



Nuclear Medicine

Nuclear Medicine imaging uses small amounts of radioactive materials called radiotracers. Radiotracers are typically injected into the bloodstream, inhaled or swallowed. These radiotracers travel to the area of the body being examined. It gives off an energy called gamma rays. Gamma rays are detected by a special camera and computer. The camera and computer capture pictures of the inside of your body.

Nuclear Medicine helps detect diseases including:

- Many types of cancer.
- Heart disease.
- Gastrointestinal, endocrine, and neurological disorders.
- Other abnormalities in the body.

How to Prepare

- Jewelry and other metallic accessories should be left at home.
 - If you have them on at the time of exam, you will be asked to remove them.
- You may be asked to wear a gown, depending on the exam ordered.
- Inform your physician and the technologist of:
 - Any medications you are taking, including vitamins and herbal supplements.
 - Any allergies, recent illnesses or medical conditions you have.
- All women of childbearing age (12 to 55) will need to have a urine pregnancy test performed prior to the procedure.

What to Expect During the Procedure

- You may have an intravenous (IV) catheter placed into a vein in your arm or hand.
- It can take anywhere from several seconds to several days for the radiotracer to travel through your body.
 - The goal is for the radiotracer to accumulate in the organ or area being studied.
 - Images may be obtained immediately, several hours, or several days later to accommodate the travel of the radiotracer.
- You will be asked to lie on a special examination table which slides between two parallel cameras.
 - The cameras are shaped like a box attached to a round donut shaped device.
 - The cameras may move very close to your body to obtain the best quality images.
 - The cameras detect the energy emitted from the radiotracer.
 - This energy, with the help of a computer, creates pictures.
 - These pictures provide details about the structure and function of organs and tissues in your body.
- You will be asked to lay still while the cameras are taking pictures.
- The length of time for the exam varies from 20 minutes to over several days.
 - You may need additional images after the exam is completed.
 - This does not mean that something is wrong, but sometimes clarification or better visualization is needed.

After the Exam

- If you have had an IV inserted, it will be removed prior to your departure.
- The images are reviewed and interpreted by a radiologist.
- A report will be sent to your healthcare provider.
- Your healthcare provider will discuss the results with you.