



Gallium Scan

Test Overview

A gallium scan is a nuclear medicine test that can check for problem areas in certain tissues in your body.

A [radioactive tracer](#) (tracer) called gallium citrate is injected into a vein in your arm. It moves through your bloodstream and into certain tissues. These tissues include your bones, liver, and intestine, and areas that are inflamed or have a buildup of [white blood cells](#). After the tracer builds up in your body, a special camera takes pictures. The pictures show the areas where the amount of tracer is higher than normal. These areas are called hot spots.

It often takes the tracer a few days to build up. So the pictures (scans) are usually taken at 2 days and again at 3 days after you get the tracer. The tracer stays in you until your body gets rid of it through urine or stool (feces).

Why It Is Done

A gallium scan is done to:

- Find the source of an infection that is causing a fever.
- Look for an [abscess](#) or certain infections, especially in the bones.
- Check the response to [antibiotic](#) treatment.
- Diagnose inflammatory problems such as [pulmonary fibrosis](#) or [sarcoidosis](#).
- Find certain types of cancer (such as [lymphoma](#)). The scan also may be done to see if cancer has spread (metastasized) to other areas of the body. Or it may check how well a cancer treatment is working.

How To Prepare

If you will continue to breastfeed after the test, talk with your doctor about how long to wait to use your milk after the test. Many doctors suggest waiting 4 weeks before you give your breast milk to your baby. This is because the tracer can pass to your baby. Some doctors may advise you to stop breastfeeding completely after this scan.

If you plan to no longer feed your baby your breast milk after the test, stop breastfeeding 2 weeks before the test. The radioactive tracer will not build up in your breast tissue.

Gallium builds up in the large intestine before your body gets rid of it as stool. So you may need to take a laxative the night before the scan. You may also need an enema 1 to 2 hours before the scan. This is to help your doctor more clearly see the areas of your body that are being studied.

How It Is Done

A gallium scan is usually done by a nuclear medicine technologist. In most cases, a [radiologist](#) or [nuclear medicine specialist](#) will interpret the scan pictures.

The technologist will clean a site on your arm and then inject a small amount of radioactive tracer. You will need to come back for the scans. Gallium scans are usually done 24 hours (1 day), 48 hours (2 days), and 72 hours (3 days) after the tracer is injected.

When you come in for the scan, you may need to remove your jewellery. You may also need to take off all or most of your clothes. It depends on which area is being examined. You will be given a cloth or paper to cover yourself during the test.

You will lie on your back on a table. A large camera will be close above you. The camera will scan for radiation released by the tracer. It will make pictures of the tracer in your tissues. The camera may move slowly above and around your body. The camera does not produce any radiation, so you are not exposed to more radiation while the scan is being done.

You may be asked to move into different positions so the area of interest can be viewed from other angles. You need to lie very still during each scan to avoid blurring the pictures. You may be asked to hold your breath briefly during some of the scans.

Each scan may take about 60 to 90 minutes.

How It Feels

You may feel nothing at all from the needle puncture when the tracer is injected. Or you may feel a brief sting or pinch as the needle goes through the skin. Otherwise, a gallium scan usually causes no pain. You may find it hard to stay still during the scan. Ask for a pillow or blanket to make yourself as comfortable as you can before the scan begins.

Risks

[Allergic reactions](#) to the tracer are rare.

Your injection site may swell or be sore. To get relief, you can apply a moist, warm compress to your arm.

Anytime you're exposed to radiation, there's a small chance of damage to cells or tissue. That's the case even with the low-level radioactive tracer used for this test. But the chance

of damage is very low compared with the benefits of the test.

Most of the tracer will leave your body through your urine or stool within a day. So be sure to flush the toilet right after you use it, and wash your hands well with soap and water. The amount of radiation in the tracer is very small. This means it isn't a risk for people to be around you after the test.

Many doctors suggest waiting 4 weeks before you give your breast milk to your baby. This is because the tracer can pass to your baby. Some doctors may advise you to stop breastfeeding completely after this scan.

Results

The test results are usually ready within 2 days after you had the scans.

Gallium scan

Normal:

The collection and activity of gallium in the bones, liver, spleen, and large intestine is normal. No areas of unusual amounts of gallium are seen.

Abnormal:

An abnormally high amount of gallium (hot spot) is present in one or more areas of the body. This could mean inflammation, infection, or a tumour.

Credits

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Author: [Healthwise Staff](#)

[Medical Review:](#) Kathleen Romito MD - Family Medicine & Adam Husney MD - Family Medicine & Martin J. Gabica MD - Family Medicine & Howard Schaff MD - Diagnostic Radiology