

Radioiodine Treatment

IMAGING SERVICES



Cayuga
MEDICAL CENTER

A Member of Cayuga Health System

Welcome to the Department of Imaging Services at Cayuga Medical Center

We are here to assist in the diagnosis of medical conditions and orthopedic injuries using various forms of radiography and imaging technology. We want to make you as comfortable as possible during your exam, while providing timely, thorough, and accurate diagnostic information to your doctor.

The information in this brochure will tell you about the imaging study for which you are scheduled. If you have additional questions, please feel free to call **(607) 274-4376** and ask for the diagnostic supervisor. This person will be able to help you.

About our Imaging Services



Cayuga Medical Center has a commitment to and reputation for staying abreast of changing technology and our imaging equipment is state-of-the-art. Our range of services is comprehensive and we offer all imaging modalities found in major medical centers. Radiologists are on site at all three of our locations, which also distinguishes the level of service we provide.

Imaging Services is staffed by six board certified radiologists, many of whom are sub-specialists in areas such as neuroradiology, abdominal CT, and interventional procedures. Assisting them are experienced radiologic technologists and sonographers, many of whom have completed advanced training and are certified in specialty modalities.

Radioiodine Treatment

Why will you receive radioiodine treatment?

You will receive radioiodine because you and your doctor have agreed to it as the most appropriate treatment for your thyroid condition. Most of the radiation from the radioiodine will be absorbed by your thyroid gland and will interfere with the function of the thyroid cells. This is the desired and beneficial medical effect of the treatment. However, some of the radiation will leave your body, and individuals who are in close physical contact with you may be exposed to small amounts. There is no evidence that such exposure has ever caused any harm. Nevertheless, efforts should always be made to avoid unnecessary exposure to radiation.

Ask your doctor

The best source of additional information about your treatment is your doctor. This pamphlet provides some guidelines for you to follow for a short time immediately after your treatment, (*usually no more than 2 to 5 days, depending on your treatment and your doctor's instructions*). The guidelines offer steps you can take to reduce radiation exposure to others after your treatment. However, you may decide, or your personal situation may require, that you will want to follow all or only some of the suggested guidelines. Remember, these are only suggestions to help you make more informed decisions as you discuss your questions and concerns with your doctor.

How does radioiodine work?

The thyroid gland accumulates the iodine that enters the body in food and uses this iodine to perform its normal function, which is to make thyroid hormone. Radioiodine is similarly collected by the thyroid gland. The radiation given off by this form of iodine decreases the function of the thyroid cells and inhibits their ability to grow. This is the desired medical effect and the reason you will be given this medication. Radioiodine

treatment is a common, well accepted form of treatment that has been used all over the world for more than 30 years.

Most of the radiation from the radioiodine will be received by your thyroid gland. However the other tissues in your body will receive some incidental radiation. This small amount of radiation has not been shown to produce any adverse effect.

How long does the radioiodine stay in your body?

The radioiodine from your treatment will remain in your body only temporarily. Most of the radioiodine not collected by your thyroid gland will be eliminated during 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 is responsible for the desired medical effect. However, this amount also decreases rapidly. This means that the possibility of radiation exposure to you and others is reduced with time. At the end of treatment, no radioiodine remains in your body.

How can others be exposed to radiation from the radioiodine given to you?

Exposure to radiation from the radioiodine in your body may occur if other people remain very close to you for long periods of time. The radiation received is very similar to the radiation from medical and dental X-rays, which are the most common and familiar sources of external radiation exposure.

Contamination with radioiodine can occur if it is deposited in any place where other people may have contact with it. For instance, if some of the radioiodine in your saliva gets on the bathroom sinks as you brush your teeth and then on to someone's hands, contamination has occurred. If this radioiodine is then taken into someone's body from the hands or from food that has been touched, it will cause a small amount of radiation exposure to that person.

Radioiodine disappears by itself as part of the physical processes that make it radioactive. For example, it will not remain in the sink indefinitely because its quantity is reduced by one-half every 8 days. This is what is meant when it is said that the “*half-life*” of the radionuclide is 8 days.

How can you 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, no matter how small. If you take some simple precautions during the first few days after your treatment you can reduce or eliminate the possibility of radiation exposure to others.

There are three basic principles to remember:

- 1 Distance.** The greater the distance you are from others, the less radiation they will receive. Even an increase in distance of a few feet will greatly reduce the exposure. So try not to remain in close contact with others for longer than necessary.
- 2 Time.** Radiation exposure to others depends on how long you remain close to them. You should try to minimize the time spent in close contact with others.
- 3 Hygiene.** Good hygiene minimizes the possibility that other people will be contaminated with the radioiodine that leaves your body in your urine, good toilet hygiene and careful and thorough washing of your hands will reduce the possibility of contamination.

Your doctor can best recommend 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. During this period, avoid kissing or sexual intercourse.
- Also avoid prolonged physical contact, particularly with children and pregnant women; the thyroid glands of children and the fetuses are more sensitive to the effects of radioiodine than those of adults.
- If you have a baby, or are taking care of one, your doctor can best instruct you on the following guidelines. You probably can do all the things necessary to care for your baby. However, it is preferable not to have the baby too close, such as sitting in your lap, for more than a short time during the first 2 days after treatment.
- If you have been breastfeeding your baby, you must stop because radioiodine is secreted in breast milk.
- 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, ask your doctor how long you should wait after treatment. It is recommended that you do not try to become pregnant for at least 6 months after you receive radioiodine treatment.
- A negative pregnancy test is required for all female patients of child bearing age. (*Serum only acceptable, NOT urine*).
- Wash your hands with soap and plenty of water each time after you go to the toilet.
- Keep the toilet especially clean. Flush it two or three times after each use.
- Rinse the bathroom sink and tub thoroughly after you use them. Clean bathroom practices will reduce the chances of others becoming contaminated from 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 in your body.

- Use separate (*or disposable*) eating utensils for the first few days and wash them separately. This will reduce the chance of contaminating other family members with the radioiodine in your saliva.
- Use separate towels and wash cloths. Launder your bath towels, bed linens and underclothing separately.

You will be given a radiation exposure report at the time of your treatment. This report states the amount of radioiodine as well as the length of time it will be detectable.

This is important to carry with you at all times as you will set off radiation detectors that are common place at airports, tunnels, etc.

What to expect the day of your appointment

- 1** Register in admissions.
- 2** The nuclear medicine technologist will interview you prior to administering the radioiodine.
- 3** The radiologist will explain procedure and obtain written informed consent.
- 4** The radiologist will explain the expected benefits and possible complications.
- 5** The radiologist will explain procedure and obtain written informed consent.
- 6** Radioiodine is ingested orally. Radioiodine is in capsule form.

Preparation:

- You must discontinue iodide containing preparations. No CT contrast for 3 weeks prior to your appointment.
- Discontinue anti-thyroid medications for 3 days prior to appointment. (*Check with your doctor*).
- Discontinue thyroid hormones. (*Check with your doctor as these medications have variable times to be discontinued*).

- Discontinue kelps, agar, carrageen, topical iodide.
- Amiodarone should be discontinued for 3 months prior to radioiodine treatment. This is an anti-arrhythmic drug, do not discontinue without guidance from your doctor.
- All women of child bearing age, 12-55, who have their uterus and ovaries will need a negative serum pregnancy test prior to receiving radioiodine therapy.

Where is the test performed?

Your radioiodine treatment will be performed in the Imaging Services Department of Cayuga Medical Center.

For any questions regarding radiation safety, call Nuclear Medicine at Cayuga Medical Center from 7:00 a.m. to 3:00 p.m. at (607) 274-4270.

Medical questions should be referred to your doctor at:

NAME _____	
APPOINTMENT DATE _____	TIME _____



Imaging Services Location:

Cayuga Medical Center
 101 Dates Drive
 Ithaca, New York 14850



(607) 274-4376

www.cayugamed.org

