HEALTH SYSTEM
UNIVERSITY OF MICHIGAN

Guidelines for Patients Receiving Radioiodine Treatment

Your doctor advised you to receive treatment with radioiodine, a radioactive form of iodine.

This material includes some special instructions to follow during and after your treatment. Use it as a guideline to discuss your particular situation with your doctor to help you make more informed decisions.

Why Will I Receive Radioiodine Treatment?

Radioactive iodine I-131 (radioiodine) is the most appropriate treatment for your thyroid condition. The radiation given off by this form of iodine eliminates the function of thyroid cells and thyroid cancer cells and inhibits their ability to grow, which is the desired and beneficial medical effect of the treatment.

Who Is the Best Source of Information Concerning My Condition and Treatment?

Your doctor is the best source of information concerning your condition and treatment. This material is designed to help answer some of the most frequently asked questions regarding radioiodine treatment. It lists some guidelines for you to follow for a short time immediately after your treatment as recommended by your doctor.

How Does Radioiodine Work?

Radioiodine is used to treat overactive thyroid glands and certain kinds of thyroid cancer.

The thyroid gland absorbs iodine from the food you eat and uses this iodine to perform its normal function, which is to make the thyroid hormone.

Radioiodine is iodine that has added radioactive particles that inhibit the growth of cells. Radioiodine is used to treat several conditions:

- **Overactive Thyroid Glands (hyperthyroidism) -** Radioiodine destroys the abnormal thyroid cells that cause the thyroid gland to be overactive
- **Thyroid Cancer** - radioiodine helps to destroy thyroid cancer cells. Larger doses of radioiodine may be used after thyroid cancer surgery to destroy any remaining diseased thyroid tissue.

How Safe Is Radioiodine?

Using radioiodine to treat abnormal thyroid cells is a common, well-accepted form of treatment that has been used all over the world for more than 50 years. Most of the radiation from the radioiodine will be absorbed in your thyroid gland, but other tissues in your body will receive some incidental radiation. This small amount of radiation typically does not produce any negative effect.

How Long Does the Radioiodine Stay In My Body?

The radioiodine from your treatment will temporarily remain in your body. Most of the radioiodine not collected by your thyroid gland will be eliminated within the first 2 days after your treatment. Radioiodine leaves your body primarily in your urine, but very small amounts may leave in your saliva, sweat, and feces.

The amount of radioiodine remaining in your thyroid tissue after the rest leaves your body is responsible for treating the thyroid cells. However, this amount also decreases with time. Eventually, all radioiodine will leave your body.

Can Others Be Exposed to Radiation From the Radioiodine Given to Me?

Yes, exposure to radiation from the radioiodine in your body may occur if other people remain very close to you for extended periods of time during the first few days after your treatment. Try to keep the time you spend in close contact with others to a minimum during this time. Contamination with radioiodine can occur if it is deposited in any place where other people may have contact with it. For example, if some of the radioiodine in your saliva gets on the bathroom

counter as you brush your teeth and another person's hands touch this saliva, the radioiodine in that saliva is then taken into that person's body from the hands or from food that they have touched. This will cause a small amount of radiation exposure to that person.

Radioiodine decays and disappears by itself overtime. This is part of the physical processes that make it radioactive. For example, the amount of radiation in the saliva left on the counter will be reduced by one-half every 8 days. This is what is meant when it is said that the "half-life" of radioiodine is 8 days.

How Can I Reduce Radiation Exposure To Others?

The amount of radioiodine in your body during the treatment is small. Although there is no evidence that the radiation from this amount of radioiodine will cause any problem, it makes sense to take steps to minimize exposure to others. If you follow these simple precautions during the first few days after your treatment, you can eliminate or reduce the possibility of radiation exposure to others:

Three basic principles to keep in mind:

- **Time**
  Minimize your time spent in close contact with others. The amount of radiation exposure that another person may receive depends on how long you remain close to them.
- **Distance**
  Do not remain in close contact with others for longer than is needed. The greater the distance you are from others, the less radiation they will receive. Even an increase in distance of just a foot or two will greatly reduce the exposure they receive.
- **Hygiene**
  Maintain good toilet hygiene. Good hygiene will minimize the possibility that other people will be contaminated with the radioiodine that leaves your

body. Most of the radioiodine leaves your body in your urine, so good toilet hygiene and careful and thorough washing of your hands will reduce the possibility of contamination. Since radioiodine may also leave your body in your sweat, consider skipping your workout at the gym for a day or two.

What Are Some Guidelines To Help Me Apply These Precautions?

The following guidelines will help to minimize exposure to others. Ask your doctor to help you decide which guidelines are important for you and how long you should follow them. Do not hesitate to ask your doctor for more information.

- Sleep alone for the first few days after your treatment.
- Avoid kissing or sexual intercourse during this time
- Avoid prolonged physical contact. This is particularly important in regards to contact with children and pregnant women because the thyroid glands of children and the unborn are more sensitive to the effects of radiation than those of adults.
- Wash your hands thoroughly with soap and plenty of water each time you go to the toilet.
- Keep the toilet especially clean. Be sure to flush it 2 or 3 times after each use.
- Rinse the bathroom sink and tub thoroughly after you use them. Clean bathroom habits will reduce the chances of others becoming contaminated by the radioiodine in your saliva and sweat.
- Drink plenty of liquids such as water or juices. This will make you urinate more frequently and help the radioiodine to leave your body more rapidly, thus lowering the amount of radioiodine remaining in your body.
- Use disposable eating utensils for the first few days after treatment, or wash your utensils separately. This will reduce the chance of contaminating other family members with the radioiodine in your saliva.

- Use separate towels and washcloths. Launder your bath towels, bed linens, and underclothing separately.

Additional guidelines for women:

- If you are pregnant, or think you could be, tell your doctor because radioiodine treatment should not be given during pregnancy. Also, if you are planning to become pregnant, consult with your doctor who can advise you on how long you should wait after treatment.
- If you have a baby, or you are taking care of one, be sure to get specific instructions from your doctor.
- If you have been breast feeding your baby, you must stop prior to administration of radioactive iodine therapy. Radioiodine passes into the breast milk and may cause unwanted effects in the nursing baby, such as an underactive thyroid. Ask your doctor how long you have to wait between stopping breastfeeding and starting radioiodine treatment.