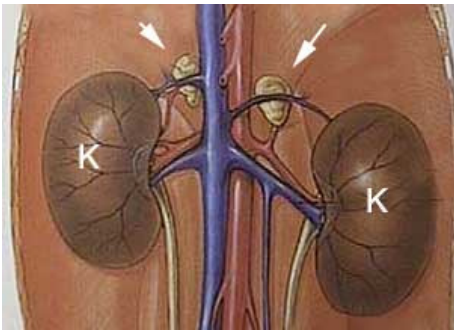


# CUSHING'S DISEASE

Hyperadrenocorticism, also called Cushing's disease, is a disorder of the adrenal glands (located just above the kidneys) in which excessive adrenal hormones are produced. Cushing's disease can be caused adrenal gland tumors (15% of the time), or pituitary gland tumors (85% of the time). Adrenal gland tumors produce excessive hormones independent of the body's normal control mechanisms. Pituitary gland tumors produce excessive ACTH, a hormone which then stimulates the adrenal gland to produce adrenal hormones.

Cushing's disease is a slowly progressing disease and the early signs are often not noticed. These include increased drinking, increased urination, increased appetite,

panting, high blood pressure, hair loss (often symmetrically on both sides of the body), enlargement of the abdomen, thinning of the skin, calcified lumps in the skin, susceptibility to skin and ear infections and diabetes, weakening of the heart and skeletal muscles, nervous system disease and other symptoms



The arrows point to the adrenal glands, right above the kidneys

Clinical signs, such as those mentioned above, coupled with changes on an animal's chemistry screen, often raise suspicion for Cushing's disease. To confirm Cushing's disease, a test known as a Low Dose Dexamethasone Test is done. A baseline blood sample is drawn in the morning and an injection of dexamethasone is given in the morning as well. Follow-up blood tests are then drawn at four hours and eight hours after the initial dose of dexamethasone. In a normal dog, the dexamethasone should suppress cortisol levels in the bloodstream. In Cushing's Disease this does not occur. Another test, known as an ACTH Stimulation Test, can also be performed. An artificial ACTH like hormone is given and the response by the adrenal gland is measured. Dogs with Cushing's disease will produce excessively high cortisol levels in response to ACTH.

X-rays and ultrasounds can be used to determine if adrenal gland or pituitary gland tumors are present. Adrenal gland tumors can usually be removed while pituitary gland tumors are not usually removed. Some animals respond to medical treatment, while others need both medical and surgical treatment. Unfortunately, some patients grow worse despite treatment.