What Is It?

Addison’s disease is an endocrine disorder that results from impaired function of the adrenal glands. Adrenal glands are small, lima bean-shaped glands that sit above each of the kidneys. The adrenal glands are composed of an inner and outer ring; each of these areas oversees production of specific, critical hormones. The two products of the adrenal glands are cortisol, a hormone linked to stress, and aldosterone, a hormone that regulates minerals in the body such as sodium and potassium. When the regulation of adrenal gland hormone production becomes dysfunctional, the pet can suffer severe consequences including changes in sodium and potassium levels in the body. Sodium and potassium are especially critical for a pet to manage its internal fluid balance - fluctuations can lead to severe dehydration. Most pets with Addison’s disease suffer from an auto-immune disorder wherein their own body attacks the layers of the adrenal glands resulting in hormone imbalance. Less commonly, but still reported, a pet can suffer from Addison’s with over-treatment for the opposite disease (hyperadrenocorticism otherwise known as Cushing’s disease), trauma, various infectious disease, disease of the pituitary gland located in the brain, or unknown causes (idiopathic). Addison’s can affect all breeds, and generally is seen among young to middle aged dogs. Some breeds are over-represented: Labrador Retrievers, Great Danes, Portuguese Water Dogs and Standard Poodles may be at higher risk of developing Addison’s. Addison’s can occur in cats, but is extremely rare.

Diagnosis

A presumptive diagnosis of Addison’s for most dogs is based on repetitive clinical symptoms reported from the owner, with basic bloodwork and urine test findings that support the diagnosis. An ACTH stimulation test, which tests the function of the adrenal glands, may be recommended to confirm the disease. Atypical Addison’s, idiopathic, and other rare causes may not be as easily diagnosed. Sometimes advanced diagnostics such as a CT, MRI, x-rays ultrasounds, and other testing may be recommended depending on the status of the pet. However, more commonly the disease is diagnosed by ACTH stimulation testing, treated and monitored with basic bloodwork.

Treatment and Management

After a definitive diagnosis has been made, therapy typically resolves the symptoms and stabilizes the disease if instituted quickly. Over the long term, follow up testing and annual bloodwork will be necessary to monitor values. One of the main drugs utilized is Percorten, an FDA approved injectable medication for the management of Addison’s disease. Percorten works to replace the deficient mineralocorticoid component, Aldosterone. The injections are typically needed every 3-4 weeks, based on weight, and are amenable to at home instruction for the long term. The deficient glucocorticoid is replaced, typically, with a very low dose of an oral glucocorticoid, such as prednisone. Other options, such as all oral replacement, are available if the typical injectable protocol does not fit your pet. Atypical Addison’s, which is characterized by only a deficiency in corticosteroids, requires only oral steroid replacement.
**Hypoadrenocorticism (Addison’s) in Dogs**

A Brief Guide • Part of the Educational Pet Disease Series from Lap of Love

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**Management Tips**

**Try to:**

- Be consistent with medicating
- Track appetite, urination, drinking, weight, vomiting, diarrhea, energy, etc.
- Limit stress (kids, noise)
- Keep up with preventative care
- Address concerns ASAP
- Never adjust medication doses unless previously discussed with your vet
- Avoid snacks in between meals
- Assign one person to medications
- Refill medications ahead of time
- Use pet sitters with medical experience or board at a hospital
- Be consistent with follow-up and monitoring bloodwork as advised
- Prepare for stressful situations and discuss giving more oral steroids the day of and before the stressful event.

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**Prognosis**

Addison’s is a life long health concern that requires long-term management. However, if detected early, and not in a state of Addisonian crisis, the prognosis with treatment for Addison’s is great! The follow up can take time, dedication, and finances, as the medications are not always cheap, but they work well to provide a good, long quality of life for most dogs. Dogs presenting in an Addisonian crisis at the time of diagnosis have a good prognosis if they can be stabilized, and no other severe concurrent diseases are present. Many pets can still undergo anesthesia and live a relatively normal life. Relapses can occur in times of extreme stress wherein even the medication cannot compensate enough, however, if oral steroids can be given at home to counter balance these events, most pets do well. Consult your veterinarian, and, if warranted, a veterinary internal medicine specialist for an individualized plan to best treat your dog.

Before your pet’s condition becomes unmanageable or they are losing quality of life, it is important to begin end-of-life care discussions. Learn about pet hospice care and/or euthanasia services in your area so you are prepared.