

High Dose Radioactive Iodine (I-131) Therapy for Treatment of Thyroid Cancer for Out-Patients

This pamphlet provides general information. You can get more information on this treatment from:

- the doctor caring for your thyroid condition or
- the doctor in the Nuclear Medicine Department

What is radioactive iodine?

The radioactive form of iodine is also called radioiodine. It has been used for over 50 years to treat hyperthyroidism and thyroid cancer. This type of treatment is used to:

- kill any cancer cells that may have been left behind after thyroid removal
 - treat thyroid cancer that has spread (called metastases)
 - treat recurring cancer
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Am I radioactive after treatment?

Yes, but only as long as the radioactive iodine remains in your body. Some radioactive iodine stays in your remaining thyroid tissue to get the desired treatment effects. The rest is eliminated in your urine, saliva, sweat and stool from bowel movements. Most of the radioiodine that your thyroid does not use comes out the first 2 days after treatment. The amount you eliminate decreases after that.

You need to follow precautions for 7 days to make sure you do not expose anyone to radiation after your treatment.

How are other people exposed?

The radiation given off by radioactive iodine in your body is similar to x-rays. People who stay close to you for long periods of time may be exposed to unnecessary radiation as well. They may also come in contact with small quantities of radioactive iodine eliminated by your body through urine, saliva, sweat or stool.

This is why you need to follow special precautions for 7 days.

What is out-patient therapy?

Out-patient therapy means that you have your radioactive iodine treatment in the Nuclear Medicine Department and then go home. You do not stay in the hospital.

If the doctor who refers you for treatment thinks that out-patient therapy may be right for you, he or she will give you a questionnaire to complete. This questionnaire asks you about the details of your living arrangements.

Your doctor then books an appointment for you to come to the Nuclear Medicine Department to meet with the Nuclear Medicine Doctor and/or the Radiation Safety Officer to talk about the treatment.

If you live with someone, you must bring your main care helper and/or driver with you to this appointment. Your main care helper is the person who spends the most time with you at home. The driver is the person who will drive you home on the day of treatment. Your care helper and driver may be the same person. If you live alone, you can come to this appointment alone.

For out-patient therapy, you have 3 separate appointments at the hospital:

1. for an interview in the Nuclear Medicine department
 2. to have the radioactive iodine treatment
 3. for a follow-up body scan
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What happens during the interview in the Nuclear Medicine Department?

The Nuclear Medicine doctor and/or the Radiation Safety Officer will review the answers on your questionnaire and then talk to you about them. Then they decide if out-patient therapy is right for you:

- If out-patient therapy is **not right** for you, you will get information about in-patient therapy. As an in-patient you stay in the hospital for up to 3 days after treatment.
- If out-patient therapy **is right** for you, you will sign a “Consent for Out-Patient Treatment and Precautions” form.
- The forms are on the last page of this handout. When you sign this form, you agree to follow special precautions in order to minimize radiation exposure to yourself and members of the public. You are given a handout that describes the special precautions to follow at home when you come for your treatment. Your care helper also signs a form agreeing to follow the special precautions.

How do I prepare for this treatment?

Before your treatment, the doctor will talk to you about any changes to your medication. You may also need to follow a special diet. The diet is explained if you need to follow it.

Women must be certain that they are not pregnant before they can be treated. You may need to have a pregnancy test.

On the day of your treatment do not eat or drink anything for at least 2 hours before your appointment time. This is to make sure that the capsule will be absorbed.

What happens at the treatment appointment?

You will arrive at the Nuclear Medicine Department for the appointment time. At this time, you are given an appointment to come back in 1 week for a whole body scan. The body scan takes about 1 hour.

You then go into a treatment room. The doctor who ordered the treatment or a Nuclear Medicine doctor will meet you in the treatment room. The doctor goes over the special precautions you need to follow at home. You can ask any questions at this time. The radioactive iodine is brought into the room in a lead container. It is important to take the capsule right away. Swallow the capsule whole with a full glass of water. This helps prevent the staff from being exposed to the radiation and prevents contamination of the room. You leave the hospital and go home as soon as you take the capsule.

What happens at the body scan appointment 1 week later?

You come to the Nuclear Medicine Department for your appointment time. You register and then go into the body scan room. The staff will explain the scan and then do it. You then go home.

You will have a follow-up appointment with the doctor who ordered the treatment to talk about the results of your body scan.

Precautions after Out-Patient Radioactive Iodine (I-131) Therapy

Here are the general guidelines to follow to lower the risk of exposing others to radiation.

Follow these precautions for 7 days after treatment.

Travelling home from the hospital:

- Sit as far away from the driver as you can. For example, sit opposite the driver in the back seat. There should be no other passengers.

Once at home:

- Stay at home in your own room and minimize contact with others.
 - Wear slippers or socks at all times.
 - Do not return to work and school.
 - Do not travel on public transit or attend public events.
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Drinking fluids and sucking candy:

Most of the extra radioactive iodine is eliminated in your urine. It is important to drink fluids after your treatment and for the next 2 days. This lowers the amount of radiation exposure to your bladder.

You may also be advised to suck on sour candies or sip lemon or lime juice after treatment. This helps radioactive iodine come out in your saliva.

These guidelines depend on your personal health history. Before your treatment begins, talk to the doctor who ordered the treatment about:

- the amount of fluid you can drink
- if you can suck sour candy or sip lemon or lime juice
- when to start and stop sucking sour candy or sipping juice if you are allowed to do this

More home guidelines:

Time

The less time you spend around other people the better. This is very important with children and pregnant women. Avoid being close to pregnant women and children **for at least 7 days**.

When you are around people, spend no more than:

- 45 minutes a day at 1 meter or 3.5 feet **or**
- 2 hours a day at 2 meters or 7 feet **or**
- 7 hours a day at 3 meters or 10 feet

You can spend as much time as you like at 4 meters or 13 feet from other people.

Distance

The greater distance from other people the better. For example, doubling your distance from someone decreases exposure by a factor of $\frac{1}{4}$. Examples of increasing distance include:

- Sleep alone.
- Do not sit right beside someone on a couch or in a vehicle.
- Sit as far away as you can from the person driving you home from the hospital.
- Do not use public transit.
- Do not go to the theatre or any event where you would be close to people.

Hygiene

Good hygiene is very important to reduce exposure to others.

- Reserve a washroom in your home for your use only. This is a **MUST**. Clean this washroom well after your precaution time is over. Make sure no one uses your soap or towels.
 - Wash your hands with soap and plenty of water each time you use the toilet.
 - Have at least 1 daily shower. No baths.
 - Keep the toilet and surrounding area very clean.
 - Men must urinate sitting down to avoid splashing.
 - Flush the toilet 3 times with the lid closed after each use.
 - Rinse the bathroom sink, shower and tub thoroughly after using.
 - After brushing your teeth, spit into the toilet then flush the toilet 2 times.
 - Flush all used facial tissue down the toilet.
 - Do not chew gum.
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Food and dishes

- Use separate dishes and wash separately.
- Eat prepared food or prepare your own food separately from the people in your home.
- Avoid foods that create saliva and have residue that needs throwing away. For example food with bones such as chicken wings and ribs and food with cores such as apples and pears. Eat cored fruit chopped or boneless chicken.

Clothes, bedding and towels

- Wash separately.
- After your precaution time is over wash all items 2 times before returning to general use in your home.

Close contact

- Avoid kissing and sexual intercourse.

Further guidelines:

- Do not become pregnant or father a child after having radioactive iodine for 6 months. You may want to talk to your doctor about how to prevent a pregnancy.

Feeling sick or constipated:

- If you feel sick to your stomach, take an anti-nausea medication, such as Gravol.
 - If you do not have a bowel movement within the first 24 hours after treatment, take a mild laxative, such as milk of magnesia.
 - Contact your family doctor for further instructions or advice.
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Emergency information:

- If you vomit or spill urine at home in the first 3 days after having radioactive iodine, clean up the spill and contact the Radiation Safety Officer at the hospital where you were treated. People who live with you and have come in contact with the spill may have to come to the Nuclear Medicine Department for testing.
- In the event of a life and death situation within the first 3 days, do not delay life saving measures. If there is a fire for example, evacuate everyone in the home. After the situation is under control, contact the Radiation Safety Officer.
- In the event of death of a person who has received radioactive iodine, call the Radiation Safety Officer as soon as possible. Appropriate arrangements can be made to keep radiation exposures low.

Regular contacts

(Monday to Friday – 8:00 a.m. to 4:00 p.m.)

Radiation Safety Officer
St. Joseph's Healthcare Hamilton
Telephone: 905-522-1155, ext. 33311

Emergency Contacts (after regular hours)

Radiation Safety: 905-522-1155, ext. 33311
(ask for the Radiation Safety Officer to be paged)

Consent for Out-Patient Treatment and Precautions (Patient)

I have read and understand the above information. These precautions have been explained to me by the Nuclear Medicine doctor.

I recognize that I have primary responsibility to follow the recommendations of the procedure and the precautions.

I consent to follow the above restrictions in order to minimize radiation exposure to the people I live with and members of the public.

Patient's printed name

Patient's signature

Date

Doctor's signature

Date

Radiation Safety Officer's signature

Date

Consent for Out-Patient Treatment and Precautions (Care Helper)

I have read and understand the above information. These precautions have been explained to me by the Nuclear Medicine doctor.

I recognize that I have the primary responsibility to help the iodine therapy patient follow the recommendations of the procedure and the precautions.

I consent to follow the above restrictions in order to minimize radiation exposure to myself and members of the public.

Care Helper's printed name

Care Helper's signature

Date

Physician's signature

Date

Radiation Safety Officer's signature

Date