

Thyroid Level Test/Thyroid Profile Tests/Feline Hyperthyroidism

- Feline hyperthyroidism is a disorder caused by the production of too much thyroid hormone by one of both of the thyroid glands.
 - Diagnosis of feline hyperthyroidism is made by evaluation of clinical signs, physical examination, and one or more thyroid level blood tests.
 - A baseline thyroid level test is a blood test that measures the amount of T_4 (thyroid hormone) in the blood.
 - Thyroid profile tests measure a broader array of hormones to provide a more accurate assessment of thyroid function than the baseline thyroid level test.
 - Feline hyperthyroidism is treated with administration of a daily oral pill, radiation therapy to destroy the thyroid tissue, or surgical removal of thyroid tissue.
- Diarrhea
 - Increased drinking and urination
 - Unkempt haircoat
 - Hyperactivity

Diagnosis of feline hyperthyroidism begins with a medical history and physical examination. In some cases, the veterinarian may be able to feel enlarged thyroid glands on either side of the cat's neck. If hyperthyroidism is suspected, the veterinarian will recommend blood tests to confirm the diagnosis.

Feline hyperthyroidism is a disorder caused by the production of too much thyroid hormone by one of both of the thyroid glands.

What Is Feline Hyperthyroidism?

Feline hyperthyroidism is the most common glandular disorder of cats older than 8 years. The disorder is usually caused by a benign tumor in one or both of the thyroid glands, which are located on either side of the neck. These tumors cause the thyroid glands to over-produce thyroid hormones. In rare cases (1% to 2%), the tumors may be cancerous.

Thyroid hormones are important for regulating metabolism. When a cat has abnormally high levels of circulating thyroid hormones, the cat's metabolic rate increases, leading to secondary problems associated with increased blood pressure. High blood pressure can damage other organs, such as the heart, kidneys, liver, and eyes.

What Are the Signs of Feline Hyperthyroidism?

Cats with hyperthyroidism may show any or all of the following signs:

- Weight loss
- Increased appetite
- Vomiting

What Is a Baseline Thyroid Level Test?

A baseline thyroid level test is a simple blood test to determine the level of thyroid hormone (T_4) in the blood. It is a good screening test for cats that have signs associated with hyperthyroidism. A high total T_4 level confirms the diagnosis of hyperthyroidism.

What Is a Thyroid Profile Test?

Occasionally, cats with signs of hyperthyroidism may have normal or borderline results on the baseline thyroid level test. It's possible for other illnesses to lower the T_4 level. In this case, your veterinarian may recommend a thyroid profile test.

This blood test usually measures a variety of hormones, including T_3 (another thyroid hormone), TSH (thyroid stimulating hormone), and free T_4 (the amount of T_4 that is not bound to protein in the blood). The free T_4 level is not influenced as readily by other illnesses and generally remains high

in cats that are hyperthyroid. Compared with the baseline thyroid level test, the profile may provide a more accurate assessment of thyroid function.

Because this test is more expensive, veterinarians sometimes start with the simple thyroid level test.

Your veterinarian may also suggest a T_3 suppression test. With this test, a baseline blood sample is taken, then the cat is administered a T_3 pill over the course of 3 days, followed by another blood test. The result may help diagnose cases of borderline hyperthyroidism.

How Is Hyperthyroidism Treated?

There are a number of options for treating hyperthyroidism.

A common medical treatment for hyperthyroid cats is administration of an oral pill called *methimazole*. The pill must be given daily—usually twice a day—for the life of the cat. Periodic testing of the baseline T_4 level is recommended, as dosage adjustments are sometimes required for continued management of the condition. Most cats tolerate methimazole very well, but side effects may include vomiting and facial itching.

A second and more permanent solution is treatment with radioactive iodine. When radioactive iodine is administered, it destroys the cat's thyroid tissue. While the procedure is relatively safe, the cat must remain at a special facility during treatment, which may require 7 days or more of hospitalization. Treatment with radioactive iodine usually cures the thyroid condition, so no pills are needed.

Another treatment option is surgical removal of the thyroid glands. If all of the abnormal tissue is removed, this treatment can cure hyperthyroidism. However, there may be anesthesia risks with older cats, and the surgery may result in complications.

What Are the Benefits of Thyroid Testing?

Untreated hyperthyroidism can lead to heart failure, sudden blindness from high blood pressure, chronic vomiting and diarrhea, and death. Thyroid testing can help diagnose feline hyperthyroidism so that proper treatment can be initiated and the effects of the disease may be mitigated.