

# Hyperthyroidism

[cats.org.uk](http://cats.org.uk)





**The thyroid is made up of two glands located on either side of the windpipe at the base of your cat's neck. These glands produce thyroxine, a hormone which helps to regulate their metabolic rate; how your cat's body converts food into energy. In some cats, the thyroid becomes overactive and produces excessive amounts of thyroxine. This is called hyperthyroidism and it speeds up the metabolism.**

## **What causes hyperthyroidism?**

Most cats with hyperthyroidism have a benign (non-cancerous) tumour of the thyroid gland. Currently, the underlying reason why cats' thyroid glands undergo this change is unknown. Although it is seen in younger cats occasionally, it mainly affects cats over the age of 10 and can occur in either one or both of the glands.

Much more rarely, a malignant (cancerous) tumour can cause hyperthyroidism.

## **What are the signs?**

The signs seen in hyperthyroidism are due to the metabolic rate speeding up. They may vary from cat to cat but most commonly include:

- increased appetite and/or thirst
- weight loss
- behavioural changes such as hyperactivity, restlessness and being more vocal
- vomiting
- diarrhoea
- poor coat condition
- enlargement of the thyroid gland

- fast heart rate
- less often, cats will become lethargic and have a poor appetite

If left untreated, hyperthyroidism will begin to affect other major organs such as the heart or the liver and will eventually be fatal.

## **Diagnosis**

Your vet may suspect hyperthyroidism based on your cat's history and clinical examination. They may have felt an enlarged thyroid gland.

A diagnosis is made through measuring the level of thyroxine in a blood sample. Occasionally, additional blood tests may be needed. Blood tests can also identify any associated changes or other diseases which may also be present. Blood pressure measurement and pee tests may also be performed.

## **Treatment options**

Hyperthyroidism can be managed with medication, surgery or radiation and in some cases, feeding a veterinary diet.

# Medication

Drugs are available which block the production of thyroxine by the thyroid gland. They come in tablet or liquid form and need to be given every day for life, normally twice daily. Blood samples need to be checked periodically to ensure that thyroid levels are within the normal range. If they are not, the dosage will need to be adjusted.

Advantages of medication:

- relatively cheap for each prescription, and costs are spread over a longer period
- simple
- no surgery or hospitalisation required
- it can be stopped or adjusted

Disadvantages of medication:

- not a permanent cure as medication must be given for life
- some cats can be difficult to medicate
- can produce side effects, including poor appetite, vomiting, skin reactions or liver disease
- periodic blood tests will be required to monitor the condition, and dose adjustments may be needed

- the combination of monitoring and longer-term medication can become costly

## **A possible mask of kidney disease**

Because of changes caused by hyperthyroidism, kidney disease, when present, may not be detectable on blood or pee tests or it can look less severe. This is known as 'masking' of kidney disease. Medical therapy is advised, if possible, before either surgical or radioactive iodine treatment. Once the thyroid disease is stabilised on medication, repeat blood and pee tests can then be used to detect kidney disease, if present. Cats should still have their thyroid disease treated. Ongoing hyperthyroidism will cause kidney disease to worsen more quickly, but it may guide which treatment option is most appropriate, and further monitoring. For more information see [cats.org.uk/kidney-disease](https://cats.org.uk/kidney-disease)

## **Surgery**

This involves removing one or both glands of the thyroid under general anaesthesia.

Advantages of surgery:

- successful surgery is a permanent cure
- the one-off cost may be cheaper in the long term than medication

- a specialist centre is not normally required to perform the procedure
- prolonged hospital stays are not normally required

#### Disadvantages of surgery:

- if one gland is affected and removed, the other side may become affected at a later date, causing symptoms to recur. Both sides may be removed to prevent this
- in cases where a malignant (cancerous) tumour is present in the thyroid it can be difficult to remove completely
- a small percentage of hyperthyroid cats may have thyroid tissue that's out of reach (known as 'ectopic' tissue). They will remain hyperthyroid after removal of the thyroid glands in the neck
- small glands next to the thyroid called parathyroid glands help control calcium levels in the body. These can sometimes be damaged during surgery, causing low levels of calcium to develop which can be life threatening
- surgery requires a general anaesthetic and may not be suitable for cats with other ongoing problems



# Radiation

This is an irreversible treatment. Cats are injected with radioactive iodine which destroys the abnormal thyroid tissue while leaving the normal cells unaffected.

Advantages of radiation:

- no anaesthetic is required
- usually the problem is cured completely with a single treatment, given by an injection under the skin
- it can be a good alternative to surgery if a malignant (cancerous) tumour is present on the thyroid

Disadvantages of radiation:

- cannot be performed routinely at local practices. Specialist centres are required
- requires hospitalisation and complete isolation usually for around one to two weeks. The cat cannot be handled during this time due to the radiation levels in the body
- it is more expensive initially than medication, however may be cheaper in the long term
- may cause levels of thyroxine to be too low after treatment, which occasionally will require medication

## **Diet**

A veterinary diet is available which contains low levels of iodine and may help to normalise thyroid levels in hyperthyroid cats. However, it must be fed as the only source of food, with no access to other food, including prey. The long-term effect of feeding a low-iodine diet to cats are currently uncertain.

Each cat and owner is different. It is important to discuss the different treatment options with your vet to decide what is best for your particular cat.

## **What does the future hold?**

Once your cat is treated they will return to normal fairly quickly in most cases. If the disease has been detected and treated early on, your cat will often live for several more years.

The following vet-approved guides are available as PDF downloads from **[cats.org.uk/information-leaflets](https://cats.org.uk/information-leaflets)**

## **Essential guides**

**Behaviour: Understanding your cat's behaviour** W84009

**Behaviour: Managing your cat's behaviour** W84010

**Bringing your cat home** W84002

**Caring for your cat** W84001

**Caring for your kitten** W84015

**Cats and people** W84014

**Cats living together** W84011

**Elderly cats** W84016

**End-of-life, grief and loss**  
W84007

**Feeding and obesity** W84004

**Feral cats** W84017

**Indoor and outdoor cats** W84012

**Keeping your cat safe** W84005

**Microchipping** W84008

**Moving home** W84003

**Neutering** W84006

**Pregnant cats, birth and care of young kittens** W84018

## **Veterinary guides**

**Arthritis** W83201

**Cat flu** W83216

**Digestive disorders: vomiting and diarrhoea** W83218

**Feline immunodeficiency virus (FIV) and feline leukaemia virus (FeLV)** W83209

**Feline lower urinary tract disease (FLUTD)** W83202

**Fleas and other parasites**  
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**Heart murmurs and heart disease** W83211

**Hyperthyroidism** W83212

**Infectious disease and vaccination** W83217

**Kidney or renal disease** W83206

**Skin disorders** W83204

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**Cats and pregnant women: toxoplasmosis**

**Cats and the law**

**Cats with disabilities**

**Diabetes**

**Feline asthma**

**Feline coronavirus (FCoV) and feline infectious peritonitis (FIP)**

**Feline parvovirus (FPV)**

**Hypertension**

**You and your vet**

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