

# Cushing's Disease (Hyperadrenocorticism)

## Dermatology Service



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### Locations

#### **Auburn Hills**

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(248) 371-3713

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### **What causes Cushing's Disease?**

Cushing's Disease is caused by excessive cortisone production by the adrenal gland or due to a pituitary (brain) problem. It can also occur due to excessive cortisone (steroid) medication being used/given.

### **Symptoms**

Signs include hair loss, thin skin, muscle wasting and weakness, excessive water intake and urination, panting, pot-belly, recurrent or resistant infections, poor hair coat, poor hair re-growth, elevated liver enzymes, and/or dry scaling skin. (Please note that all signs MAY NOT be present.) Dogs with Cushing's Disease are at risk for blood clots, kidney damage, high blood pressure and diabetes.

### **Diagnosis**

The following screening tests may be administered to make a diagnosis of Cushing's Disease:

- CBC
- Chemistry profile
- Urinalysis
- Urine culture
- Blood pressure

In order to properly diagnose and treat Cushing's disease, a number of specific blood tests must be done. These tests (and information gained) are:

1. Low dose dexamethasone suppression test (3 blood samples 4 and 8 hours apart) – this test is the best to confirm the disease and is the first test we do. If this test is positive, your dog has Cushing's disease; if it is negative then there is still a 5-10% change that your pet has Cushing's disease.
2. ACTH stimulation test (2 blood samples 1 hour apart) – this test is done to evaluate if too much steroid medication has been used, or to start (and monitor) treatment of non-surgical cases of Cushing's.
3. Urine cortisol/creatinine ratio – may help in diagnosing or monitoring the more difficult Cushing's case. Is used in conjunction with test #2.
4. ACTH concentrations – this test is performed to differentiate pituitary vs. adrenal forms of Cushing's.

### **Treatment**

Lifelong medication or surgery may be recommended, depending on whether the problem is the adrenal gland or the pituitary.

If Cushing's is treated with medication, the treatment is life long with periodic monitoring. The medication (lysodren) will shrink the adrenal gland, but because the problem is in the brain making the gland too large, the adrenal gland tries to grow back. Initially, the medication is given for 7 days. An ACTH stimulation test is then done to see if more medication needs to be given daily. If not, maintenance medication (twice weekly) can now be used. About 50% of the dogs will be able to be on maintenance treatment at this point and will not need to be checked again for 30 days. The other 50% will usually take another 4-10 days of treatment and then be rechecked with another ACTH stimulation test. After the 30 day check (ACTH stimulation test), your pet will usually need to be checked every 2-4 months for life.



# Cushing's Disease continued...

Lysodren used in the proper dosage is very effective in treating Cushing's disease. Like insulin in a diabetic, however, the wrong dose can have side effects ranging from mild to severe/serious. If monitored frequently with blood tests, it is very unusual to see any adverse reactions. Blood tests need to be done frequently while on lysodren to detect early abnormalities before clinical signs become apparent. The signs in increasing severity and order you would notice are:

Decreased appetite, picky eating, eating more slowly (leaving food, taking longer to eat)

Gastrointestinal upsets – vomiting or diarrhea

Weakness, lethargy and/or depression

If any of these symptoms are noticed, please stop the lysodren and call the office. With proper and careful regulation the incidence of these side effects are typically <1%.

Your dog can have a normal and happy life with proper diagnosis and monitoring.



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