# **Heathcote Veterinary Clinic**

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Hospital Hours Monday to Friday 9.00am – 7.00pm Saturday from 9.00am Sunday 9.00am – 12.00pm

## **Canine Hypothyroidism**

### What is the thyroid gland and what does it do?

The thyroid gland is located in the neck. The thyroid gland regulates the rate of metabolism. If it is hyperfunctional, metabolism speeds up. If it is less functional than normal, metabolism slows down. The latter is the basis for the clinical signs of hypothyroidism.

#### What causes hypothyroidism?

Hypothyroidism is almost always caused by one of two disease. The first being lymphocytic thyroiditis and is the most common cause of hypothyroidism and is thought to be an immune-mediated disease The second being idiopathic thyroid gland atrophy.

#### What are the clinical signs?

The clinical signs of hypothyroidism are not specific and may resemble many other diseases. Although the onset of clinical signs is variable, hypothyroidism most commonly develops in middle-aged, medium to large breed dogs between the ages of 4 to 10 years.

These signs include:

- Weight gain without an increase in appetite this is the most common sign of hypothyroidism
- Lethargy: Lack of desire to exercise or play, frequent napping
- Cold intolerance (dog gets cold easily)
- Coat changes : Dry hair coat with excessive shedding, very thin hair coat to near baldness
- Skin changes: Increased pigmentation, increased susceptibility to skin and ear infections

#### How is it diagnosed?

The most common method is to test for the T4 level. This is a measurement of the main thyroid hormone in a blood sample. If it is below normal and the correct clinical signs are present, the test is diagnostic.

However, testing for the T4 level can be misleading because some dogs that are not hypothyroid may have subnormal levels. If hypothyroidism is suspected but the T4 level is normal, confirmatory tests can be performed.

#### Can hypothyroidism be treated?

The treatment of hypothyroidism, regardless of its cause, is through thyroid hormone supplementation. Usually, if the diagnosis is correct, thyroid supplementation improves the clinical signs associated with the disease within 4-6 weeks. During the first week of therapy, the first improvements are usually seen (an increased mental alertness, greater activity, improved muscle strength and improved appetite). The improvements in the skin take several months to return to normal. All the clinical signs of hypothyroidism are reversible, once treatment is started.

If the patient responds to therapy, once-daily therapy can be tried. However, some patients require continued therapy twice daily. The dose of thyroid hormone supplementation should be checked regularly with blood tests every 6-12 months. This drug must be given for the rest of the dog's life.

#### What happens if the medication is overdosed?

If the medication is overdosed, signs of hyperthyroidism can be seen. These include hyperactivity, lack of sleep, rapid weight loss and an increase in water consumption. If any of these occur, notify us and a proper adjustment can be made.

#### What is the prognosis for hypothyroidism?

Prognosis for return to normal function following treatment is excellent in most adult hypothyroid dogs. The life expectancy is normal.