



Veterinary Health Center

University of Missouri

Feline Hyperthyroid Treatment Information

Thank you for your interest in radioactive iodine therapy for your hyperthyroid cat. We hope to answer your questions about this important decision for your companion.

Hyperthyroidism is the most common endocrine (hormone) disease in cats. Older cats are most commonly affected, and the disease is caused by a benign (not cancerous) growth in the thyroid gland 95 percent of the time. Because the underlying disease is often benign, hyperthyroidism can usually be cured with treatment. Signs of hyperthyroidism include weight loss in spite of increased appetite and food consumption, increased drinking and urinating, vomiting, diarrhea, excitability, hair coat changes, altered sleep patterns, and changes in breathing rate. Left untreated, hyperthyroid cats can die from heart failure. Duration and progression of signs are variable; some cats progress rapidly over weeks, and others progress more slowly.



Treatment modalities include daily pills given by mouth (methimazole or Tapazole®), surgical removal of thyroid glands and radioactive iodine (I 131). Your veterinarian has recommended I131 for your cat. This treatment involves administering an injection of iodine with a radioactive substance attached. This I131 injection accumulates in the abnormal thyroid tissue, and the radioactivity kills the abnormal tissue without harming other vital structures nearby. Because of the use of radioactivity, cats are kept in an isolation ward for five to seven days following treatment. During this time, handling is minimized and client visits are prohibited. One-time treatment is effective in greater than 90 percent of cats. Since the treatment only affects the abnormal tissue, most cats (approximately 90 percent) have normal return of thyroid function and do not need thyroid hormone supplements.

With any form of hyperthyroid treatment, blood tests for kidney function can become abnormal following normalization of thyroid function. The treatments do not injure the kidneys. However, hyperthyroidism can mask

underlying kidney disease because of the effects on kidney blood flow. In rare cases, cats can develop overt kidney failure. To evaluate for this risk, blood and urine tests should be evaluated prior to treatment. In many cases, your clinician may recommend a trial with methimazole (oral, or for cats difficult to administer pills, topical) to ensure that your cat is safe to undergo permanent treatment with radioactive iodine. The requirement of this trial is that the thyroid hormone concentration returns to the reference range and that concurrent blood tests and urinalysis support adequate kidney function. Your clinician will speak with you further about this risk based upon their examination and evaluation of blood and urine test results.

Blood chemistry, complete blood count (CBC), thyroid testing (T4) and urinalysis are required to be done within four weeks of your appointment. These tests can be done at the time of your appointment here, or by your veterinarian prior to referral. We also recommend a chest X-ray to screen for any other disease processes and to look for evidence of heart failure. During your visit here, a complete physical examination is performed by the student and veterinarian working together. Further thyroid evaluation (thyroid ultrasound or scan) is performed here to evaluate for the possibility of malignant thyroid cancer. This testing might require light sedation. Based on the exam and test results, we will recommend I131 treatment if we believe it is in your cat's best interest.

The I131 treatment is given by injection under the skin the day following your initial appointment. The isolation period begins following the injection. Cats are housed in a radiation isolation ward at the veterinary hospital in kennels specially designed to collect any waste products. Your cat will be visually evaluated twice daily for attitude, activity, respiratory pattern and restroom habits. Food and water intake is also evaluated during this time. Occasionally, very nervous cats will not eat during their hospital stay. In this event, we try to tempt cats with special foods to improve appetite. Cats are scanned for levels of radioactivity beginning on day five, and released from isolation when levels are acceptable (usually days five to seven). Cats will not be released from isolation on the weekend or on holidays because the scan is completed by officials from the main campus radiation safety office who are only on duty on weekdays. Upon release from radiation isolation, cats are bathed to remove residual traces of radioactivity excreted in the saliva and deposited on the coat from grooming.

Once at home, we recommend a three-week period of minimal handling (less than an hour of direct contact a day). Waste should be cleaned from the litter box daily, and whoever is cleaning the box should wear gloves. This precaution is to minimize your family's exposure to any trace amounts of radioactivity. Pregnant women should have other household members clean the litter box, and should avoid contact with their cat altogether during this time. Other pets in the household would only be at risk if they have extensive direct physical contact. Your veterinarian will need to recheck thyroid and kidney values in a month, and thereafter as recommended.

If your cat has received methimazole (Tapazole®) for treatment, you must discontinue this drug for at least two weeks prior to treatment to ensure the I131 works appropriately. If your veterinarian has any question as to how well the kidneys will function after treatment, a trial course of Tapazole® before I131 treatment may be a good idea. We would be glad to speak with your veterinarian if he or she has concerns.

The cost of the office visit, treatment, hospital stay and necessary testing is approximately \$1,500 to \$1,800. The Veterinary Health Center requires a 50 percent deposit at the start of hospitalization, and the balance at the time of discharge. Payment can be made by cash, check or credit card. A financing option is available through UAS.

Thank you for your interest in our treatment plan. If you are ready to schedule an appointment, please call the appointment desk at 573-882-7821. If you have questions, you may ask to speak to Matt Haight, the technician for Internal Medicine, when you call to schedule your appointment. We look forward to seeing you soon.

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