

RADIONUCLIDE SCANNING (NUCLEAR MEDICINE SCANNING)

What is nuclear medicine imaging?

How does nuclear medicine imaging work?

What happens during a nuclear medicine imaging scan?

Is this test dangerous?

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Radionuclide Scanning (Nuclear Medicine Scanning)

What is nuclear medicine imaging?

Nuclear Medicine Imaging is a test that produces pictures (scans) of internal body parts using small amounts of radioactive material. This test is used to provide images of organs and areas of the body that cannot be seen well with standard X-rays. Many abnormal tissue growths, such as tumors are particularly visible using nuclear medicine imaging. A radiologist—a doctor who is specially trained to use X-rays and other imaging techniques to diagnose and treat illness and disease—interprets this test.

In addition to showing the structure of an organ, nuclear medicine imaging allows the doctor to see how the organ is functioning. A diseased or poorly working organ will appear differently on the scan than will a healthy organ. The information from this test is valuable in diagnosing many diseases, including cancer. Because this test shows internal areas that are not visible on standard X-rays, nuclear medicine imaging can help identify problems very early in the progression of a disease. Treatment often is most effective when it is begun in a disease's early stages.

How does nuclear medicine imaging work?

Nuclear medicine imaging uses small amounts of low-level radioactive compounds, which are given as an injection or by mouth (swallowed). These compounds are attracted to specific organs, bones or tissues, which absorb the radioactive material. Once an organ or tissue has absorbed the radioactive material, it produces emissions, which can be detected by a special camera, or scanner. The scanner works with a computer to convert the emissions into an image. The doctor can view the images and look for areas that appear abnormal.

What happens during a nuclear medicine imaging scan?

Depending on the area of the body and the type of scan, you will receive a small dose of radioactive material as an injection, or you will be given a solution to swallow. Depending on the type of scan, you may be asked to come back for the actual scan several hours or a day after receiving

the radioactive material. In some cases, your scan will be done right away.

During the scan itself, you will be asked to lie down on a special table. The nuclear medicine imaging camera will be placed over the area to be examined. All you need to do is relax and stay calm during the scan. You will not feel anything during the test, which can last from 15 minutes to one hour. After the scan is completed, you will be allowed to go home.

[Is this test dangerous?](#)

Nuclear medicine imaging is very safe. The actual dose of radiation you receive is quite low and stays in your body for a short time. Drinking plenty of fluids after your scan will help to eliminate the radioactive material from your system.

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