Radioactive Iodine Therapy for Thyroid Cancer: Outpatient Treatment

This information explains radioactive iodine therapy to treat thyroid cancer in the outpatient setting.

Treatment with radioactive iodine helps reduce the risk that thyroid cancer will come back. It is also used to treat thyroid cancer that has spread.

Radioactive iodine enters your bloodstream and is taken up by your thyroid cells. The radioactivity destroys the cancer cells.

Before Your Treatment

Discuss your treatment plan

Your doctor will discuss your treatment plan with you. It will consist of the following steps:

- You will have blood tests and receive a thyrotropin alfa (Thyrogen®) injection to help prepare for your treatment.

- The next day you will receive another injection and a small diagnostic dose of radioactive iodine and you will have whole body scans. You will not have to follow any precautions after you receive the dose.

- The following day you will have your radioactive treatment in the outpatient setting, meaning that you will not have to be admitted to the hospital.
  - The radioactive iodine is usually given in pill form, although it can be given in liquid form. Some people have trouble swallowing pills. If you do, tell your doctor in Nuclear Medicine before your treatment.

- You will have a whole body scan after your treatment. This allows your
doctor see where the radioactive iodine was taken up in your body.

You will need to avoid getting pregnant or avoid getting your partner pregnant for at least 6 months after getting radioactive iodine therapy or as directed by your doctor. Make sure you use birth control after treatment for 6 months to 1 year after you receive this treatment. If you plan to get pregnant or father a child, speak with your doctor about this before your treatment.

**Stop breastfeeding**

If you are breastfeeding or pumping breast milk, you will need to stop at least 6 to 12 weeks before you receive this treatment. This is because the radioactive iodine collects in your breast tissue. Talk with your doctor or call the Department of Medical Physics at 212-639-7391 if you have any questions about breastfeeding and your treatment.

**Contact your insurance company**

Once your doctor has given you your treatment plan, call your insurance company to find out if you need preauthorization for any treatments and tests. Your doctor’s office and the hospital will not know this information. If you need help with preauthorization, contact Patient Billing at 646-227-3378.

**Follow a low-iodine diet**

If you have iodine in your diet, it can prevent your thyroid from taking up the radioactive iodine. You will need to follow a low-iodine diet for 1 to 2 weeks before you start treatment. A low-iodine diet will make your radioactive iodine therapy more effective. Follow this diet until your test or treatment is complete. Your nurse will give you the resource *Low-iodine Diet*.

**Arrange your transportation**

Radioactive iodine gives off radiation. After your treatment, you cannot go home using public transportation such as buses, the subway, trains, or plane. You can drive yourself home, have someone pick you up and take you home, or take a taxi or private car home. Please make your arrangements before you come for your treatment.

**The Day of Your Treatment**

On the morning of your treatment, follow the guidelines below.
Hygiene

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

Medications

- Take your thyroid medication if your doctor tells you to take it.
- Take all of your other usual medications.

Diet

- Continue to follow a low-iodine diet.
- Eat a light breakfast, such as oatmeal.

What to bring

- Things to help pass the time, such as, books, magazines, laptop computer, DVDs, and your cell phone. You can take these items home with you after your treatment. Any small amounts of radiation on these items will not harm you or anyone else.
- Sour hard candy to help with the dry mouth that some people experience after treatment. Your doctor will tell you when to start sucking on them.

Where to go

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

What to expect

Before your treatment begins, you will have a scan. You will get medication to prevent any nausea or vomiting that may result from the treatment. Do not eat for 1 to 2 hours after you have taken this medication, or as instructed by your doctor.
You will be taken to a room in the outpatient treatment area. This will be a room with lead walls and ceiling, with a TV and DVD player and a selection of movies and beverages. Your friends and family can stay in the room until you get your treatment. They must leave before it starts.

Your doctor and radiation safety officer will come to your room to answer your questions and discuss the precautions you must follow after your treatment. You will get a written copy of these instructions. You will then be asked to sign a consent form.

You will get your dose of radioactive iodine. It will be based on the results of your blood tests and scans. You will get water to swallow the dose.

- The pill form of radioactive iodine comes in capsules about the size of a vitamin. The dose is usually given with 1 to 3 pills.
- The liquid form of radioactive iodine is 5 milliliters, which is about a teaspoon. You will 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, though some say that it has a slightly stale or musty taste.

Immediately after your treatment, your radiation safety physicist will monitor your radiation levels. You must stay in the room for at least 2 hours after your treatment. You can use your cell phone and watch movies or TV to help pass the time.

You will need to start sucking on sour hard candy after your treatment. Your doctor will tell you when to start doing this.

You will have another scan after your treatment.

You may not experience any side effects of the radioactive iodine right after you receive it, but you may have side effects later. These are described in the “Side Effects” section.

**After Your Treatment**

**Getting home**

You will not be able to take public transportation home. You will need to get
Clearing the radioactive iodine from your body

Some of the radioactive iodine will be taken up by your thyroid cells, but the remainder will exit your body quickly. Most of the remaining iodine will exit your body in your urine, but smaller amounts will also exit your body in your saliva, sweat, and stool.

To help the iodine exit your body quickly:

- Drink plenty of liquids. Try to drink at least 1 cup of liquid every hour while you’re awake. Do this for 2 to 3 days after your treatment. You do not have to wake up at night to drink liquids.
- Urinate often. Since your urine will be radioactive, you must take extra care to contain it. Women can urinate as usual. Men must sit when urinating.
- Move your bowels regularly to reduce the dose of radiation to your intestines. If you’re often constipated, ask your doctor about taking laxatives before your treatment. If you don’t have a bowel movement within 24 hours after your treatment, call your doctor.
- Call your nurse if you have any problems, such as nausea or an upset stomach.

Diet

- You can resume your usual diet the day after your treatment, unless directed by your doctor.
- Continue to drink plenty of liquids for 2 to 3 days after your treatment.
- If you drink alcohol, do so in moderation.

Medication

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

- **Do not travel by plane, train, subway, or bus for the first 24 hours after you are discharged.** This is to make sure you are not 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.

- You will receive a card to show to authorities, if needed. The card states that you received treatment in Nuclear Medicine and that you may give off small amounts of radioactivity for up to 1 month after your treatment. Use it if you are stopped by law enforcement at a checkpoint, such as the airport or outside a tunnel.

Using your cell phone

You can use your cell phone without any restrictions.

Returning to work

Your radiation safety officer will tell you when you can go back to work.

Sexual activity

- Your doctor or radiation safety officer will tell you when it’s safe to resume sexual activity.

- Ask your doctor or nurse about using birth control. You will need to avoid becoming pregnant or getting someone pregnant for at least 6 months.

Side Effects

You may experience the following side effects after your treatment:

- Mild nausea right after you take the radioactive iodine. You will receive antinausea medication before your treatment to prevent this.

- Swelling in your cheeks from irritation or damage to your salivary glands. This can occur as early as the morning after your treatment and continue as long as a year after your treatment. Call your doctor if you have:
  - Painful, swollen glands
  - Foul-tasting saliva
Bad-smelling saliva

- Dry mouth, which is caused by irritation or damage to your salivary glands. This is rare with smaller doses of radioactive iodine. Dry mouth can occur right after treatment or it can occur for several months to a year after treatment. Drink plenty of liquids, as instructed. Sucking on sour hard candy after your treatment can help.

- Changes in taste caused by irritation of your taste buds. You may notice that food tastes salty or metallic after your treatment. This is temporary and usually goes away within 8 weeks after your treatment. Try foods with different flavors to ensure you’re getting the nutrition you need.

- Neck pain. This can occur during the first 2 to 3 weeks after your treatment, but it depends on the amount of thyroid tissue still in your neck. A mild pain reliever such as acetaminophen (Tylenol®) should help.

In very rare cases, the treatment can cause enough swelling to make it hard to breathe. This is a serious condition. **If you have trouble breathing, go to your nearest hospital emergency room immediately.** Have them call your doctor at Memorial Sloan Kettering (MSK).

### Follow-up Care After Your Treatment

About 1 week after your treatment, you will return to Nuclear Medicine. You will have a scan to see where the radioactive iodine was taken up in your body. You will get an appointment card before you go home. Call 212-639-6652 if you have any questions about the scan.

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 you first follow-up appointment, you will need to make a follow-up appointment for 6 months later.

### Support for survivors

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

Resources

American Cancer Society
www.cancer.org
1-800-ACS-2345

American Thyroid Association
www.thyroid.org

National Cancer Institute (NCI)
www.cancer.gov
1-800-4-CANCER

Light of Life Foundation
www.checkyourneck.com
646-888-8106

ThyCa: Thyroid Cancer Survivors’ Association, Inc.
www.thyca.org
1-877-588-7904

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at ____________________. After 5:00 PM, during the weekend, and on holidays, please call____________________. If there’s no number listed, or you’re not sure, call 212-639-2000.