

Owner Guidelines for I-131 Therapy

What is Iodine 131 therapy?

I-131 therapy is one of the simplest, safest and most effective methods of treating feline hyperthyroidism. In addition, patients treated with I-131 therapy have a longer median survival time than patients treated with methimazole alone. I-131 therapy involves a single injection of radioactive iodine; the I-131 is carried to the abnormal thyroid tissue that is present in the gland or elsewhere and destroys that tissue. The I-131 does not affect other tissues in the body. It is then excreted by the kidneys.

What are the requirements to be a candidate for I-131 therapy?

- Diagnosis of hyperthyroidism
- No concurrent conditions that would make isolation contraindicated; this will be evaluated on a case by case basis.
- The cat must be able to take all oral medications in food (cannot be pilled or injected during isolation)
- The cat must be off methimazole for 3 days prior to treatment.

What is the process for I-131 therapy?

To begin the process, please schedule an appointment with the Small Animal Internal Medicine service at the Veterinary Teaching Hospital (217-333-5300) and ask your veterinarian to send all of your cat's records to the hospital. Three days prior to the appointment, discontinue methimazole, if your cat is receiving this medication. At the appointment, an internal medicine doctor will review your cat's case and discuss the pros and cons of I-131 therapy with you. Diagnostics will be recommended to fully assess your cat's health status. At minimum, a total T4 will be performed. A complete blood count, serum biochemistry panel, and urinalysis must also be performed, although this can be performed at your veterinarian's office the week prior to the visit. Additional diagnostics may also be discussed including x-rays of the chest and ultrasound of the abdomen and/or heart.

If you choose to proceed with I-131 therapy, your cat will be hospitalized overnight. The next morning, they will receive a mild sedative and an intravenous catheter for administration of the radioactive iodine. After the injection, your cat will be isolated to prevent spread of the radioactivity. While in isolation, your cat will be checked twice daily and routine care provided. If your cat is on medications other than methimazole, these can only be administered in the food (no pilling or injections). Owners are allowed to bring food and other personal items for the cat's use in isolation, but these items and any excess food cannot be returned. You will receive an update once daily on your cat's status.

What is the cost for I-131 therapy at the U of I? Approximately \$1,700 to \$2,300.

How long is the patient required to be isolated and what happens when they are ready to go home?

State law mandates that cats be isolated until their radioactivity reaches a safe level. This requires a minimum of 5 days after treatment (e.g., injection on Wednesday, home on Monday at the earliest). Patients are required to stay longer if their radiation levels are too high; this is something that cannot be predicted. Once your cat's radiation levels have decreased to safe levels, you will be contacted and time for pick up scheduled.

What happens after the patient goes home?

You will be advised to restrict human contact with your cat for a period of weeks. There will also be stipulations regarding the handling of food and water bowls as well as litter. The specifics of these restrictions will be discussed at your appointment.

What follow-up testing is needed?

While I-131 therapy is very effective and in most cases a cure for hyperthyroidism, <5% cats will require a second treatment. The thyroid level generally normalizes within a few weeks after treatment. Treating hyperthyroidism can unmask underlying kidney disease so monitoring of renal values is also necessary. Additionally, some cats will become hypothyroid and may require thyroid hormone supplementation after the treatment. Therefore, we recommend checking a total T4, chemistry panel, and cTSH (thyroid stimulating hormone) level one month following treatment and then serially over the next year. The follow-up testing may be performed by your family veterinarian.