



Thyrogen® Stimulated Scan and Radioactive Iodine Therapy

What is a Thyrogen® stimulated scan with radioactive iodine therapy?

Thyrogen® stimulated scans check your body for the return of thyroid cancer. The scans work best when you have high TSH (Thyroid-Stimulating Hormone) levels. You will receive Thyrogen® injections (shots) to increase your TSH levels. If you are getting a Thyrogen® stimulated scan, you do not have to stop taking your thyroid medication while you are having scans done to check for thyroid cancer.

Thyrogen® stimulated scans happen over 3-5 days. On the third day of scans (Day 3), your doctor will review the scan results and let you know if they recommend radioactive iodine therapy. If they do, you will receive radioactive iodine therapy on Day 3. Then you will return on Day 5 to make sure the therapy is working. More details about each day of scans and therapy are included below.

How do I prepare for a Thyrogen® stimulated scan?

- You must eat a low iodine diet for 2 weeks before your Thyrogen® stimulated scan. The low iodine diet will remove any iodine from your thyroid tissue, so that the radioactive iodine dose we give you to help do your scans will work.
 - If you do not follow the diet, your body may not be able to use the radioactive iodine properly to give us a reliable scan.
 - On your low iodine diet, we want to make sure you are still getting enough sodium. For this reason, we ask you to switch from an

iodized salt or sea salt to kosher salt while you prepare for your scan.

- Avoid having any extra iodine put into your body. This includes avoiding X-rays or CT scans that are done with iodine injections for 4 weeks before your scan.
- Continue taking your thyroid medicine, even during all your scanning and therapy days.
- Remember to stay well hydrated by drinking plenty of fluids. It is important to increase your fluid intake (drink more) for several days before, during, and after your scan appointments.

What happens the Thursday before my appointments?

You will need to come to the lab for thyroid and kidney function blood tests. This is so we'll have your baseline levels to help us monitor (watch) your kidney function.

What happens on Day 1?

- You will need to come to the lab for more thyroid and calcium blood tests. We will also ask you for a urine (pee) sample to check for iodine, to make sure your low iodine diet was successful.
- If you are old enough to have children, we will ask you to take a pregnancy test.
- We will give you your first Thyrogen® injection in the Nuclear Medicine department.

What happens on Day 2?

- We will give you your second Thyrogen® injection in the morning.

- In the afternoon, we will take radiation measurements before we give you a dose of radioactive iodine (called a **tracer dose**) to help us with your scans.
- You will drink your tracer dose through a special straw. This dose has no taste. You will not have to take any radiation exposure precautions at this time (meaning that you will not have to do anything special to prevent the radiation in your body from affecting others around you).

What happens on Day 3?

- You will need to come to the lab for one last thyroid blood test before going to the Nuclear Medicine area.
- We will take radiation measurements and then schedule standard scans and another scan called a SPECT/CT for that day.
 - The standard scans are 2 sets of pictures. The first scan is of the whole body, and the second scan is of the chest and neck. Each scan lasts about 20 minutes.
 - After they look at the standard scans, your doctor may decide you may need an extra scan called a **SPECT/CT**. A SPECT/CT is done to look more closely for thyroid cancer tissues in the surgery site or neck if they notice anything on the standard scans. We cancel this scan if the doctor decides you do not need it.
- After all your scanning is done, you will have a clinic visit with a thyroid Nuclear Medicine doctor. The doctor will go over your scan results and let you know if they recommend radioactive iodine therapy.
 - If your doctor recommends therapy, you will receive therapy on Day 3. Your radiation exposure precautions will start when your therapy begins.
- Please do not bring small children to your appointment.

- Do not plan to stay in a hotel. Plan to go directly home if you receive therapy, since radiation exposure precautions will be in place.

What happens on Day 4?

- On Day 4, you will be at home (you won't have any appointments at the Nuclear Medicine department).
- Stop eating the low iodine diet.

What happens on Day 5?

- Plan on being at the Nuclear Medicine department at Michigan Medicine for 1 hour.
- You will have a scan to check that the therapy dose has reached your thyroid tissue and is working.

Who do I call if I have questions?

If you have any questions, please call the Michigan Medicine Nuclear Medicine Department at (734) 232-6072.

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