

# Hyperthyroidism - Cats



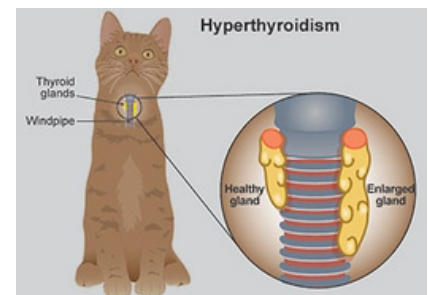
## What is hyperthyroidism?

Hyperthyroidism is a common hormonal disorder of older cats where the thyroid glands become overactive, secreting too much thyroid hormone. These hormones are normally produced in the thyroid glands (located on either side of the throat) but can be produced by 'ectopic' tissue (normally in the chest). The increased hormone production is normally from benign tissue (non-cancerous) although in rare cases a thyroid adenocarcinoma (malignant tumour) is responsible which is more difficult to treat. Thyroid hormones control metabolic rate and have a wide-ranging influence on the body.

## What are the signs of hyperthyroidism?

The symptoms of hyperthyroidism start subtly and become more obvious with progression. Typical signs are:

- Weight loss despite normal to increased food intake
- Increased appetite
- Increased thirst
- Restlessness and irritability
- Increased vocalisation
- Unkempt coat
- Mild to moderate diarrhoea and vomiting may occur.



Occasionally cats show atypical signs of lethargy, weakness and poor appetite but this is less common.

Complications of untreated hyperthyroidism include hypertension (high blood pressure) and heart failure (due to hypertrophic cardiomyopathy) as well as cachexia (severe weight loss), all due to the increased metabolic rate. These complications can be life-threatening and will require additional treatment.

## How do we make a diagnosis?

We may suspect hyperthyroidism on clinical examination, especially if the patient has weight loss, a high heart rate and sometimes a palpable goitre (physical enlargement of the thyroid gland), however other conditions can cause similar signs and blood testing is required for diagnosis.

On blood tests we measure the level of thyroxine (T4) and check for concurrent conditions including kidney disease, liver disease and diabetes which can cause similar signs and may complicate treatment.

Usually diagnosis is straightforward but as other medical conditions can suppress thyroid hormones repeat testing may be required for confirmation in some patients.

Once a diagnosis has been reached blood pressure will usually be measured and further tests may be required if secondary heart disease is suspected.

## Treatment

Treatment focuses on reducing thyroid hormones back to normal levels and can take one of three forms.

**Medication** blocks production of thyroid hormones. It is usually effective within a few weeks, although doses may need to be adjusted. It must be given daily long term; consistency is important to maintain effectiveness. We recheck thyroid hormone levels after 4 weeks on treatment and can make dose adjustments as needed. It is also critical to monitor kidney function at this time as controlling hyperthyroidism reduces blood flow through the kidneys which can unmask chronic kidney disease.

Medication comes in a tablet form (tablets must be given whole not split or crushed) or as a gel which is applied to the inside of the ear (care must be taken to avoid human skin contact). Side-effects can occur including poor appetite, vomiting and lethargy but are uncommon.

An advantage of medical management is the ability to alter treatment if needed where there are concurrent conditions such as kidney disease.

Medication is also used to stabilise the condition prior to radioactive iodine treatment.



**Radioactive iodine (I131)** is considered the gold standard treatment and is curative in most cases. It is administered as a subcutaneous injection under sedation and selectively destroys the overactive thyroid cells.

Cats will need to be hospitalised for 5-7 days after treatment. Check ups including blood tests will be done one, three and six months post treatment.

There are very small numbers of cats that do not fully respond to treatment and small numbers that over-respond will need supplementation of thyroid hormones in the future.

**Diet** can also be used to control thyroid hormones in some patients. Iodine is essential for production of thyroid hormones and there is a prescription diet called Hills y/d that is heavily iodine restricted to prevent excessive thyroid hormone production. To be effective the cat must eat nothing other than this diet including hunting or scavenging so it may be best suited to indoor cats. Palatability may be an issue in some individuals.

## Other considerations

Separate treatment for blood pressure, heart disease or concurrent kidney disease may be required and treatment advice will be tailored to your individual cat and your circumstances. With early treatment and careful monitoring hyperthyroidism is a very rewarding condition to treat and most cats will make a full clinical recovery.