Memorial Sloan Kettering Cancer Center

PATIENT & CAREGIVER EDUCATION

About Your Thyroid Scan

This information explains how to get ready for your thyroid scan at MSK. It also explains what to expect during your scan and what to do after your scan.

About your thyroid

Your thyroid gland is a small, butterfly-shaped gland in the lower part of your neck (see Figure 1). It makes hormones that control the way your body turns oxygen and calories into energy. Your thyroid is made up of a left lobe and a right lobe. The area where the lobes join is called the isthmus (iz-muhs).

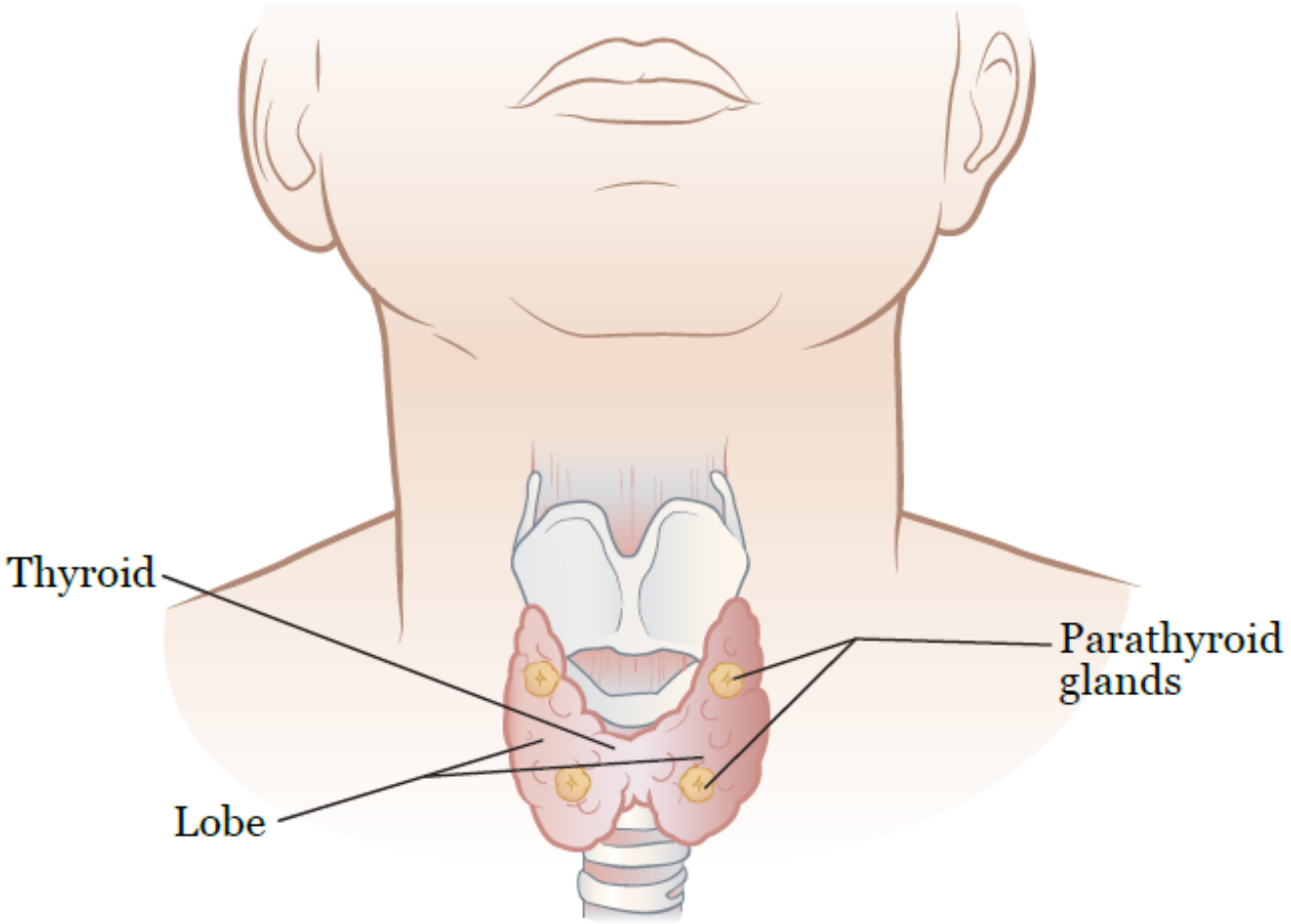


Figure 1. Your thyroid gland

Your parathyroid glands are 4 small glands located behind your thyroid. They make a hormone that helps control the level of calcium in your blood.

Lymph nodes are small oval or round structures found throughout your body. They're part of your immune system. They make and store cells that fight infection. They also filter bacteria, viruses, cancer cells, and other waste products out of your lymphatic fluid.

About thyroid scans

A thyroid scan is an imaging procedure that uses a special camera to take pictures of your thyroid.

A thyroid scan can be done for many reasons. At MSK, we usually do thyroid scans to check how much iodine your thyroid gland or thyroid tissue has absorbed. This will help your care team plan your treatment. We also use thyroid scans to check if cancer has spread from the thyroid gland to other parts of the body.

Your doctor will talk with you about your treatment plan and the reason for your scan. Treatment plans take between 2 and 6 days. Some treatment plans involve more than one scan.

During your scan, you'll need to lie still on the scan table and breathe normally. If you think you'll be uncomfortable lying in one position for a long time, talk with your doctor before your appointment. They may prescribe pain medicine to help.

If you're claustrophobic (afraid of closed spaces), talk with your healthcare provider before your appointment. They may prescribe medicine to help.

Radioisotope drug

Before your thyroid scan, you'll get a radioisotope (RAY-dee-oh-I-suh-tope) drug. This will help your healthcare provider see the thyroid tissue and cells in the images of your scan.

You'll get the radioisotope drug either the day before or day of your scan. This will depend on your treatment plan.

Thyrogen® injection

You may get a thyrotropin alfa (Thyrogen) injection (shot) for 2 straight days before your scan. This will depend on your treatment plan. The shot will help you get ready for the radioisotope drug. It will also help any thyroid cells absorb the radioactive iodine.

Not everyone will get a Thyrogen injection before their thyroid scan.

Getting ready for your scan

Low-iodine diet

Your doctor may tell you to follow a low-iodine diet for at least 1 week before the scan. A low-iodine diet may help your radioactive iodine scan work better. Too much iodine in your diet can stop your thyroid cells from absorbing the radioactive iodine.

Your doctor will tell you when you can go back to your

normal diet. Read *Low-Iodine Diet* (www.mskcc.org/pe/low-iodine-diet) to learn more.

Blood tests

You'll have blood tests done on the first day of each treatment plan. This will help your healthcare provider decide how much radioisotope drug to give you before your scan.

You may need more blood tests depending on which treatment plan you and your care team choose.

Meet with an MITS doctor

You will meet with a doctor from Molecular Imaging and Therapy Service (MITS). MITS is also called the Nuclear Medicine service. We will check your heart rate, blood pressure, temperature, and breathing rate. This will tell us if it is safe for you to have your scan.

Get the radioisotope drug

A MITS technologist will give you the radioisotope drug either the day before or day of your scan. When you get the drug will depend on your treatment plan.

You will get either I-123, I-124, or I-131. Which one you get will depend on the reason for your scan. The drug will be in either pill or liquid form.

Tell your doctor if you have trouble swallowing pills. If you

do, they'll order the drug in liquid form.

What to do after getting the radioisotope drug

Radiation safety

It is safe to be around people who are older than 18 and people who are not pregnant. You can spend time near others, kiss, hug, hold, and touch them. It is safe to have sex after your scan.

What to do if you get the I-123 drug

Avoid skin-to-skin contact or sitting or lying next to children or pregnant people for 1 hour.

What to do if you get the I-124 drug

Avoid skin-to-skin contact or sitting or lying next to children or pregnant people for 37 hours.

What to do if you get the I-131 drug

Avoid skin-to-skin contact or sitting or lying next to children or pregnant people for 1 day.

Instructions for people who are breast or chest feeding

After you get the radioisotope drug, you'll need to stop breast or chest feeding. This is because breastmilk will have the radioactive iodine in it after the iodine treatment. Drinking breastmilk with radiation is a much higher risk to the baby than lying next to them.

How long you'll need to stop breast or chest feeding depends on which radioisotope drug you get. Your Nuclear Medicine healthcare provider will talk with you about what to do. Talk with them if you have any questions.

I-123 drug

If you get the I-123 drug, stop breast or chest feeding for 3 days. You can still express (pump) milk during that time.

You can then:

- Throw away the pumped milk.
- Store the pumped milk for 3 days. After that, it's safe to give to the baby.

During this time, you can feed the baby with formula or milk that was expressed before you got the radioactive drug.

I-124 and I-131 drug

If you get the I-124 or I-131 drug, you must stop breast or chest feeding for 6 months. You can express and throw away the pumped milk during that time.

Radioactivity card

You'll get a card stating that you had a test done with a radioactive tracer and your test date. Keep this card with you because some security equipment can find

radioactivity until it leaves your body.

What to do the day of your thyroid scan

Things to remember

- Wear comfortable clothing.
- Do not wear any metal objects. Remove all coins, keys, and jewelry, including body piercings.
- Know the time and location of your thyroid scan. You can check the patient portal or call your doctor's office to confirm. Please note the arrival time for your appointment on the patient portal.
- Leave valuable items at home if you do not need them. This includes extra credit cards, extra cash, and jewelry.
- If your doctor prescribed pain medicine to help you lie still during your scan, bring it to your appointment.
- If your doctor prescribed medicine for claustrophobia (fear of closed spaces), bring it to your appointment.

What to expect when you arrive

Many staff members will ask you to say and spell your name and birth date. This is for your safety. People with the same or similar names may be having a procedure on the same day.

Inside the scan room

A member of your care team will help you onto the scan table. It is important that you lie still and breathe normally during your scan.

If you got the I-123 or I-131 drug

If you got the I-123 or I-131 drug, your scan will be done in 4 sessions.

The first 3 sessions are about 5 minutes each and last a total of 15 minutes. You can take a break after each 5-minute session. If you need to take a break, tell the technologist.

The last session is a full body scan. This lasts for about 25 minutes.

Your scan will take about 45 to 50 minutes total.

If you got the I-124 drug

If you got the I-124 drug, you'll lie down with your arms at your side for 1 hour. You cannot take a break during this scan.

What to do after your thyroid scan

The MITS technologist will talk to your doctor after your scan. They'll tell you when it is safe for you to go home.

Getting your results

A MITS doctor will read the results of your scan. Your doctor will go over your results with you and talk about next steps.

Contact information

If you have any questions or concerns, call the MITS at 212-639-6652. You can reach a staff member Monday through Friday from 9 a.m. to 5 p.m. After 5 p.m., during the weekend, and on holidays, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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