

NUCLEAR MEDICINE EDUCATION

Nuclear Medicine is a type of Radiology test that uses a small amount of radioactive material to make pictures. This material is either injected into a vein, swallowed (in capsule or liquid form) or inhaled by the patient. This material goes to the part of your body to be examined. A special camera is used to make pictures. Some Nuclear Medicine studies can be used to treat diseases or ease symptoms. These studies can also be combined with other types of exams, such as CT, to make special types of pictures. At UNMH, we can perform Nuclear Medicine and CT scans at the same time. These exams are called fusion scans. Some common uses for Nuclear Medicine studies include:

- Checking kidney, gall bladder or heart function
- Scanning lungs to look for breathing or blood flow problems
- Checking bones for fractures, infection, arthritis and tumors
- Looking for cancer or the spread of cancer
- Looking for brain problems, that cause seizures, memory loss or problems with blood flow
- Checking the thyroid
- Treating thyroid problems with radioactive Iodine (I-131) therapy



At UNM Hospitals, only trained and licensed people are allowed to perform Nuclear Medicine exams. Students work with fully trained technologists.

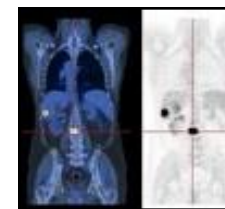
Nuclear Medicine Bone Scan

GETTING READY FOR YOUR TEST

You may have to change into a gown. You will be asked to take off your jewelry, glasses or other items from your clothing. Before your test, tell your tech if you are taking any medicine or vitamins. Let the tech know if you have any medical conditions or have been sick recently. Some Nuclear Medicine studies may have special preparations. You will usually get a call two days before your test telling you about your test preparation.

HOW IS THE TEST DONE?

The tech will take you to the exam room. You will be given a small amount of radioactive material (tracer). It can take only a few seconds or up to several days for the tracer to collect in the area being studied. For this reason, your imaging may start right away, in several hours or even days after you get the tracer. You will be asked to lie on a table and a special camera will be brought close to you so the pictures can begin. The camera is used to detect energy coming from your body. A computer helps create the pictures the doctor will read. The camera may rotate around you or may stay in one position. You may be asked to move into different positions during the test. If you do not feel comfortable in small spaces, let your tech know so they can help you. It is important you hold still and follow all instructions you are given. By doing this, you are helping yourself get the best pictures. If you had an IV placed for your test, it will be removed when your test is done. You may be asked to wait after the images are taken to make sure they are good quality and to determine if the doctor needs more pictures.



PET-CT image of chest, abdomen and pelvis. (Fusion image on left and nuclear medicine image on right.)

WHAT HAPPENS AFTER MY TEST IS DONE?

A doctor trained to read radiology exams will look at your pictures and send written results to your doctor. You will get your results from your doctor, not from Radiology or the technologist.

A NOTE ABOUT RADIOACTIVE MATERIALS

The materials used are all approved by the U.S. Food and Drug Administration. They are found to be safe and effective. There is no direct evidence showing a link between small amounts of radioactive materials with long-term side effects. For most exams, it is safe to be near other people after your study. For any tests where there may be a need for you to stay away from other people, you will be told. If you are traveling on an airplane shortly after having one of these tests, please let us know. We will give you a note with our phone number in case travel authorities have any questions.

NUCLEAR MEDICINE , PREGNANCY & BREAST FEEDING

Female patients should always let their technologist know if they might be pregnant or are breast feeding. Some exams are not performed during pregnancy because the test can be harmful to the growing baby. If you are breast feeding, please inform the technologist before your test.