



# RADIOACTIVE IODINE ( $^{131}\text{I}$ ) FOR TREATMENT OF FELINE HYPERTHYROIDISM



## Information for Owners

Purdue University  
Veterinary Teaching Hospital

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### Why has my veterinarian referred me to Purdue-Veterinary Teaching Hospital?

Your cat has come to Purdue because it is either suspected or has been confirmed to have hyperthyroidism (an overactive thyroid gland). Purdue VTH is one of the few facilities in Indiana that can administer this unique and highly successful therapy.

### What are the clinical signs you or your veterinarian observed in your cat?

You or your veterinarian may have observed one or more of the following signs: weight loss, vomiting, diarrhea, excitability, rapid heart rate, panting, excessive eating (or occasionally poor appetite), unkempt hair coat, or a mass in the neck.

### What testing is involved in the diagnosis of feline hyperthyroidism?

The diagnosis of hyperthyroidism is made by measurement of abnormally high blood concentrations of a thyroid hormone called thyroxine (T<sub>4</sub>). Additional testing that should be performed in cats with hyperthyroidism includes a complete blood count, blood serum chemistry, urinalysis, radiographs of the chest, and an evaluation of the heart. These tests allow us to determine the overall health of your cat and evaluate the presence of other diseases that might affect the choice of therapy. In particular, we want to evaluate the heart because hyperthyroidism may have some deleterious effects on cardiac function. In some cases a special radioactive scan of the thyroid (technetium scan) may also be performed to better determine the location of the abnormal thyroid tissue.

### How long will the additional testing at the Purdue Veterinary Teaching Hospital take?

When your cat is admitted to the PUVTH, the testing, evaluation, and resulting reports will take 3-4 days to complete. Appointments are scheduled on Monday and Tuesday mornings, with treatment usually scheduled for Thursday or Friday of that week.

**\*\*\*Prior to testing, cats must be off oral antithyroid medication for 7 days.\*\*\***

### What are my treatment options once a diagnosis is made?

- ❖ **Medical treatment** using an anti-thyroid drug (methimazole-Tapazole®) is inexpensive, but requires life-long administration of pills, usually twice daily.
- ❖ **Surgical removal** of the thyroid gland is also an effective treatment for hyperthyroidism. Disadvantages of surgery include the risk of anesthesia and the possibility of damaging the parathyroid glands, which are located close to the thyroid glands and are responsible for calcium regulation.
- ❖ **Radioactive iodine** is considered by many to be the treatment of choice for most hyperthyroid cats, because it is both safe and highly effective (more than 98%).

**What is radioactive iodine <sup>131</sup>I treatment?**

Radioactive iodine (<sup>131</sup>I) is a radioactive material that is administered once subcutaneously (under the skin) and is approximately 95% effective in treating hyperthyroidism in cats.

**How long will my cat be at PUVTH for (<sup>131</sup>I) treatment?**

Because (<sup>131</sup>I) is a radioactive material, cats must be kept in isolation for approximately 1-3 weeks. During this time, your cat will have only minimal handling although a veterinarian will check your cat daily. An animal caretaker will visit your cat 2 times a day. A radio in the isolation ward will keep your cat company during this period. Once or twice weekly, a radiation safety officer will check the radioactivity level of your cat using a special counter. As soon as levels decrease to 1.0 mR/hr (for homes with children over 12 years of age and no pregnant women) or 0.1 mR/hr (for homes with children under age 12 and/or pregnant women), the cat can be released. (Initial levels immediately after treatment are approximately 10-12 mR/hr.)

**The total stay for work-up and treatment will be 2-4 weeks.**

**What restrictions will I have to observe once my cat is released after <sup>131</sup>I treatment?**

- ❖ Your cat must wear a collar or tag that says "Caution: Radioactive Material".
- ❖ Remain at least six feet away from the cat except for brief periods of necessary care.
- ❖ Children and pregnant women should have no contact with the cat.
- ❖ The cat must be confined to the owner’s property by leash or enclosed in a fenced area.
- ❖ Minimize contact with the cat, including arrangement for a separate sleeping room.
- ❖ Ensure that the cat uses its litter box. The box should be lined with plastic, and should be changed frequently and disposed of in outside trash.
- ❖ Care must be taken to wash your hands after handling the cat, its food dishes, or litter pans.
- ❖ These restrictions will remain in force until the levels of activity decrease to insignificant levels.
- ❖ This period would be approximately three weeks for animals released at 1.0 mR/hr and one week for animals released at 0.1 mR/hr.

**What is the cost for work-up and treatment with <sup>131</sup>I?**

The cost of evaluation and treatment for your cat will be approximately \$900-\$1,500. The exact cost will vary depending upon whether your cat has other concurrent health problems.

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If you have any further questions, contact your regular veterinarian who can consult with a specialist here at the PUVTH and advise you.

**Client Phone Lines**

Small Animal Hospital ..... (765) 494-1107 | *Referral Iodine Appointments: Monday or Tuesday only*