Your Cat's Radioactive Iodine Treatment for Hyperthyroidism

Tammy P. Sadek, DVM Radiation Safety Officer

Cat Hyperthyroid Radioactive Iodine Services, LLC

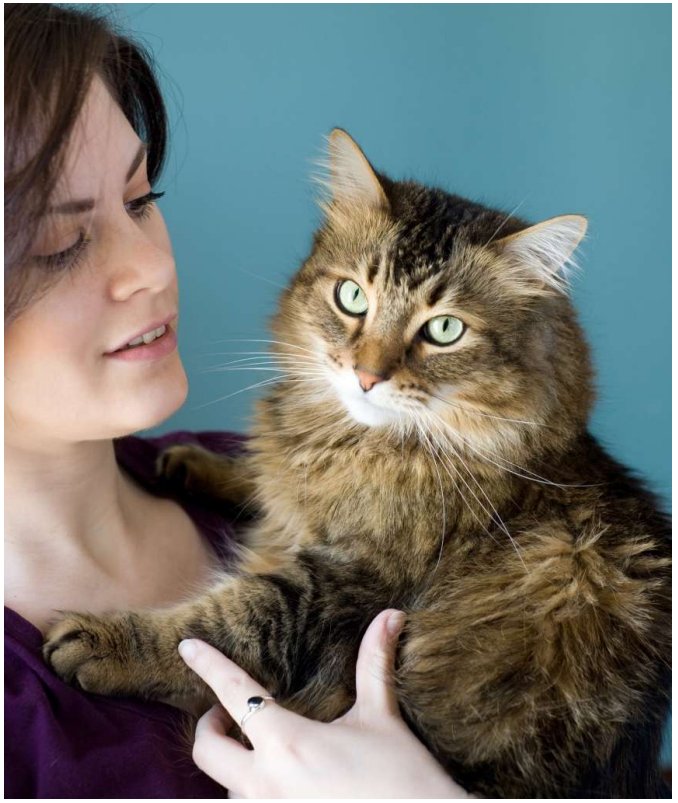
tsadekdvm@icloud.com

Welcome!

- We are looking forward to helping you and your cat!
- Here is some important information about your cat's radioactive iodine treatment for hyperthyroidism.

Hyperthyroidism

- Hyperthyroidism is the overproduction of thyroid hormone by one or both of your cat's thyroid glands.
- It is caused by the development of growths (tumors, usually benign) in the thyroid gland that produce too much thyroid hormone and do not respond to the normal checks and balances of the thyroid hormone cycle.

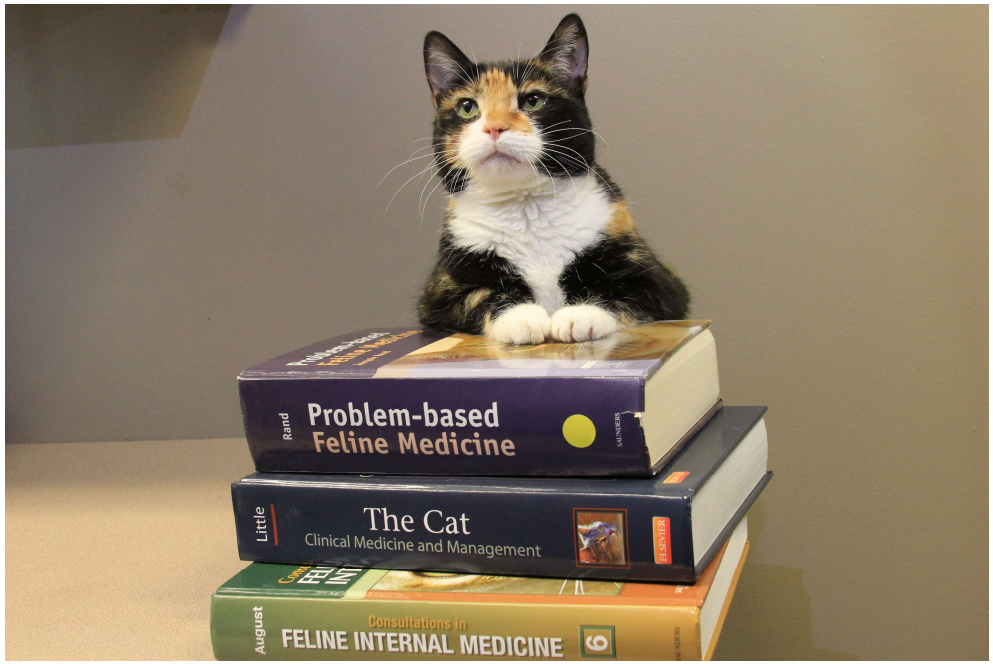


What happens if hyperthyroidism is not treated?

- Too much thyroid hormone revs up the body's metabolism. Cats often eat voraciously, are active and irritable, may howl, and sometimes have vomiting or diarrhea.
- Hyperthyroidism leads to severe weight loss, high blood pressure, loss of muscle mass, and eventually heart failure and death if left untreated.

Treatment options for hyperthyroidism

- Methimazole: medication that controls the symptoms but not the disease
- Y/D food: low iodine food that may control symptoms but not the disease
- Surgery: usually cures hyperthyroidism but higher risk due to anesthesia and surgical complications
- Radioactive iodine- highest cure rate, lowest complication rate so considered the best option for many but not all cats



Radioactive Iodine (I131) Treatment

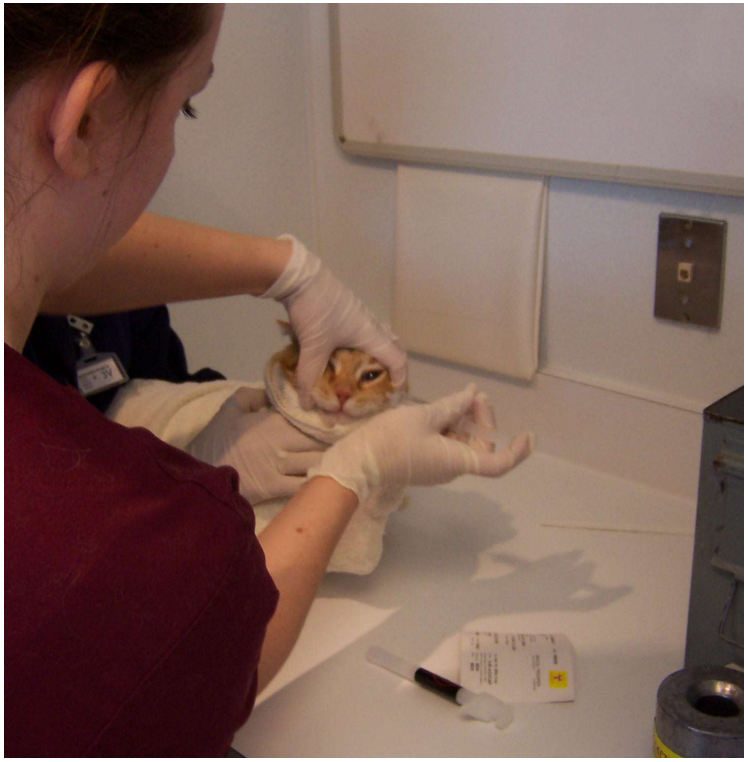
- Cats receive a capsule (used here) or injection of radioactive iodine, which is absorbed by the active thyroid tumor ells. The radiation destroys these cells but not the normal inactive cells
- After the treatment, cats need to stay quarantined in the radiation room until they excrete most of the I131.

Pre-treatment testing

- We need to make sure your cat is a good candidate for radioactive iodine treatment.
- Your cat will need an examination, lab work including a CBC, blood chemistry, electrolytes, a T4 (off methimazole) +/- TSH test, and a urinalysis within 30 days of the treatment.
- Your cat will also need to have a chest X ray taken to look for any signs of cancer or heart failure.

Administration of the I131 capsule

- When your cat arrives at our hospital, we will examine them, and give them medication to help reduce stress, anxiety, and the chance of vomiting.
- After the medications take effect, your cat will receive a capsule of radioactive iodine, and be monitored for several hours.



Hospital quarantine

- As long as your cat does not vomit during the monitoring period, we will get it settled into its home away from home with food, water, treats, bedding, etc.
- You will have access to webcams to watch your cat now.
- If your cat does vomit, we will need to re-treat your cat, which will usually be the next day.

Hospital radiation monitoring

- We monitor both your cat's level of radiation, and the hospital level of radiation to make sure that everyone is safe and not exposed to too much radiation.
- We also monitor our staff's exposure to radiation to make sure they too are safe.

Radiation room hospital amenities and care

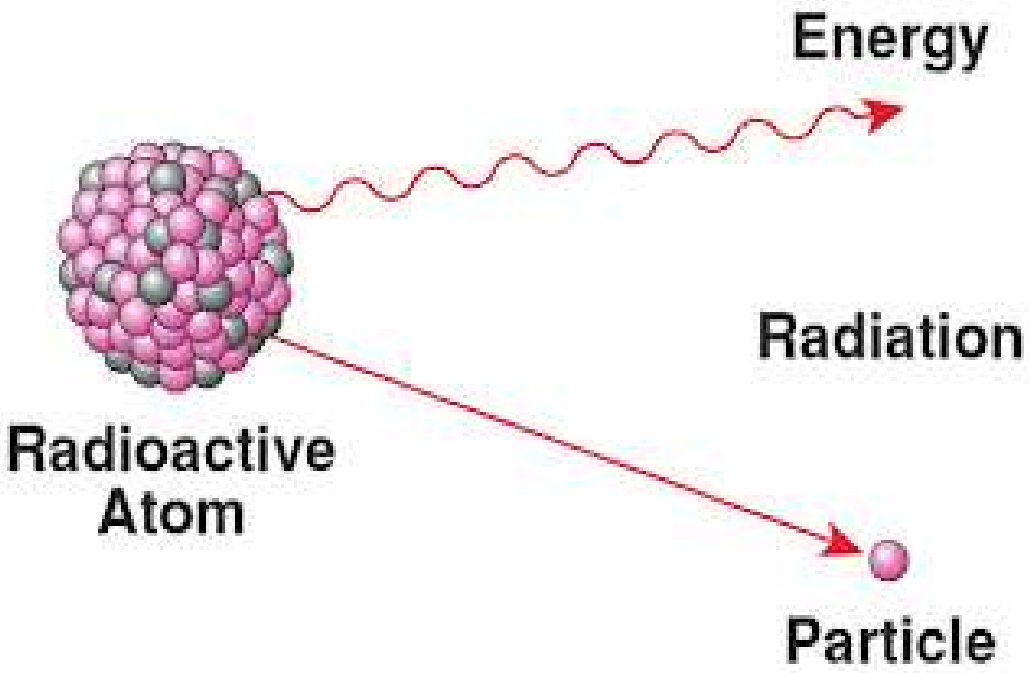
- Your kitty will have comfortable, cat friendly quarters during their stay with us.
- We will make sure your kitty receives their food and treats and keep close watch over them.

When can my cat come home?

- When your cat's radiation levels reach a safe level for home care, we will release them to your for home quarantine.
- Your cat will excrete the radiation in their urine and stool. Any radiation not excreted will decrease with time (decay).

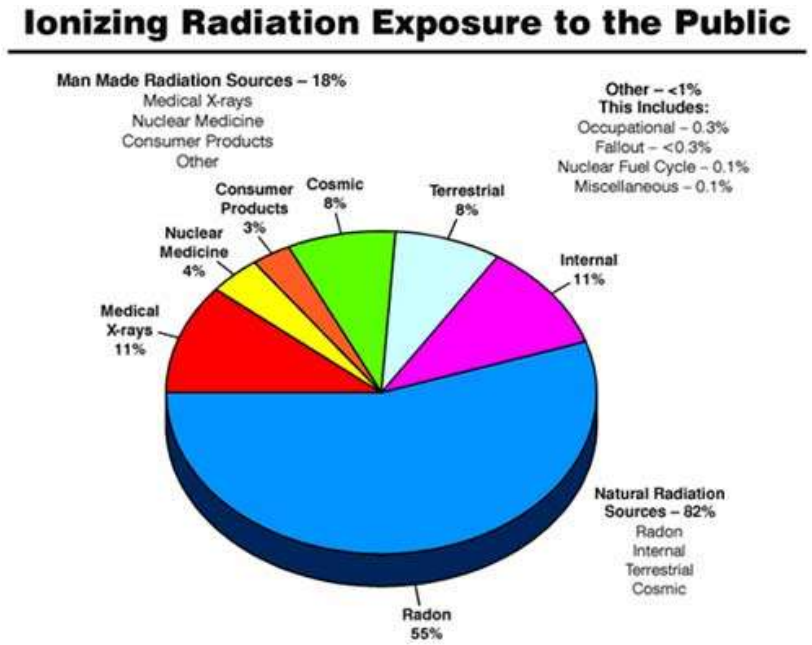
What is radiation?

- Radiation occurs when an unstable atom releases energy and/or particles over time.
- We are always exposed to radiation, such as sunlight, cosmic rays, radiation from the soil, our food, and the general environment, in addition to work and medical exposure



Why do we need to be concerned about radiation?

- This picture illustrates how most people are exposed to radiation. Most of our exposure is from natural sources of radiation, especially radon and cosmic rays.
- Excessive radiation can be harmful to our bodies and can cause cancer. We only want to be exposed to safe levels of radiation.



The above chart is taken from the National Council on Radiation Protection and Measurements (NCRP) Report No. 93, "Ionizing Radiation Exposure of the Population of the United States," 1987.

This chart shows that natural sources of radiation account for about 82% of all public exposure while man-made sources account for the remaining 18%.

Home quarantine

- By the time your cat goes home, they only have very small levels of radiation still present in their body. However, we do need to follow the home quarantine rules to keep from being exposed to more radiation than is recommended.
- Your cat needs to stay in a separate room away from you for 7 days, or 14 days if there are pregnant women or children under 18 years of age in the home. They must stay in the house for 14 days.
- Each adult has 30 minutes per day to care for your cat in the room. Spend this time at 3 feet distance (no cuddling)

Home litter box management

- During the first 7 days, you must use a clumping flushable cat litter, scoop it twice a day, and flush the clumps and stool down the toilet. The remaining litter can be disposed of in the garbage after the first 7 days as long as you scooped the waste diligently.
- Alternatively, you may hold all the waste and litter for 81 days and then dispose in the trash.
- For the first 7 days, there can be enough radiation present in the waste to set off garbage dump site detectors which could lead to a fine, so do not put the waste in the trash.

Pregnant women and children under 18 years of age

- The DNA of the fetus and of children is more sensitive to the effects of radiation then the DNA of adults.
- Consequently, children and pregnant women cannot care for the cat or go into the quarantine room for 14 days after the cat goes home. No co-sleeping or snuggling.

Emergency care if needed

- If your cat experiences an emergency during the home quarantine period, please call us immediately and bring your cat back to us for care.
- If the emergency is after hours and we are not available, please follow the emergency instructions you received and give these instructions to the emergency facility staff. We do not want their staff to be exposed to radiation without proper guidance.

Necessary follow up veterinary care

- Follow up care is important for your cat.
- Your cat needs to have follow up lab testing done 3-4 weeks after getting home, and then at 3 months, 6 months and 12 months or as your veterinarian recommends.

Why is it important to have follow up lab work performed?

- We need to make sure that the I131 treatment was effective and that your cat's hyperthyroidism is cured. We also need to make sure that if it becomes hypothyroid (low thyroid levels) we can detect that and supplement with thyroid hormone. Low thyroid hormone levels can cause kidney issues which we want to prevent.

Most cats do extremely well with I131 treatment!

- Most cats (around 94-95% of cats) are cured with one dose of I131.
- Some cats may need a second dose, or other treatment.
- A small number of cats have a cancerous form of hyperthyroidism, which may be resistant to radiation.
- Some cats (5-10%) can develop low thyroid levels, which may be temporary or longer lasting and may require thyroid supplementation.
- Most cats , however, do not need any long- term medication after their radioactive iodine treatment and do very well after treatment.

Please contact us if questions or concerns!