

### **Addison's disease (Hypoadrenocorticism)**

Addison's disease is also known as hypoadrenocorticism. It is an insufficient production of adrenal hormones by the adrenal gland. Since these hormones are essential for life, this is an extremely serious disease and it must be treated as such.

Adrenal insufficiency can be primary or secondary. Primary adrenocorticism affects salt/potassium balance in the body and glucocorticoid as well. Secondary adrenocorticism usually only affects the glucocorticoids. It is not known why primary adrenocorticism occurs but it may be an immune mediated process. Secondary adrenocorticism probably occurs most often when prednisone or other cortisone being administered for medical reasons are suddenly withdrawn. It can occur as a result of pituitary cancer or some other process that interferes with production of hormones that stimulate the adrenal glands.

Most dogs with Addison's disease initially have gastrointestinal disturbances like vomiting. Lethargy it also a common early sign. Poor appetite can occur as well. These are pretty vague signs and it is extremely easy to miss this disease. More severe signs occur when a dog with hypoadrenocorticism is stressed or when potassium levels get high enough to interfere with heart function. Dogs with this problem will sometimes suffer severe shock symptoms when stressed, which can lead to a rapid death. When potassium levels get high heart arrythmias occur or even heart stoppage which also is fatal. In some cases, especially secondary Addison's disease, there are no detectable electrolyte changes.

This disease can be picked up by changes in the ratio between sodium or potassium by accident at times. When this happens it is still extremely important to treat for it. It is confirmed by an ACTH response test -- administration of this hormone should stimulate production of adrenal hormones. If this does not occur then hypoadrenocorticism is present. In cases in which the electrolyte levels are normal this is the only test for the problem and it will be missed unless it is looked for specifically. At times this disease can be hard to differentiate from renal failure because the symptoms and even the bloodwork can be similar ---- so the ACTH response test may be necessary to differentiate them.

Treatment for this disease is usually done by oral administration of fludrocortisone acetate (Flurinaf), salting the food, and administration of corticosteroids like prednisone. In a crisis situation this disorder must be treated more aggressively with intravenous fluids, IV glucocorticoids and correction of acid/base balances.

You have to pay close attention to a dog with this problem. Don't ignore any changes in appetite, GI disturbances or anything else that makes you think your dog is ill. If you work with your vet and are careful about following his or her directions this disease has a good prognosis when it is discovered before a crisis occurs.