

## **Feline Hyperthyroidism**

**Hyperthyroidism** is the most common hormonal disease of cats. It is rare in dogs. The thyroid gland is located in the neck area and functions to regulate the metabolic rate. In hyperthyroidism, the gland becomes overactive. Most of the symptoms of hyperthyroidism are related to an increase in metabolic rate, stimulated by the overactive thyroid.

### **How Hyperthyroidism Occurs**

Middle aged and older cats are most prone to hyperthyroidism. The cause, in most cases, is a benign tumor of the thyroid gland. Malignant tumors are uncommon. The thyroid tumor produces excessive quantities of the thyroid hormones, T3 and T4. These hormones are secreted into the bloodstream where they act upon all body tissues.

### **What the Disease Does**

The most common signs of hyperthyroidism are weight loss, increased appetite, increased thirst and urination, hyperactivity, vomiting, and diarrhea. Some hyperthyroid cats will act aggressive. Stimulation by the thyroid hormones make the heart beat faster, a condition called tachycardia that is detectable by your veterinarian during a physical exam. Other heart abnormalities that can result include heart murmurs, abnormal heart rhythms, and high blood pressure. Eventually, heart damage and blindness may occur. Hyperthyroidism increases the blood flow to the kidneys, which has a flushing effect that can mask the signs of kidney failure.

### **How to Find Out if Your Cat Has Hyperthyroidism**

Diagnosis begins with a good physical examination. Your veterinarian may be able to feel the enlarged thyroid gland. He will also check for heart problems. A simple blood test can detect high levels of T4. If your cat tests normal, but has symptoms of hyperthyroidism, your veterinarian may perform additional tests. Cats that test positive should have a complete blood panel to check for organ failures that may be hidden by hyperthyroidism.

### **Treatment for Hyperthyroidism**

Before starting treatment for hyperthyroidism, the veterinarian must determine whether the cats kidneys are functioning properly. Once thyroid hormone levels return to normal with treatment, blood flow to the kidneys will be decreased. If significant kidney damage exists, this can trigger life-threatening kidney shutdown. A comprehensive blood panel and urinalysis provides some information about kidney function. Newer, more sensitive tests may also be recommended.

The most conservative option for treatment is daily medication given as a pill or a topical gel. This is not the most effective, and can have side effects. However, it is beneficial for temporary initial treatment. It may also be the safest long-term approach for cats with kidney failure. Side effects of drug treatment include poor appetite, vomiting, lethargy, hair loss and scabs on the face, and damage of the liver or bone marrow. Drug treatment does not cure hyperthyroidism, so medication must be given for life. Regular monitoring of thyroid levels and blood pressure are also required.

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Options that provide a true cure for the condition are surgery and administration of radioactive iodine. Radioactive iodine treatment has the advantage of a very high success rate, while avoiding the risks of anesthesia and surgery. The radioactive material is given as a single injection. It specifically targets the thyroid, destroying a portion of the tissue. The disadvantage is that the treatment is only available at certain specialty facilities. Also, the cat must be hospitalized for up to ten days to allow the radioactive material to be safely eliminated. Occasionally, too much thyroid tissue is destroyed, causing hypothyroidism. This requires lifelong treatment with oral medication.

Surgical removal of thyroid tissue can also be curative. The disadvantage of surgery is that it can be more risky, especially for cats that have heart problems. The parathyroid glands, tiny pieces of tissue located near the thyroid can be damaged during thyroid surgery, resulting in problems with blood calcium control. As with radioactive iodine treatment, surgery can sometimes result in hypothyroidism.

