

**Please arrive 15 minutes early to allow for parking and registration.**

If you have questions or need to cancel your appointment call:

905-521-6095

Nuclear Medicine Department  
Level 0 – Marian Wing  
St. Joseph's Hospital  
50 Charlton Avenue East  
Hamilton, Ontario L8N 4A6

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

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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

### 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 effect. The rest is eliminated in your urine, saliva, sweat and bowel movements. Most of the radioactive iodine 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 or sweat.

**This is why you must follow special precautions for 7 days.**

You must sign a SJHH "Consent to Treatment" form on the day of your treatment. By signing this form, you are indicating that you agree to follow the special precautions in order to minimize radiation exposure to yourself and members of the public.

### Do I pay for this treatment?

No.

### What about pregnancy?

Radioactive iodine treatment is not given during pregnancy. You should wait 6 months after treatment before becoming pregnant or fathering a child. There may be other reasons why you should avoid being pregnant so talk to your doctor about this.

### What about breastfeeding and caring for a baby?

You cannot breastfeed since radioactive iodine is secreted in breast milk. Limit time spent in close contact with your baby for 7 days. After 7 days, you can care for your baby again.

### Notes:

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## Hygiene

Good hygiene is very important to reduce exposure to others.

- Wash your hands with soap and plenty of water each time you use the toilet.
- You must have at least 1 shower a day. No baths.
- Keep the toilet and surrounding area very clean.
- Men should urinate sitting down to avoid splashing.
- Flush the toilet 3 times with the lid closed after each use.
- Rinse the bathroom sink and tub thoroughly after using.
- After brushing your teeth, spit into the toilet then flush the toilet 2 times.
- Do not chew gum.

## Food and dishes

- Use separate dishes and wash separately.
- Eat prepared food or prepare your own food separately from the people in your home.

## Clothes, bedding and towels

- Wash separately.
- After 7 days of following these guidelines wash these 2 times before returning to general use in your home.

## Close contact

- Avoid kissing and sexual intercourse.

## Will I stay in the hospital after I-131 treatment or will I go home?

There are 2 types of treatment:

- In-Patient
- Out-Patient

You and the members of your health care team will decide the best treatment for you. Things like the amount of radioactive iodine that is being ordered for you as well as your home living arrangements are considered in the decision.

## 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 be asked to follow a special diet. The diet is explained if you need to follow it.

**Women must be certain that they are not pregnant at the time they get the treatment.** You may need to have a pregnancy test. If there is a chance that you are pregnant, the treatment is cancelled.

## The day of treatment

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

## Out-Patient treatment

There are 3 appointments:

- assessment and planning interview
- treatment
- follow-up body scan

### What happens during the assessment and planning interview?

You must bring your main care helper or support person with you to this appointment. This is a person who spends the most time with you at home. If you live alone, you can attend this appointment alone.

You start with a questionnaire that asks about your living arrangements. The Nuclear Medicine doctor and/or the Radiation Safety Officer then review your answers and meet with you to discuss them. At this point, they decide if out-patient treatment is good for you. If not, you are booked as an in-patient and this is explained.

If you have out-patient treatment planned, you and your care helper will sign a document stating that you will follow precautions required to limit radiation exposure to people you live with and the public. The precautions are explained and you get a copy along with your signed agreement.

You receive a date for your treatment at this appointment.

## 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. You may need to take time off work or school to meet these guidelines.

## 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.

# Information for All Patients

## How can I reduce radiation exposure to my other organs?

Radioactive iodine that is not taken up by your thyroid is eliminated through your body fluids such as urine, saliva, sweat and bowel movements. Most of this elimination occurs in the first week after treatment. Any radioactive iodine that remains in your body naturally disappears over the next 3 months.

Most of the 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 after treatment to help 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 test about:**

- when to start and stop sucking sour candy if you are allowed to suck candy
- the amount of fluids you should drink

## What precautions do I follow at home?

Following the rules listed below will help you reduce the risk of exposing others to radiation. **These rules must be followed for 7 days once you get home.**

## What happens at the treatment appointment?

You arrive at the Nuclear Medicine Department at your appointment time. When you check in you are given your follow-up appointment for 1 week later in the Nuclear Medicine Department.

You then go to the treatment room. The Nuclear Medicine doctor meets with you in the treatment room. At this time, the doctor reviews the special precautions with you again. Feel free to ask questions. The radioactive iodine is then brought to you in a lead container. You swallow the capsule(s) whole with a full glass of water. You then leave the hospital right away and follow the special precautions.

## What happens at the follow-up appointment?

You come to the Nuclear Medicine Department. This appointment takes about 1 hour as a machine takes a picture of your whole body.

## In-Patient treatment

### What happens in the hospital?

Since radioactive iodine may be transferred by any body fluid, anything you touch may have radiation on it. Therefore you use items such as disposable dishes. Permanent fixtures and furnishings in your room are also covered with disposable pads for easy cleaning.

Although there is nothing about this treatment that causes nausea, if you should feel sick and cannot get to the toilet, use a basin or trash can.

To reduce radiation exposure, nurses are only able to help you when needed. When attending to your needs, all members of the health care team wear gloves and other protective gear to prevent radioactive iodine contamination.

You have a television and telephone with local calling in your room. To call long distance, you need to bring your own calling card.

You cannot have any wireless equipment in the room. This means you cannot use a cell phone or laptop with wireless internet service. You can bring a DVD player and/or a radio.

### How is the treatment given?

The radioactive iodine is brought to you in a lead container by a Nuclear Medicine technologist and doctor. At this time, the technologist and/or doctor remind you of the special precautions to follow. You are also given your follow-up appointment for your body scan. You then swallow the capsule whole with a full glass of water. The technologist and doctor leave your room and you start to follow the special precautions.

### May I have visitors?

No.

### How do I get my meals?

Your meals are brought to you and you eat in your room. The person delivering and picking up your tray follows special precautions too.

### How do I handle my personal needs?

Bring your own personal items. For example, bring soap, shampoo, a toothbrush and toothpaste. You can wear your own clothing or you can have a supply of hospital gowns in your room. Since your skin may have radioiodine on it due to sweat, you **must** shower 2 times and wash your hair at least once a day. Put on clean clothes after every shower.

### What guidelines do I need to follow during my stay?

You need to keep up with your personal hygiene. You also need to follow these guidelines in your room:

- Put all leftover food and disposal items such as paper plates, forks, knives, spoons, and cardboard into a small plastic bag after each meal. If you have a snack, bag these leftovers too.
- At the end of each day you should have at least 3 small bags.
- Put all small bags into the large garbage can in your room.
- Make sure nothing is loose in the garbage can in your room.
- Flush all tissues and toilet paper down the toilet.
- Put paper towels in the garbage can in the bathroom.

### How long will I be in the hospital?

The amount of time you stay in the hospital depends on the amount of radioactive iodine that has been given and how your body responds. Most people stay **24 to 72 hours**.

You may be able to speed up the process by drinking a lot of fluids. However, follow the instructions you are given. For example, some people with certain health problems may be advised to limit fluids.

A Nuclear Medicine technologist comes to your room to monitor your radiation exposure. When you are within safe limits, you go home.

### Do I need to follow precautions at home?

Yes. Even though the amount of iodine in your body is very low after discharge, a small amount remains for several months. Before you leave the hospital, you are given guidelines to follow to reduce radiation exposure to others.