Radioactive Iodine Therapy for Thyroid Cancer: Outpatient Treatment

This information will help you get ready for your outpatient radioactive iodine therapy treatment. It will explain what to expect before, during, and after your treatment.

About Radioactive Iodine Treatment

Treatment with radioactive iodine lowers your risk of your thyroid cancer coming back. It’s also used to treat thyroid cancer that spreads to other parts of your body.

Radioactive iodine is usually given in pill form, but it can also be given in liquid form if needed. Some people have trouble swallowing pills. If you do, tell your doctor in Molecular Imaging and Therapy Service (MITS) before your treatment. This is sometimes called the Nuclear Medicine service.

Radioactive iodine enters your bloodstream and is taken up by any thyroid-like cells. The radioactivity destroys the cancer cells. The radioactive iodine gives off radiation nearby and destroys the cancer cells over time.

Before Your Radioactive Iodine Treatment
Discuss your treatment plan

Your doctor will discuss your treatment plan with you.

Your treatment plan will follow these steps that will take place over a few days:

1. On the first day, you’ll have blood tests. After those tests, you’ll see your doctor and get a thyrotropin alfa (Thyrogen®) injection (shot) to help you get ready for your treatment. This injection will help any leftover thyroid tissue absorb the radioactive iodine.

2. On the second day, you’ll get another thyrotropin alfa injection. Then you’ll get a small diagnostic dose of radioactive iodine in a pill. You won’t have to follow any precautions (safety measures) after getting this small diagnostic dose of radioactive iodine. After you take this pill, you’ll have a whole-body scan. This scan will show your doctor how the radioactive iodine is being taken up in your body.

3. On the third day, you’ll have your full dose of radioactive iodine treatment. This is an outpatient procedure, so you won’t be admitted to the hospital.

4. You’ll have another whole-body scan several days after your treatment. This helps your doctor see where the dose of radioactive iodine was taken up in your body.

Follow a low-iodine diet

You’ll need to follow a low-iodine diet for at least 1 week before you start treatment. A low-iodine diet will make your radioactive iodine therapy more effective. If you have too much iodine in your diet, it can stop the thyroid cells from taking up the radioactive iodine.

Continue to follow this diet for 24 hours after your treatment is completed, or as instructed by your doctor. Read the resource for more information.
Pregnancy and radioactive iodine therapy
Don’t get pregnant or get your partner pregnant for at least 6 months after getting radioactive iodine therapy, or as long as your doctor tells you to. Use birth control after treatment for at least 6 months after getting this treatment. If you’re planning to have a child, talk with your doctor about your plans before your treatment.

Breastfeeding and radioactive iodine therapy
Radioactive iodine can collect in breast tissue with milk in it. To prevent having radioactive iodine collect in your breast after your treatment, you’ll need to stop breastfeeding or pumping breast milk at least 6 to 12 weeks before your treatment.

You won’t be able to continue breastfeeding after your treatment because your breast milk can expose your baby to radiation. If you have any questions about breastfeeding and your treatment, talk with your doctor or call the Department of Medical Physics at 212-639-7391.

Contact your insurance company
Once your doctor has gone over your treatment plan, call your insurance company to find out if you need preauthorization (a decision that’s made by your health insurance company that this procedure is necessary) for any treatments and tests. If you need help with preauthorization or have any questions, contact Patient Billing at 646-227-3378.

Plan for transportation after treatment
Radioactive iodine gives off radiation. This means that after your treatment, you won’t be able to go home using public transportation such as buses, the subway, trains, or a plane. You can drive yourself home, have someone pick you up and take you home, or take a taxi or private car home. See our ‘Resources’ section for information about car services.

Make a plan for getting home before you come for your treatment.
The Day of Your Radioactive Iodine Treatment

Showering

- You can shower with soap and water the night before or the morning of your treatment.
- You can use your usual deodorant, lotions, creams, and makeup.

Medications

- Talk with your doctor about your thyroid medication. You can take it the day of your treatment if your doctor tells you it’s okay.
- Take all other medications as you normally would.

Diet

- Continue to follow a low-iodine diet.
- Eat a light breakfast, such as oatmeal, at least 2 hours before your scheduled treatment. Don’t eat within 2 hours of your appointment.

What to bring

- Bring things to help pass the time, such as a book, magazine, laptop, iPad, or your cell phone. You can take these items home with you after your treatment. Any small amounts of radiation on these items won’t harm you or others.

Where to go

It’s important that you arrive on time for your appointment.

Enter the hospital through the Schwartz Building at 1250 First Avenue (between East 67th and East 68th Street). Turn left by the security guard’s desk, go up a short flight of stairs, and check in at the Nuclear Medicine reception desk.
What to expect

Before your treatment begins, you’ll have a nuclear scan done in Nuclear Medicine. Then, you’ll get medication to prevent any nausea (feeling like you’re going to throw up) or vomiting (throwing up) that could happen because of the treatment. Don’t eat for 1 to 2 hours after you’ve taken this medication, or as instructed by your doctor.

A member of your healthcare team will take you to a private room in the outpatient treatment area. Your friends and family can stay in your room before the treatment, but they must leave before your treatment starts.

While you’re in your room:

- Your doctor and health physicist will come in to answer your questions and discuss the precautions you must follow after your treatment.

- You’ll get a written copy of these instructions. Then you’ll to sign a consent form.

- Before your treatment begins, you’ll get medication to prevent nausea (feeling like you’re going to throw up) or vomiting (throwing up). Don’t eat for 1 to 2 hours after you take this medication, or as instructed by your doctor.

During your treatment

Your visitors will be asked to leave. Then your nurse will give you your dose of radioactive iodine in your room. The amount you get will be based on the results of your blood tests and scans.

- If you’re getting radioactive iodine in pill form, you may get 1 to 3 pills, depending on your dose. You’ll get water to swallow with the dose.

- If you’re getting the liquid form of radioactive iodine, you’ll need to drink about a teaspoon of liquid (about 5 milliliters). You’ll drink it out of a small vial through a straw. The liquid is clear and has little to no flavor. Most people say it tastes like water, but some say that it has a slightly stale or musty taste.
After your treatment

- Right after your treatment, the health physicist will monitor your radiation levels with a hand-held device. You will have to stay in your room for at least 1 to 2 hours after your treatment. You can use your cell phone or watch TV to help pass the time. You won’t be able to have visitors during this time.

- You may not have any side effects from the treatment right after you get it, but you may have side effects later. Read the “Side Effects” section of this resource for more information.

- You’ll need to have another scan 3 to 5 days after your treatment. You’ll make an appointment for this scan before you leave Nuclear Medicine.
After Your Radioactive Iodine Treatment

Getting home

After your treatment, you won’t be able to go home using public transportation, such as buses, the subway, trains, or a plane. You can drive yourself, have someone pick you up and take you home, or take a taxi or private car. If you drive home after your appointment and there’s another person in the car with you, sit as far away from them as you can.

Clearing the radioactive iodine from your body

Some of the radioactive iodine will be taken up by your thyroid cells, but there will be some left over. Most of the extra radioactive iodine will leave your body through your urine (pee), and smaller amounts will leave your body in your saliva (spit), sweat, and bowel movements (poop).

Follow these guidelines to help the radioactive iodine leave your body quickly.

- Drink lots of liquids. Starting right after your treatment, try to drink at least 1 cup of low-iodine liquid every hour while you’re awake. Keep doing this for 2 to 3 days after your treatment. You don’t have to wake up at night to drink liquids.
- Your urine will be radioactive so urinate as much as you can to empty your bladder. Try not to get urine outside of the toilet. If you do get urine outside of the toilet, wear gloves and clean up it up with an all-purpose cleaning disinfectant. If you normally stand while urinating, sit for 2 days after your treatment unless your healthcare provider gives you other instructions. This is so you can avoid getting urine anywhere but the toilet. Try to urinate every time you feel the urge instead of holding it in your bladder.
- Your bowel movements (poop) will also be radioactive. Go to the bathroom as much as you can so your bowel movements don’t stay in your colon.
  - If you’re often constipated (having fewer bowel movements than
usual), ask your doctor about taking laxatives (medication that helps you have bowel movements) before your treatment. If you don’t have a bowel movement within 24 hours after your treatment, call your doctor.

- Some people have a dry mouth after treatment. Your doctor may recommend sucking on hard candies to avoid this. Sour candy will also help you make more saliva so the radioactive iodine can leave your body. Talk with your doctor after your treatment to see if this would help you.
- Call your nurse if you have any problems, such as nausea or stomach pain.

**Diet**

- You can restart your normal diet 24 hours after your treatment unless you’re given other instructions by your doctor.
- Keep drinking lots of liquids for 2 to 3 days after your treatment, at least 1 cup per hour.
- If you drink alcohol, drink no more than 1 or 2 drinks per day.

**Medication**

- If you were told to stop taking your thyroid medications, start taking them again the day after your treatment as instructed by your doctor.
- Take all other prescribed medications starting the day after treatment as instructed by your doctor.

**Travel**

- **Do not travel by plane, train, subway, or bus for the first 24 hours after you’re discharged from MSK.** This is to make sure you aren’t in close contact with other people for long periods of time. Even a short subway ride could become long if the train gets stuck or delayed.
- Your doctor will give you a wallet card with information about your treatment. The card states that you received treatment in Nuclear Radioactive Iodine Therapy for Thyroid Cancer: Outpatient Treatment.
Medicine and that you may give off small amounts of radiation for up to 3 months after your treatment. Show this card if you’re stopped by security at a checkpoint, such as at the airport or outside a tunnel.

**Going back to work**

The radiation safety physicist will tell you when you can go back to work. This is usually 1 to 2 days after your treatment depending on what kind of work you do, and how close you’ll be to other people.

**Sexual activity**

- Your doctor or radiation safety physicist will tell you when it’s safe to have sexual activity after treatment.
- Ask your doctor or nurse about using birth control. Don’t get pregnant or get someone else pregnant for at least 6 months. Talk with your doctor before trying to get pregnant.

**Side Effects**

You might have some side effects after your treatment. These can include:

- Mild nausea right after you take the radioactive iodine. Your healthcare provider will give you anti-nausea medication before your treatment to prevent this.

- Swelling in your cheeks. This is caused by irritation or damage to your salivary glands (the glands that make your saliva) from the radioactive iodine. This can happen as early as the morning after your treatment. The swelling may continue for a year after your treatment. Call your doctor if you have:
  - Painful, swollen salivary glands
  - Bad-tasting saliva
  - Bad-smelling saliva

- Dry mouth. This is also caused by irritation or damage to your salivary glands. Dry mouth may happen if you’re taking a higher dose of radioactive iodine. Dry mouth can happen right after treatment, or it may
happen for several months to a year after treatment. To help with this, drink plenty of liquids, as instructed by your doctor.

- Changes in taste caused by irritation of your taste buds. Food might taste salty or like metal after your treatment. This is temporary and usually goes away within 8 weeks after your treatment. Try foods with different flavors to make sure you get the nutrition you need.

- Discomfort in your neck. This can happen during the first 2 to 3 weeks after your treatment, but it depends on the amount of thyroid tissue still in your neck. An over-the-counter pain reliever, such as acetaminophen (Tylenol®), should help. In very rare cases, the treatment can cause swelling in your neck that makes it hard for you to breathe. This is a serious condition.

If you have trouble breathing, go to the nearest emergency room right away. Have them call your doctor at Memorial Sloan Kettering (MSK).

Follow-up Care After Your Treatment

Less than 1 week after your treatment, you’ll have a follow-up appointment with Nuclear Medicine. There, you’ll have a scan to see where the radioactive iodine was taken up in your body. You’ll get an appointment card before you go home.

Call Nuclear Medicine at 212-639-6652 if you have any questions about the scan or your follow-up appointment.

During your follow-up appointment, your doctor may also:

- Order other scans based on your healthcare needs.
- Order blood tests to see if the dose of your thyroid medication needs to be changed.

After your first follow-up appointment, you’ll make another follow-up appointment for 6 months later.
Resources

Access-A-Ride
web.mta.info/nyct/paratran/guide.htm
877-337-2017
In New York City, the MTA offers a shared ride, door-to-door service for people with disabilities who can’t take the public bus or subway.

Air Charity Network
www.aircharitynetwork.org
877-621-7177
Provides travel to treatment centers.

American Cancer Society (ACS)
www.cancer.org
800-ACS-2345 (800-227-2345)
Offers a variety of information and services, including Hope Lodge, a free place for patients and caregivers to stay during cancer treatment.

American Thyroid Association
www.thyroid.org
Provides up-to-date information for thyroid patients, their families, and other interested public communities.

Light of Life Foundation
http://lightoflifefoundation.org
646-888-8106
Provides thyroid cancer patients with medical information and support.

National Cancer Institute (NCI)
www.cancer.gov
800-4-CANCER (800-422-6237)

Resources for Life After Cancer (RLAC)
At MSK, care doesn’t end after active treatment. The RLAC program is for patients and their families who have finished treatment. This program has many services, including support groups, seminars, workshops, counseling
on life after treatment, and help with insurance and employment issues. For more information, call 646-888-8106.

**ThyCa: Thyroid Cancer Survivors’ Association, Inc.**
www.thyca.org
877-588-7904
This site provides current information about thyroid cancer and support services available to people at any stage of testing, treatment, or lifelong monitoring for thyroid cancer, as well as their caregivers.

**Contact Information**

If you have any questions about radiation safety, call 212-639-7391 Monday through Friday from 9:00 a.m. to 5:00 p.m. If you have an emergency after 5:00 p.m., during the weekend, or on holidays, call your endocrine doctor, or go to urgent care or the nearest emergency room. You may also call Nuclear Medicine at 212-639-6652 if you have any questions about appointment times or your treatment.

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