

What you need to know about Nuclear Medicine Testing...

What is Nuclear Medicine Testing?

Nuclear Medicine Testing uses radioactive materials to aid in the diagnosis and treatment of a wide variety of diseases and disorders.

How does Nuclear Medicine work?

A radioactive compound is given by injection into a vein, through inhalation, or by swallowing. Different compounds are used to study specific parts of the body. The compound travels through the body, giving off gamma rays (invisible radiation). The gamma rays make it possible to show the location of the compound in the body. Special equipment, called a gamma camera, detects the gamma rays and records pictures or images of the part of the body that is being studied. A computer may enhance these images and make them easier to interpret. Cameras that are rotated with the aid of a computer are sometimes used to produce three-dimensional images of the body.

May I take someone with me?

Certainly. Your friend or family member is welcome to stay in the waiting room.

How should I prepare for my exam?

You should continue to take prescription medicines on schedule — unless your physician has instructed you differently. Depending on which part of your body is to be studied, you may be put on a special diet or you may be asked to not eat or drink fluids for up to eight hours before your exam.

What about my clothing?

You may be asked to undress, put on a hospital gown, pajama bottoms, and remove any jewelry or other items that may interfere with the image. While sweat suits or jogging clothes are recommended, a gown will still be provided, as needed.

What will happen during the exam?

Nuclear medicine testing is slightly different for each type of scan. However, the process of most tests is similar to the following example for the lung scan:

Most commonly used to detect blood clots in the lungs, lung scans are done in two ways...

You breathe in a radioactive aerosol while images are taken by the gamma camera, visualizing the air supply to the lungs.

Radioactive albumin is injected into your blood stream while images are taken by the gamma camera, visualizing the blood supply to the lungs.

Is it safe?

Yes. Nuclear medicine procedures are safe. Facilities, equipment, and materials must meet strict safety standards. All staff members are experienced, highly-trained, and safety-conscious. Every precaution is taken to minimize your exposure to radiation, with only small quantities being used for diagnosis. Drugs lose most of their radioactivity within hours and are usually eliminated quickly from the body. There may be some risk with any procedure that exposes you to radiation. Some procedures are limited during pregnancy and breast-feeding, so please alert your physician if this applies to you.

When will I learn the results?

The radiologist will interpret your results to see if the body part being studied is functioning properly. A report will be sent to your physician. Normally, within 3 working days, your physician will inform you of the results of your exam and any other testing or treatment that may be necessary.

Whom should I call if I have any other questions?

If you have any questions, please feel free to call Northfield Hospital's Medical Imaging Department at (507) 646-1143.