

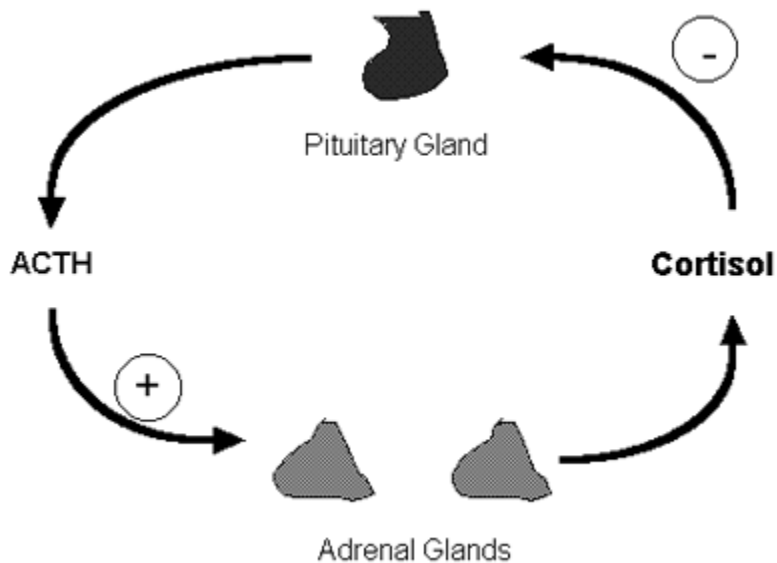


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Hypoadrenocorticism (Addison's Disease)

Hypoadrenocorticism is a disease characterized by low adrenal gland output. Most commonly, this is associated with destruction of the adrenal gland, although occasionally it is related to pituitary gland abnormalities. The diagram below illustrates the normal mechanisms present for adrenal gland stimulation. The pituitary hormone ACTH is released from the brain and stimulates the adrenal glands to produce cortisol and other hormones. The increased cortisol level from the adrenal gland is detected by the pituitary gland, which then decreases ACTH output until the cortisol level again falls below normal.

Normal Pituitary/Adrenal Gland Function



Hypoadrenocorticism occurs either because the adrenal glands have been damaged and can no longer produce cortisol, or because the pituitary gland is no longer producing ACTH. The disease is most common in young female dogs, but can be seen in male dogs and occasionally is diagnosed in older pets. This disease is very rare in cats.

Signs of hypoadrenocorticism can be subtle and similar to many other diseases. Lethargy, chronic vomiting, diarrhea, and intermittent weakness are commonly seen. In its most serious form, the affected animal can collapse. If Addison's disease is suspected, the diagnosis is easily confirmed using the ACTH

stimulation test. A blood sample is taken before and after administration of synthetic ACTH, and cortisol levels are measured. If the adrenal gland is atrophied, it cannot respond to the ACTH and the cortisol level will not change. Some steroids can interfere with cortisone measurement and individuals must be kept off steroids prior to testing.

Treatment consists of replacing the deficient adrenal hormones. This can include daily medications or long-lasting injections. Either treatment is highly effective, although treatment can be costly in large dogs.

Periodic rechecks are required to "fine-tune" medication, but long-term prognosis is excellent.