



# Your cat, hyperthyroidism and you

This booklet has been designed to help answer questions that you may have about hyperthyroidism and how it is treated.

It will provide you with information about the condition as well as some guidance on how best to help your cat during treatment.

With daily medication and careful monitoring your cat will soon be feeling a lot better.

Many of the signs associated with hyperthyroidism will start to disappear and will be kept under control.

This booklet has been divided into easy to use sections that cover different aspects of the disease and its treatment. In the back of the booklet you will also find a treatment planner to help you monitor your cat.



# What is hyperthyroidism?

Cats with hyperthyroidism have a thyroid gland that is producing excessive amounts of thyroid hormones. This causes a dramatic increase in the body's metabolic rate.

# A brief description

Hyperthyroidism occurs when the thyroid gland over-produces thyroid hormones. Your cat's thyroid gland is located in its neck. It is divided into two parts called lobes which lie on either side of the windpipe (trachea).

When a cat has hyperthyroidism either one or both of the thyroid lobes become enlarged (both lobes are affected in 70% of cases). This leads to excessive production of the thyroid hormones T4 (also known as thyroxine) and T3 (also known as triiodothyronine).

#### These hormones:

- Are essential for proper growth of body cells and the development of these cells for specific roles in the body.
- Help regulate the metabolism of protein, fat and carbohydrate by cells.
- Are involved in the regulation of heat production and oxygen consumption and therefore a wide range of metabolic processes.

As a result, an excess of thyroid hormones affects the function of virtually every organ system.

# What causes hyperthyroidism?

The reasons for the change in the thyroid gland are not fully known.

In 98% of cases, the enlargement of the lobe(s) is benign and non-cancerous. In these cases diagnosis and treatment are both straightforward and successful. In the remaining 2% of cases, the enlargement is due to a malignant cancerous growth of the thyroid gland.

Whatever the cause of the enlargement, the result is the same – more thyroid hormones are released.



# Recognising the signs of hyperthyroidism

Hyperthyroidism is more often seen in older cats.

Cats with hyperthyroidism produce thyroid hormones in excess, which leads to a dramatic increase in their metabolic rate.

As the metabolism of each cell increases they require more energy to function. This means that a cat with hyperthyroidism has to eat a lot of food to provide this energy.

As the condition progresses it becomes increasingly difficult for a cat to eat enough to provide the huge amount of energy required, so they start to lose weight. This is why the most common clinical sign in cats with hyperthyroidism is weight loss despite a ravenous appetite.

The increased metabolic rate also causes other changes, including a rapid heart rate.

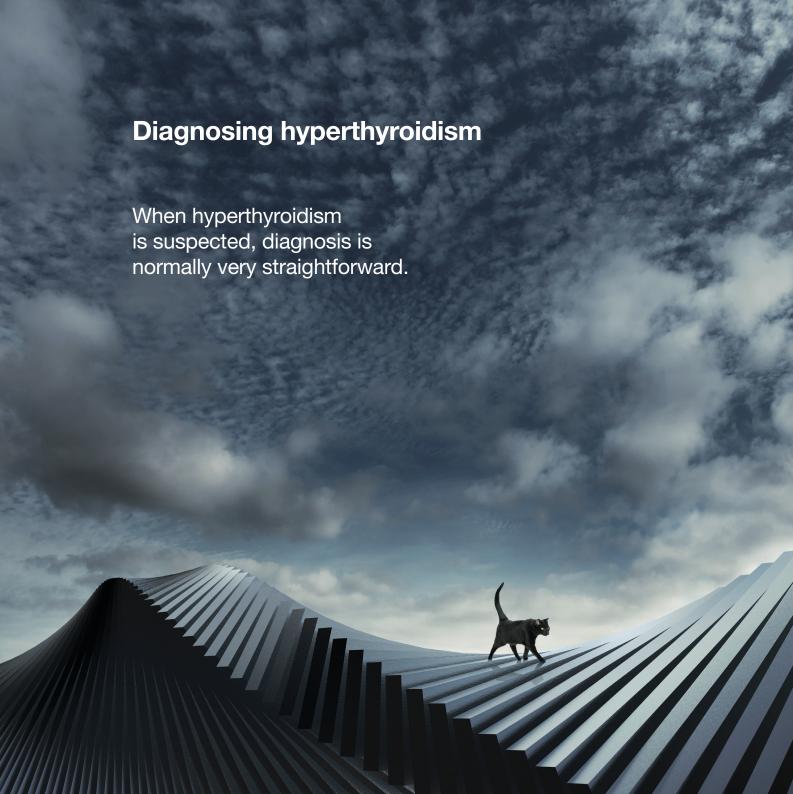


# Other common signs to look for

- Increased fluid intake
- Frequent urination
- Increased restlessness and irritability
- Anxious facial expression
- Occasional vomiting
- Diarrhoea
- An unkempt coat

Not all cats will react to the disease in the same way and your cat may not necessarily display all of these signs. Wherever possible, it is always a good idea to keep a note of the changes you see in your cat's habits, behaviour and appearance.

If you become concerned about your cat's health and welfare, you should consult your veterinary surgeon immediately.



# **Physical examination**

In most cases, your veterinary surgeon will be able to feel the enlarged thyroid lobes in your cat's neck. Occasionally, the thyroid gland cannot be easily felt. This happens when the thyroid tissue is located elsewhere, usually inside your cat's chest.

# **Diagnostic tests**

To confirm the diagnosis your veterinary surgeon will arrange a blood test in order to measure levels of the T4 hormone. Although both the T4 and T3 hormones are produced in excess in a cat suffering from hyperthyroidism, total T4 measurement is the most accurate test available.

Since most cats with hyperthyroidism are older, it is recommended that your cat has other blood tests to assess their organ function and make sure that they do not suffer from any other problems. Kidney disease, although not directly linked to hyperthyroidism, may develop at the same time since both diseases are common in older cats.

Blood tests are important because other conditions might affect the successful treatment of hyperthyroidism.





## The importance of treatment

Hyperthyroidism can be treated very successfully, especially since very few cats develop cancerous growths of the thyroid gland. Treatment will involve bringing the level of thyroid hormones in the blood back to normal, enabling the metabolic rate to return to normal. If left untreated, your cat may develop other serious conditions such as heart complaints and high blood pressure.

## **Stabilisation**

In order to get your cat's thyroid hormone levels back to normal, it is common for your veterinary surgeon to prescribe Felimazole for an initial period of three weeks. This will ensure that your cat's condition becomes more stable.

Your veterinary surgeon will then assess and monitor your cat's response to therapy and discuss the most suitable long-term treatment option.

# **Long-term medical treatment**

If your cat's hyperthyroidism is treated using Felimazole this will not cure the condition. Your cat will need to be treated for the rest of its life.

If your veterinary surgeon recommends long-term use of Felimazole, monitoring of the condition is very important. Your cat will need to have regular blood tests. These tests will ensure that your cat is receiving the correct amount of medication. They will also allow your veterinary surgeon to make sure your cat remains healthy as it gets older.

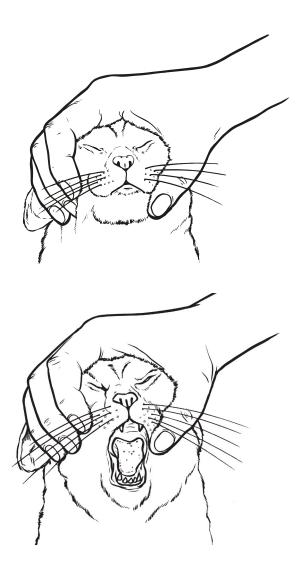


# How to give your cat a Felimazole pill

1. Gently but firmly, grasp your cat's head. If you are right-handed use your left hand; if you are left-handed use your right hand. Place your palm on your cat's head and put your thumb and forefinger on the side ridges of its face just behind its jaw. The cat's cheek-bones provide a convenient handle by which to hold the head firmly without causing the cat any discomfort.

Avoid holding the lower jaw and make sure you don't squeeze the throat. The tips of your thumb and index finger should be positioned at opposite corners of the mouth on the cat's upper gum line.

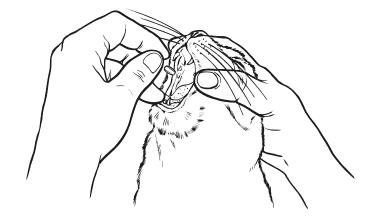
2. Once your cat's head is held in place, gently tilt the head back so that the eyes are facing upward and the nose is pointing towards the ceiling. The mouth should naturally start to open. However, if the cat does not open its mouth when you tilt back the head, you can ease the mouth open by squeezing your thumb and finger together and applying gentle pressure at the corners of the mouth.



3. Place the pill between the thumb and forefingers of your other hand. Use your ring finger or middle finger to open your cat's mouth further by applying pressure on the front of the lower jaw (bottom front teeth). Cats have no strength in the lower jaw in this position and cannot bite. This pressure, together with tilting the cat's head, will cause the mouth to open.

4. After the mouth is fully open, place the pill as far back in the mouth as possible. The "target" is the v-shaped area at the back of the throat where the tongue meets the roof of the mouth. Continue to keep the cat's head fully back. Avoid placing your hand too far into your cat's mouth or it might gag. If this happens your cat may spit the pill back out.

5. Once the pill is positioned in the back of the mouth, it is unlikely that the cat will spit it out. If the pill gets under the tongue or onto the side of the mouth, the cat may spit it back out. The pill enters the stomach much more rapidly if a small amount of water is given immediately after giving the pill. This can be done via a medicine dropper, pipette, or syringe.

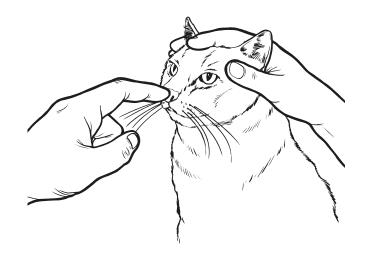


**6.** Close your cat's mouth and hold it closed. Gently and briefly rub your cat's nose, or blow on it. This should stimulate your cat to lick its nose, causing it to swallow. You can also try to stimulate swallowing by rubbing your cat's throat. If none of that works, tilt your cat's head back a little and try again.

7. Let go and watch the cat for a few moments to make sure it doesn't spit out the pill. If it does spit out the pill, throw it away and start again. Also watch for lip-licking motions which usually indicate that the pill has been swallowed. Some cats are good at deception so it is a good idea to open the mouth after a moment to see if the pill has been swallowed.

**8.** Don't let your cat make a hasty exit once it has had the pill. If you allow your cat to just 'take off' you are encouraging it to associate 'flight' with the pill-taking experience. Pet and cuddle it for a few minutes. Try to get your cat to purr.

Always remember to praise your cat and maybe give it a treat or play with a favourite toy. Make the pill-taking just a small part of an otherwise positive experience. By pampering the cat, you'll help it be more prepared and cooperative the next time it is given a pill.





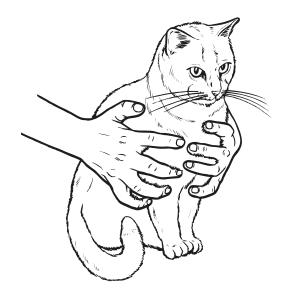
# What to do if you're still having trouble giving your cat a Felimazole pill

In the majority of cases following the above steps will allow you to successfully give Felimazole to your cat. However if you are still finding it difficult to get your cat to take the pill, you may find the following hints helpful:

1. Although Felimazole tablets are best given directly to your cat, you can try hiding the pill in food. However you should watch your cat so that you can be sure that they have actually taken the pill. Some cats will eat the food and spit out the pill. Alternatively, hide the pill in a small amount of food and offer it as a treat before feeding your cat its regular meal.

2. Have a friend hold your cat's front legs and chest to keep it still while you concentrate on administering the pill. If you're pilling the cat yourself, hold the cat so that it can't back away. A corner works well. Or kneel down, turn the cat so that it faces away from you, and cradle it gently between your knees so that you have both hands free.

You can also try wrapping your cat snugly in a blanket or towel so that only the head protrudes. Take care to tuck in all four legs and paws. There are several brands of professional "Cat Sacs" available that you can use. With these you can zip the cat into a bag and leave only its head peeking out.



## **Continuous care**

Your cat will need to be carefully monitored and returned for follow-up appointments on a regular basis.

A series of blood tests will need to be carried out before starting treatment and after 3, 6, 10 and 20 weeks.

Assessing the response to treatment in this way enables the veterinary surgeon to ensure that the dose of Felimazole is appropriate, monitor for possible side-effects to Felimazole therapy, and check for the development of any unrelated complications.

After these initial appointments and once your veterinary surgeon is happy that your cat is stable, you will normally just need to visit every three months for monitoring of your cat's condition. At some stages it may be necessary for your veterinary surgeon to adjust the dose of Felimazole prescribed.

Felimazole will resolve the outward signs of hyperthyroidism whilst your cat is being treated but it does not cure the disease. Even if you notice dramatic physical improvements to your cat's health this does not mean that you should stop treatment.



# Quick reference guide

Answers to some questions you may have about Felimazole



## What is Felimazole and how does it work?

Felimazole contains the anti-thyroid drug thiamazole, which reduces the production of T4 and T3 within the thyroid gland.

## How do I give Felimazole to my cat?

Follow the instructions given by your veterinary surgeon. Felimazole tablets are best given directly to your cat, but the small, sugar-coated tablets can also be hidden whole in the food.

## What should I do if I forget to give a tablet?

Speak to your veterinary surgeon. DO NOT give a double dose next time. If your cat is due to have a monitoring blood test within a couple of days of missing a tablet, MAKE SURE YOU LET YOUR VETERINARY SURGEON KNOW as it could affect the blood results.

## How long will my cat require treatment?

To maintain normal T4 and T3 concentrations in the blood your cat will need to be dosed with Felimazole every day for the rest of their life.

## Will I need to revisit my veterinary surgeon?

Yes. It is important that your cat revisits your veterinary surgeon for assessment and monitoring tests. These are recommended at 3, 6, 10 and 20 weeks after starting treatment and thereafter every 3 months.

## Does Felimazole have any side-effects?

Side-effects most commonly occur within the first 3 months of therapy. They are generally mild and include inappetence, vomiting and lethargy. More serious side-effects are possible so if your cat becomes unwell at any time while on Felimazole therapy, stop treatment and consult your veterinary surgeon as soon as possible.

Felimazole is a prescription only medicine (POM-V) and should only be used under the advice of a qualified veterinary surgeon. It is important that you follow the instructions given by your veterinary surgeon.

### Do:

- Take your cat back to your veterinary surgeon for regular monitoring
- Contact your veterinary surgeon immediately if your cat stops eating or becomes unwell while on Felimazole treatment
- Wash hands with soap and water after using Felimazole or after handling litter used by treated animals
- Wear gloves when handling litter of treated cats if you are a woman of child-bearing age or are pregnant. Wear gloves when handling Felimazole tablets if you are pregnant.

## Don't:

- Change the dose without advice from your veterinary surgeon
- Eat, drink or smoke while handling tablets or used litter
- Crush tablets

Ensure you continue giving your cat the prescribed dose of Felimazole every day. Even if you notice dramatic physical improvements to your cat's health this does not mean that you should stop treatment. Felimazole will resolve outward signs of hyperthyroidism whilst your cat is being treated but it does not cure the disease.

Monitoring is important and regular checks performed by your veterinary surgeon will ensure your cat continues to get the best possible care.



## **Too much jargon? Confused?**

Don't worry. We have listed some of the terms with their definitions below.

## **Anti-thyroid medication**

These are medicines that reduce the production of the hormones T4 and T3 within the thyroid gland.

#### **Benign**

A tumour which is not malignant and will not invade other organs.

#### **Felimazole**

A drug containing the active ingredient thiamazole which is used to treat hyperthyroidism in the cat.

#### **Gland**

A gland is a group of specialised cells in an animal's body that synthesises a substance for release such as hormones.

#### **Hormone**

Hormones act as chemical messengers from one cell (or group of cells) to another.

## Hyperthyroidism

A common condition in older cats that is caused by the over-production of thyroid hormones.

### Inappetence

Lack of appetite.

#### **Malignant**

A tumour which is cancerous and can invade other organs.

#### **Metabolic rate**

The speed at which metabolic processes occur in the cells of the body.

## T3 (triiodothyronine)

A hormone produced by the thyroid gland.

## T4 (thyroxine)

A hormone produced by the thyroid gland.

#### **Thiamazole**

The active ingredient in Felimazole that is known to reduce the production of thyroid hormones.

### **Thyroid gland**

A cat's thyroid gland is located in the neck and divided into two lobes. The lobes lie on either side of the windpipe (trachea). The thyroid gland produces thyroid hormones.

# Helping you help your pet

Now that your cat has been diagnosed with hyperthyroidism it is important to follow a strict treatment and monitoring plan.

The treatment and monitoring plan has been established following an extensive trial programme and is designed to optimise the management of hyperthyroidism, helping to ensure your pet enjoys a good quality of life.

Use the page opposite to help you keep a note of the changes you see in your cat's habits, behaviour and appearance.



Check-up	Date	Notes	Procedure
Day 1 Enter start date of treatment			Tests have established that your cat suffers from hyperthyroidism. Felimazole has been prescribed. Remember to read the package insert before starting treatment and discuss any concerns you may have with your veterinary surgeon immediately.  Start treatment as instructed by your veterinary surgeon. If your cat shows any signs of being unwell, stop treatment and contact your veterinary surgeon immediately.
Week 3			Your veterinary surgeon will want to assess progress by performing haematology, biochemistry and total T4 tests. It is important to check that there are no other underlying conditions affecting the health
Week 6			of your cat.  Adjustments to your cat's Felimazole prescription may need to be made.
Week 10			
Week 20			
Quarterly check-up			
Quarterly check-up			

Felimazole contains thiamazole UK POM-V IE POM
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