



Hyperthyroid Cats - Owner Information Sheet

Please spare a few minutes to read through this important information

Hyperthyroidism – What is it?

The thyroid gland is located in the neck, close to the trachea (windpipe). The gland produces thyroid hormone, which is carried in the blood to every cell in the body. Thyroid hormone controls the rate at which cells function: too much thyroid hormone makes cells work very fast, and too little causes cell function to slow down. Excess thyroid function (*hyperthyroidism*) is one of the most common diseases diagnosed in cats as they get older.

Cats can respond to hyperthyroidism differently, meaning that signs of the disease vary from cat to cat. Common things that owners notice in their cats are weight loss, increased hunger and thirst, patchy hair loss, or failure to groom (some cats have been observed to pull their hair out), and increased urination. Some cats are hyperactive and some persistently restless or nervous. Vomiting and diarrhoea (some cats produce unusually large amounts of stool) may also occur. Less commonly, owners might notice that their cats are panting, listless, having difficulty breathing, eating little, behaving oddly, or seeking cool places.

It is not known exactly why cats develop hyperthyroidism. A small number (about 2 – 3%) of hyperthyroid cats have a malignant (cancerous) thyroid tumour; but in the remainder, the disease is benign (it does not spread elsewhere). Diagnosing hyperthyroidism is relatively easy as most cats have too much thyroid hormone (thyroxine or 'T₄') in their blood, and this can be confirmed with a blood test.

Hyperthyroidism – how can we treat it?

Four common treatments are available for managing hyperthyroidism in cats, each with advantages and disadvantages. Hyperthyroid cats that are not treated tend to deteriorate, whereas treatment will usually either return your cat to a reasonable state of health, or may cure your cat completely. One treatment option is the use of an oral (pill or liquid) medication called carbimazole (Vidalta) or methimazole (Felimazole or Thyronorm) that works by preventing the thyroid gland from producing thyroid hormone. These drugs are readily available and not very expensive but, of course, cats are not always the best pill takers! Side effects from the pills - although rare - include vomiting, rashes, loss of appetite and sometimes blood abnormalities. Sometimes the medication is given on the ear instead, for trans-dermal absorption, although this is not a licensed product. An alternative medical option is to feed cats a special diet (Hill's Y/D) that is very low in iodine so that thyroid hormones (which incorporate this element) cannot be made. The problem with this treatment is that if your cat eats anything else; a small table scrap, a mouse or another cat's food the diet treatment will not be effective.

Surgery can be done to remove the abnormal thyroid gland. Surgery is not difficult, does not require fancy equipment, resolves the hyperthyroidism quickly, and can cure your cat permanently. The problems with surgery are that it does require anaesthesia and many hyperthyroid cats are older cats with other problems that could complicate the anaesthesia. Also, during the surgery, glands called the parathyroid glands (which regulate the body's calcium level and so are necessary for life) could be accidentally removed or damaged. If this happens, a replacement hormone will have to be given at least temporarily.

Like any treatment, surgery is not always successful, in particular if only one thyroid gland is removed, often surgery has to be repeated months to years later because there are two glands and often both are abnormal. Sometimes thyroid tissue is also present in the chest and cannot be easily reached surgically.

The fourth treatment option is the use of radioactive iodine. Iodine is used to make thyroid hormone. Iodine that is radioactive will destroy abnormal thyroid cells. This is an extremely effective treatment (about 95% of cats respond to a single injection) that resolves the hyperthyroidism quickly and painlessly. The iodine is injected under the skin in the scruff of the neck just like a vaccine.

The drawback is that cats then need to spend some time in a special isolation facility while they eliminate almost all of the radioactivity (in urine and due to radioactive decay) before returning home. Only a few veterinary centres are able to offer this type of treatment.

Is your cat a candidate for radioactive iodine treatment?

Most hyperthyroid cats are candidates for treatment with radioactive iodine. This is a simple checklist of requirements.

***** If you think that your cat will not fulfil any one of the following criteria, please ask your Vet to check with us as soon as possible. *****

- * Your cat must have a high thyroid hormone concentration confirmed by your Vet.
- * Your cat's general health must be good. During the time that he / she is with us, we are not able to handle him / her very much because of the radioactivity. We are not able to groom cats and, while medications may be placed in food, they cannot be given directly. We do not want cats to become unwell when they are with us because we cannot treat them without exposing the Vets and Nurses in the hospital to high levels of radioactivity; therefore if your cat has significant medical problems, other than hyperthyroidism, he / she may not be suitable for this treatment.
- * Your cat must be reasonably well behaved. Many cats with hyperthyroidism can be a bit tetchy so your cat does not have to be an angel, but we cannot treat cats that will try to attack us as we care for them.
- * **Ideally a blood test is done to check kidney function when the thyroid problem is controlled with medication prior to treatment with radioactive iodine.** Hyperthyroidism boosts the metabolism and can hide problems such as kidney disease. In some cats medical treatment is not possible, either because the drugs do not work very well or because they cause adverse reactions. This will not usually stop us from treating your cat with radioactive iodine.
- * Tablets controlling thyroid hormone levels or the Y/D diet should then be stopped two weeks before your cat's appointment at the Queen Mother Hospital for Animals.
- * Your cat must be up to date with vaccinations for cat flu.

If your cat fulfils all of these criteria, he / she is probably a good candidate for treatment and we look forward to meeting you at your appointment. **Please do not feed your cat from midnight the evening before we are due to see you but fresh drinking water should be available at all times.** If you have any questions regarding the suitability of your cat for treatment, or any concerns about stopping the treatment, please contact your own Vet initially and they can call us for clarification if necessary.

Please ensure that, if you cannot keep your appointment for any reason, you call the Reception desk at the QMHA on 01707 666399 or QMHreception@rvc.ac.uk as soon as possible so that another cat from our waiting list can be treated instead.

How long will your cat have to remain in isolation?

We have recently reduced the amount of time that cats stay with us when they are treated with radioactive iodine. This is because we have monitored the activity of the cats that we have treated, and also the radiation exposure of the vets and nurses that work with them in the hospital, and in consultation with our Radiation Protection Advisor (RPA) have determined that we can safely release them less than 2 weeks after injection. Our current protocol is to admit cats on a Monday, inject the radioactive iodine on the Wednesday and discharge them the following Friday, 9-days after injection.

The current cost of treatment is £2400* inc. VAT.

** prices may be subject to increase*

What to do if you have questions?

If you have questions, you should direct these to your regular (referring) Vet in the first instance. Information will have been sent by us to your Vet about our treatment protocol at the same time that this letter was sent to you. If, however, they are not able to answer your questions, they are welcome to contact our Internal Medicine Service for advice. Until we have actually seen you and your cat, we are not able to talk with you directly and all communication should be through your regular Vet.

Additional information about treatment with radioactive iodine is available for both cat owners: <https://rvc.padlet.org/hsyme1/iodineFAQowners> (QR code at top of first page) and for referring vets <https://rvc.padlet.org/hsyme1/iodineFAQvets>. The answer to most questions about treating cats with radioactive iodine can be found on these sites.