

## Hyperthyroidism

Hyperthyroidism is an over-production of thyroid hormone from the thyroid glands in your cat's neck. The hormone, **thyroxine**, helps control the rate at which cells burn energy in the body (**basal metabolic rate**). When there is too much thyroxine, basal metabolic rate increases and the energy use is accelerated.

### Clinical signs:

- Weight loss
- Increased appetite (sometimes having a voracious hunger)
- Vomiting
- Diarrhoea
- Increased thirst and urination
- Hyperactivity
- Poor hair coat
- Aggression

If left untreated, hyperthyroidism may cause hypertension, heart disease, liver disease, kidney disease, retinal detachment within the eyes and so blindness, and death.

### Cause of Disease:

Hyperthyroidism is caused by microscopic tumors within the thyroid gland which over produce thyroxine. In cats 97% of these tumors are benign and do not metastasize. This disease is most common in older cats (usually > 10 years of age).

### Diagnosis:

Since there are many diseases that can cause weight loss in the older cat (e.g. kidney disease, infectious disease diabetes ...), your veterinarian may suggest the following diagnostic tests:

- **A complete blood count and chemistry** will help your veterinarian to determine if there is infection, disease of the kidney, liver, pancreas or metabolic disease present.
- **Urinalysis:** Will allow your veterinarian to assess the kidney's ability to concentrate urine and expel toxins, as well as check for urinary tract infections and diabetes.
- **Thyroid profile:** Measures thyroid levels in the blood.
- **X-rays:** Of the chest and abdomen will help your veterinarian evaluate heart shape and size, lung fields, and any abnormal masses or changes in either area.
- **Electrocardiogram:** Allows your veterinarian to detect any abnormal electrical rhythms or patterns that your pet's heart is producing.

- **Blood Pressure Measurements:** Allows your veterinarian to check if your dog or cat is hypertensive.
- **Ultrasound exam:** Allows your veterinarian to image the internal architecture and any changes in the valves of the heart.

*Your veterinarian may suggest some or all of these diagnostic tests.*

#### **Treatment:**

There are several treatment options with this disease:

- **Medication:** Methimazole is an anti-thyroid compound that blocks the production of the thyroid hormone. This medication is available in oral and gel forms. This treatment needs to be maintained for life and thyroid and organ function would need to be monitored regularly.
- **Hills Y/D:** A new dietary product, Hills Y/D, has recently been launched to control hyperthyroidism. It needs to be fed as the exclusive formula and monitoring is still necessary.
- **Surgical removal of the thyroid gland (*Thyroidectomy*):** This procedure is rarely performed in New Zealand.
- **Radioactive Iodine Therapy:** Thyroxine is composed largely of Iodine molecules. 80% of the Iodine in the body is stored within the thyroid gland. By injecting a radioactive isotope of Iodine in the body, it can selectively destroy the thyroid tissue without affecting other tissues in the body. This procedure is very useful for those cats that are impossible to medicate.

#### **Home care:**

- **Medication**
- **Diet**
- **Recheck:** We will need to check your pet in 30 - 45 days to recheck the thyroid level, and kidney and liver function. Maintenance rechecks at 6 months and 12 months are then necessary, with stable patients then monitored annually.

#### **Please contact us immediately if:**

- ***Vomiting or diarrhoea occur***
- ***Decreased appetite or thirst***
- ***Continued weight loss***
- ***Continued poor hair coat***
- ***Continued depression, weakness or collapse***
- ***Any overall change in your animal's health.***