

# Canine Hypothyroidism

## *What is hypothyroidism?*

Hypothyroidism results from a deficiency of thyroid hormone due to inflammation or progressive failure of the thyroid gland in the neck. Under normal conditions, the thyroid gland produces thyroid hormone which controls the rate of metabolism. If it is hyperfunctional, metabolism speeds up. If it is less functional than normal, metabolism slows down. This is hypothyroidism.

## *What are the clinical signs?*

Most dogs have one or several of the following common signs:

- Weight gain
- Lethargy and weakness
- Cold intolerance (gets cold easily)
- Dry hair coat with excessive shedding
- Very thin hair coat to near baldness
- Increased pigmentation in the skin
- High blood cholesterol
- Fertility problems
- Increased susceptibility to skin and ear infections

## *How is it diagnosed?*

The most common test is for the T4 level. This is a measurement of the main thyroid hormone in a blood sample. If it is below normal and clinical signs are present, the test is meaningful. However, testing for the T4 level can be misleading because dogs that are not hypothyroid may have subnormal levels due to another disease that is present or the influence of certain drugs. In many cases, a specialized test called a T4 by equilibrium dialysis may need to be done.

## *How is hypothyroidism treated?*

Treatment usually involves twice daily oral medication with synthetic thyroid hormone supplements. This drug acts like a natural thyroid hormone and will reverse the clinical signs of hypothyroidism. Treatment consists of two doses per day, *and must be given for the rest of your dog's life*. Blood testing will be required 1-2 months after beginning treatment to confirm the correct level of medication. This must be scheduled 4-6 hours after the morning pill. After that dogs will most likely need an exam and T4 blood test every 6-12 months.

## *How soon will my dog respond to the medication?*

Attitude, activity, and appetite may improve within 1-2 weeks. Skin, reproductive, and neurologic problems require more time, but most resolve within 6-8 weeks. **Please notify us if nervousness, aggressive behavior, increased drinking and/or increased urination are observed.** These may be signs of excessive thyroid hormone. We may adjust the dose of thyroid hormone or change to a different type of therapy if these signs develop.