



Iodine 131 Therapy

FREQUENTLY ASKED QUESTIONS

Why do cats become hyperthyroid?

In most cats, hyperthyroidism is caused when a portion of the thyroid gland becomes overly active, loses its normal regulation, and secretes excessive amounts of thyroid hormone. However, in a small percentage of cats, hyperthyroidism is caused by thyroid cancer. It is important to determine which problem is present in your cat since the treatment and expectations for the future of your cat depend on the cause of hyperthyroidism. We attempt to answer this question during the evaluation of your cat before treatment.

How does Iodine 131 therapy treat hyperthyroidism?

Iodine is an element normally taken up in large amounts by the thyroid gland, even more so in cats that are hyperthyroid. When a radioactive form of iodine is given to hyperthyroid cats, the radiation destroys a portion of the thyroid gland. In most cases, only enough radioiodine is given to destroy that part of the gland that is functioning abnormally; these cats return to normal thyroid function following treatment. Because cats undergoing this treatment emit radiation while the radioiodine is in their body, they must be temporarily isolated from people and other animals during the treatment period.

Which cats can be treated with radioiodine (Iodine 131)?

Radioiodine is an appropriate treatment for cats with hyperthyroidism that are in a stable medical condition. Because these cats are emitting radiation during this treatment, only basic care (feeding, cage cleaning) is provided during the isolation period to prevent excessive exposure to personnel. Only medications that can be mixed in the cat's food will be administered. There can be no exceptions to this policy for radiation safety reasons. Cats that are medically unstable and require daily medical support are not candidates for this type of therapy.

How long will my cat be in isolation?

The length of isolation depends on how quickly the levels of radiation emitted from your cat decline. For most cats treated at the University of Tennessee, this period lasts approximately 6 to 10 days, making the total stay in the hospital approximately 8 to 14 days. However, each cat eliminates the radioactive iodine at different rates and some may require a slightly longer hospitalization. For this reason, a specific date of release for your cat cannot be given. Please do not request a guaranteed release date.

May I visit my cat while it is at UTCVM getting treatment?

For radiation safety reasons, visitation is not allowed during the isolation treatment period.

Should my cat receive anti-thyroid drugs (Tapazole®, methimazole) prior to radioiodine therapy?

Many cats referred to the UTCVM for radioiodine therapy are currently or have previously been given anti-thyroid drugs. Prior to treatment with radioiodine, your cat will undergo a thyroid scan to confirm the diagnosis and better assess the thyroid gland. Tapazole® can alter the result of this scan. In addition, anti-thyroid drugs are known to decrease the radiation dose to the thyroid gland. For these reasons, if your cat is relatively stable without Tapazole®, you should discontinue treatment two weeks prior to your appointment at UTCVM. However, if your cat requires Tapazole in order to maintain medical stability, you should not discontinue the drug.

What is involved in a pre-treatment evaluation?

Blood and urine tests and chest x-rays are made to evaluate the overall medical condition of your cat. Many of the tests previously performed by your veterinarian may be repeated in order to have the most up to date information at the time of treatment. A nuclear medicine thyroid scan will be performed to get an image of your cat's thyroid gland. This is a special kind of image which gives information about the function of the gland. A heart specialist may examine cats with heart disease.

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Additional tests to evaluate kidney function may be performed. Many older cats, including those with hyperthyroidism, have decreased kidney function. In the early stages of kidney disease, routine blood tests may be normal.

Will my cat be radioactive when he/she comes home?

Your cat will continue to emit a minimal, but detectable, level of radiation at the time of discharge. This low level of radiation is considered safe by the University of Tennessee Radiation Safety Officer and the State of Tennessee. In fact, most people who receive the same kind of treatment are sent home the same day of treatment with no major restrictions. However, in an attempt to minimize radiation exposure to all people to a level as low as reasonably achievable, we recommend that direct contact with your cat be minimized during the first two weeks following treatment. Prolonged contact such as the cat sleeping on your bed or sitting for a long period in your lap is discouraged. We also require that your cat not have close contact with children or pregnant women during this period. Association of your cat with any other pets you might have is not considered a problem. At the time of release of your cat from the hospital, you will be asked to sign a paper indicating your understanding of and agreement to these precautionary procedures.

Are there major side effects of radioiodine treatment?

All the noticeable effects of radioiodine treatment are good ones, with a few exceptions. Most cats return to normal thyroid function within days of treatment, many being normal by the time of release from the hospital. With normally functioning thyroid glands, the clinical signs of hyperthyroidism (weight loss, hyperactivity, vomiting, skin disease, heart disease, etc.) will slowly disappear. Assuming no other medical problems, your cat should return to a normal state of health.

In a small percentage of cats, thyroid function may become lower than normal. These cats usually show no signs of this condition, but daily hormone supplementation is required.

Though unlikely, it is possible that no measurable response to therapy will be seen and thyroid hormone blood levels will remain high. In some cases, no obvious reason is determined, however; a common cause for this lack of response is the presence of thyroid cancer. While every attempt is made to detect thyroid cancer before treatment, this is not possible in all cases. Cats with this condition require more extensive treatment.

Do I need to bring my cat back to UTCVM for follow-up testing?

No, the follow-up blood tests to check thyroid hormone levels can be done by your primary veterinarian.