

CUSHINGS DISEASE

HYPERADRENOCORTISISM

Hyperadrenocorticism (HAC)

Cushing's disease, also known as hyperadrenocorticism (HAC), is a condition in which the adrenal glands (located near the kidneys) produce too much steroid hormone (cortisol). It is a complicated disease that often acts more like a syndrome.

The over production of cortisol causes symptoms such as hair loss (usually over the body). Pot-bellied appearance, increased appetite, and increased urination and drinking called polyuria and polydipsia (Pu/Pd). Thin skin and bruising are also common. Because cortisol affects the function of many organs in the body, the signs of HAC are varied. Dogs that are given prednisone or similar drugs can develop signs that look like HAC (called iatrogenic Cushing's). HAC also makes concurrent disease (like diabetes) more difficult to manage.

CLINICAL SIGNS

OF CUSHING'S:

- Excessive Thirst
- Excessive Urination
- Excessive Hunger
- Symmetrical Hair Loss
- Pot-bellied Abdomen
- Calcium Deposits in Skin
- Poor Wound Healing
- Muscle Weakness
- Hyperpigmentation of Skin
 - Panting
- Thin Paper like Skin

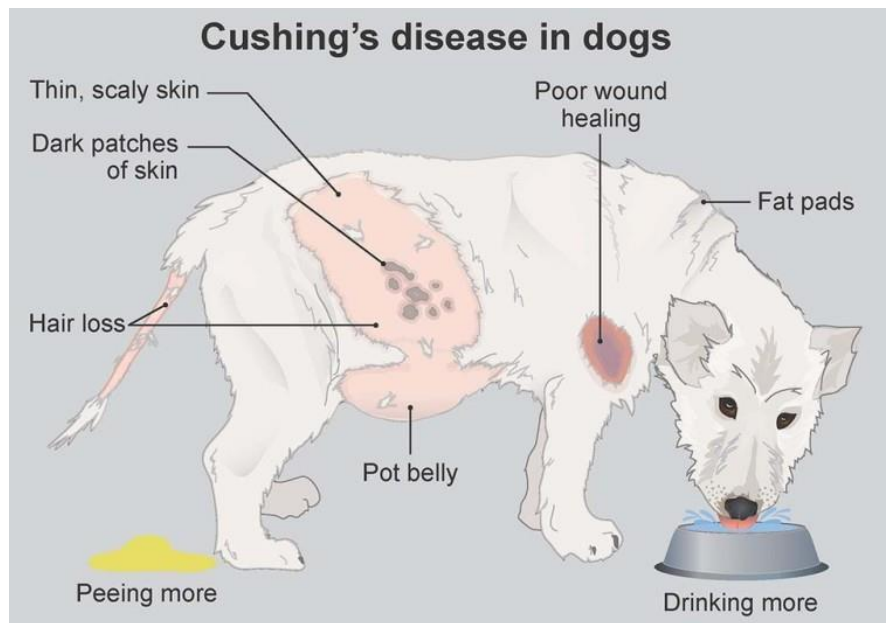
TYPES OF CUSHING'S:

🐾 ADRENAL DEPENDENT:

due to tumor on the adrenal gland

🐾 PITUITARY DEPENDENT:

due to increased production of adrenocorticotropic hormone (ACTH) by the pituitary gland



Types of HAC

There are two forms of HAC. Pituitary dependent (PDH) or adrenal (ADH). See side bar for more information.

Diagnosing

Because HAC shares many symptoms with common diseases which must first be ruled out, it cannot be diagnosed with a single test. The first step is baseline blood work, which helps rule out some of the other disease processes that share clinical signs. If supportive clinical data has been found, tests that utilize byproducts in the urine or manipulate cortisol in the body will be performed to make a presumptive diagnosis. Abdominal ultrasound is often performed to determine if there is an adrenal mass and assists in differentiating ADH and PDH.

Treatment

Untreated HAC results in uncontrolled secondary effects that are life threatening. If an adrenal tumor is present, surgical resection may be attempted, but surgery carries significant risks. Therefore, medical management is often recommended. Your veterinarian will discuss which treatment option will work best for your pet. The most common medications are Vetoryl (trilostane) or Lysodren (mitotane) and are given 1-2 times daily with a meal. Once on medication, monitoring for adverse effects is very important and requires you, as the pet's caretaker, to be vigilant and involved in treatment. Vomiting, diarrhea, refusing food or water, and/or muscle tremors are signs that require a call to your veterinarian. In most cases, response to treatment may take several weeks and the dog's overall health improves over several months.

Monitoring

The best way to monitor your pet's HAC is by testing cortisol levels. Cortisol levels may be tested right before the next dose of medicine, 4-6 hours after receiving the morning dose or/and 1 hour after an ACTH stimulation injection. A combination of 2-3 of these times may be used to best monitor the pet's response to therapy. Monitoring tests should be performed 10-14 days after a medicine dose is changed, any time clinical signs of HAC return, and/or every 4-6 months if well controlled.

Prognosis

Pets with HAC rarely succumb to the disease itself but eventually die from secondary effects. If HAC is due to an adrenal tumor and the tumor is able to be surgically removed the prognosis is very good. Medical management of either ADH or PDH is good to guarded. Management requires a significant financial commitment along with dedicated administration of medications as well as a time commitment for regular testing. But your pet's longevity and quality of life will be enhanced with treatment.

ACTH stimulates the adrenal gland to produce cortisol. Cortisol is the body's stress hormone. It aids in the natural physiological responses to stress.

Cushing's Disease cannot be cured but it can be managed

Adverse Side Effects of Medication:

- Decreased Appetite
 - Vomiting
 - Diarrhea
 - Lethargy

There is currently no accurate method for at-home monitoring for Cushing's treatment.

Watching for worsening of clinical signs and timely cortisol level testing in hospital are best.