PATIENT & CAREGIVER EDUCATION

Radioactive Iodine Therapy for Thyroid Cancer: Inpatient Treatment

This information will help you get ready for your inpatient 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 having your thyroid cancer come back. It’s also used to treat thyroid cancer that’s spread 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 the 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 absorbed in your body.

3. On the third day, you’ll be admitted to the hospital for your treatment. Most people are in the hospital for 1 night. Your doctor will tell you if you need to stay longer.

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 your thyroid from taking up the radioactive iodine.

Continue to follow this diet for 24 hours after the treatment is completed, or as instructed by your doctor. Read the resource *Low-Iodine Diet* ([www.mskcc.org/pe/low_iodine_diet](http://www.mskcc.org/pe/low_iodine_diet)) 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**
If you’re breastfeeding or pumping breast milk, you’ll need to stop at least 6 to 12 weeks before getting this treatment. This is because the radioactive iodine collects in your breast tissue. 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
Note the time of your treatment

Someone from the Admitting Office will call you after 2:00 PM the day before your treatment and tell you what time to get to the hospital for your treatment. If you don’t get a call by 7:00 PM, call 212-639-7881.

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 meal, such as oatmeal, at least 2 hours before
your scheduled treatment.

- Your treatment will likely be in the afternoon, so bring a light lunch or snack.
- You'll be given dinner in your hospital room after your treatment is finished.

**What to bring**

You'll be staying in a private hospital room. It will have a telephone, TV and DVD player, and a bathroom.

You should bring the following items with you:

- Comfortable clothes to wear during the day.
- Clothes to sleep in.
- Things to wash up with, such as soap, a toothbrush, deodorant, shampoo, and conditioner.
- Sanitary pads, if you think you'll be menstruating (getting your period) at that time.
- Things to help pass the time, such as a book, magazine, laptop, iPad, DVDs, and your cellphone.

You can take these items home with you after your treatment. Any small amounts of radiation on these items won't harm you or anyone else.

**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 MITS or Nuclear Medicine reception desk.

**What to expect**

Before your treatment begins, you’ll have a nuclear scan done in Nuclear Medicine. Then, you’ll be taken to your private hospital room as soon as it’s available. You’ll get your treatment the day you arrive.

While you’re in your room:

- Your friends and family can stay in your room before the treatment, but they must leave before your treatment starts.
- Your doctor and health physicist will come to your room 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 sign a consent form.
- Before your treatment begins, a nurse will check in with you and check your vital signs. You’ll also 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 your radioactive iodine in pill form, you may get 1 to 4 pills, depending on your dose. You’ll get water to swallow with the dose.

- If you’re getting your radioactive iodine in liquid form, 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**

**In your hospital room**

After getting your treatment, you have to stay in your room at all times. The door to your room can stay open. Your visitors have to stay outside your room, but they can talk to you from the doorway.

You’ll need to start sucking on sour hard candies after your treatment to help with side effects in your salivary glands (the glands that make your saliva (spit)), such as dry mouth. Your doctor will tell you when to start doing this.

The hospital staff taking care of you is trained in radiation safety. They may enter your room, but they won’t be able to spend a long time in the room with you. They will speak with
you from the doorway. Tell your nurse if you need help or have any problems such as nausea or stomach pain.

To control the amount of radiation that gets on things in your room, protective covers will be placed on your phone, bedside table, and bathroom. A disposable mat will be put by the toilet to protect the floor from urine. You’ll have a trash bin, and a radiation safety staff member will take out your trash every day.

You may not experience any side effects of the radioactive iodine right after you get it, but you may have side effects later. Read the “Side Effects” section in this guide for more information.

**After Your Radioactive Iodine Treatment**

**Leaving the hospital**

The morning after your treatment, the radiation level in your body will be measured by the health physicist using a hand-held device. Once the level is low enough, you’ll be able to leave the hospital. You may need to follow more radiation safety instructions after leaving the hospital. Your healthcare provider will discuss these with you before you leave.

**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,
sweat, and stool (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 so 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 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 in 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.
• Eat sour, hard candy to help with the dry mouth that some people experience after treatment. Sour candy will also help you make more saliva so the radioactive iodine can leave your body. Your doctor will let you know when to start sucking on them.

• Call your nurse if you have any problems, such as nausea or stomach pain.

**Diet**

• You can restart your usual 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.

• 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 the...
hospital. 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 MITS and that you may give off small amounts of radioactivity 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 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 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. To help with this, drink plenty of liquids, as instructed by your doctor. Sucking on sour hard candy after your treatment can help. Dry mouth can happen right after treatment, or it may happen for several months to a year after treatment.

• 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 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](http://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](http://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 AM to 5:00 PM. If you have an emergency after 5:00 PM, 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.