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Gallium scan

A gallium scan is a test to look for swelling (inflammation), infection, or cancer in the body. It uses a radioactive material called gallium and is a type of nuclear medicine exam.

A related test is a gallium scan of the lung.

How the Test is Performed

You will get gallium injected into your vein. Gallium is a radioactive material. The gallium travels through the bloodstream and collects in the bones and certain organs.

Your health care provider will tell you to return at a later time to be scanned. The scan will take place 6 to 48 hours after the gallium is injected. The test time depends on what condition your doctor is looking for. In some cases, people are scanned more than once.

You will lie on your back on the scanner table. A special camera detects where the gallium has gathered in the body.

You must lie still during the scan, which takes 30 to 60 minutes.

How to Prepare for the Test

Stool in the bowel can interfere with the test. You may need to take a laxative the night before you have the test. Or, you may get an enema 1 to 2 hours before the test. You may eat and drink liquids normally.

You will need to sign a consent form. You will need to take off all jewelry and metal objects before the test.

How the Test will Feel

You will feel a sharp prick when you get the injection. The site may be sore for a few minutes.

The hardest part of the scan is holding still. The scan itself is painless. The technician can help make you comfortable before the scan begins.

Why the Test is Performed

This test is rarely performed. It may be done to look for the cause of a fever that has lasted a few weeks without an explanation.

Normal Results

Gallium normally collects in bones, the liver, spleen, the large bowel, and breast tissue.

What Abnormal Results Mean

Gallium detected outside normal areas can be a sign of:

- Infection
- Inflammation
- Tumors, including Hodgkin disease or non-Hodgkin lymphoma

The test may be done to look for lung conditions such as:

- Primary pulmonary hypertension
- Pulmonary embolus
- Respiratory infections, most often *Pneumocystis jirovecii* pneumonia
- Sarcoidosis
- Scleroderma of the lung
- Tumors in the lung

Risks

There is a small risk for radiation exposure. This risk is less than that with x-rays or CT scans. Pregnant or nursing women and young children should avoid radiation exposure if at all possible.

Considerations

Not all cancers show up on a gallium scan. Areas of inflammation, such as recent surgical scars, may show up on the scan. However, they do not necessarily indicate an infection.

Alternative Names

Liver gallium scan; Bony gallium scan

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