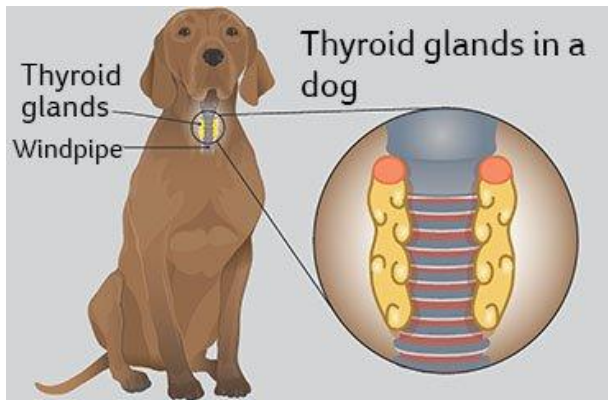


# Hypothyroidism

One of the most common hormonal diseases in dogs



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## What is hypothyroidism?

Hypothyroidism is a condition of inadequate thyroid hormone levels that leads to a reduction in a dog's metabolic state. Lymphocytic thyroiditis is the most common cause of hypothyroidism and is thought to be an immune-mediated disease, meaning that the immune system decides that the thyroid is abnormal or foreign and attacks it. It is unclear why this occurs; however, it is a heritable trait, so genetics plays a role. In idiopathic thyroid gland atrophy, normal thyroid tissue is replaced by fat tissue. This condition is also poorly understood.

Since virtually every cell in the body can be affected by reduced levels of thyroid hormone, dogs affected can develop symptoms in multiple body systems.

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## Signs + Symptoms (most common):

- weight gain without an increase in appetite
- lethargy (tiredness) and lack of desire to exercise
- cold intolerance (gets cold easily)
- dry, dull hair with excessive shedding
- very thin to nearly bald hair coat
- increased dark pigmentation in the skin

- increased susceptibility and occurrence of skin and ear infections
- failure to re-grow hair after clipping or shaving
- high blood cholesterol
- slow heart rate

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### Signs + Symptoms (uncommon):

- thickening of the facial skin so they have a “tragic” facial expression
- abnormal function of nerves causing non-painful lameness, dragging of feet, lack of coordination, and a head tilt
- loss of libido and infertility in intact males
- lack of heat periods, infertility, and abortion (miscarriage) in females
- fat deposits in the corneas of the eyes
- keratoconjunctivitis sicca (KCS) or dry eye due to lack of proper tear production

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### Diagnosis

The most common screening test for thyroid disease is a total thyroxine (TT4) level. This is a measurement of the main thyroid hormone in a blood sample. A low level of TT4, along with the presence of clinical signs, is suggestive of hypothyroidism. Definitive diagnosis is made by performing a free T4 by equilibrium dialysis (free T4 by ED) or a thyroid panel that assesses the levels of

multiple forms of thyroxine. If this test is low, then your dog has hypothyroidism. Some pets will have a low TT4 and normal free T4 by ED.

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### Treatment

Hypothyroidism is treatable but not curable. It is treated with oral administration of thyroid replacement hormone. This drug must be given for the rest of the dog's life. The most recommended treatment is oral synthetic thyroid hormone replacement called levothyroxine (brand names Thyro-Tabs® Canine, Synthroid®).

Since the thyroid gland is such an important gland, it is extremely important that hypothyroidism be properly controlled. If you have any questions about this disease, or if you are concerned about your pet's response to treatment, contact your veterinarian.

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