount of radiation used in most nuclear medicine procedures is comparable to and often less than that of a diagnostic x-ray. Only small amounts of radioactive material are used and this material is quickly eliminated from the body. Side effects of 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 Myocardial Perfusion Study (Nuclear Medicine Stress Test):

Purpose:

Nuclear medicine uses small amounts of radioactive material to diagnose and sometimes treat disease. Nuclear medicine procedures provide images that show how organs and tissues work. These procedures are noninvasive and very safe. More than 20 million Americans benefit each year from nuclear medicine procedures. Myocardial perfusion imaging (MPI) is a study that assesses heart function and whether the heart is receiving enough blood and oxygen. MPI is the most accurate test available for the early diagnosis of CAD in patients who may be at risk for a heart attack.

Preparation:

- You will be asked to avoid caffeine containing products (including decaf products and chocolate) at least 12 hours prior to your study.
- You will be asked to eat a light breakfast the morning of your study (preferably toast with jelly and juice).
- If you take beta blockers, your doctor may ask you not to take your medicine prior to this study.

Procedure:

- 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.
- Female patients will be asked to change into a gown.
- An IV will be started in a vein in your arm and you will receive an injection of a radioactive isotope through the IV. There are no reactions or side effects to this material.
- Following your injection, you will be seated in a waiting room for approximately 45 minutes. This waiting period is necessary for optimal imaging.
- At this time, we will acquire resting images of your heart. You will be positioned on an imaging table on your back. You will be made as comfortable as possible and asked to lie still during the exam. The camera will be positioned over your chest and will move in a circular fashion around you throughout the image. This image will last 13 minutes
- Following your resting image, you will begin your stress test in cardiology. You may either be walking on a treadmill or receiving a medicine to stress your heart. During the stress test, your heart will be monitored via EKG and a physician will be present. You will receive a second injection of radioactive material during this time.

- 30 to 60 minutes after your stress test is completed, we will acquire an additional image of your heart. This image will be similar to the first and will also last 13 minutes.
- The total length of time for this study is 3-5 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:

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