

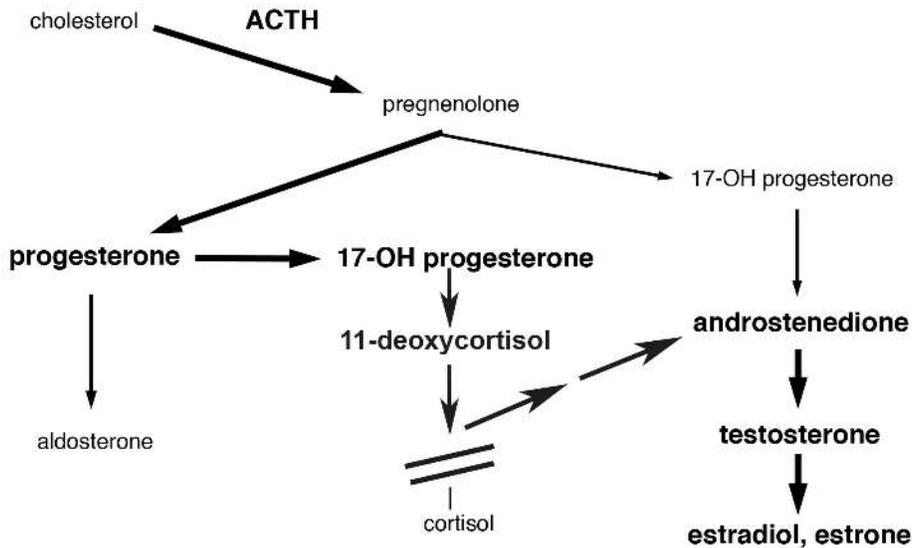
Overview of Adreno-cortical Fatigue and Resulting Hyperestrogenism

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When adrenal glands become exhausted by chronic irritation, cortisol production eventually fails. Precursor hormones such as progesterone accumulate and “spill over” into the adjacent hormone pathway. This results in elevated levels of adrenal estrogen. In other words, when one path is blocked, *hormone activity is rerouted down another pathway.*

A good analogy would be boating down a river. If a dam were built across the river, the water would back up and you would have to steer your boat down a different branch of the river to continue on your trip. This condition in dogs may be diagnosed by a variety of names, including adrenal exhaustion, hyperestrogensim, adrenal hyperplasia-like syndrome, atypical Cushing’s disease (if sex hormones are assayed) or atypical Addison’s disease (if cortisol and aldosterone are assayed.)

Steroid biosynthesis during adreno-cortical exhaustion



Signs/symptoms of elevated adrenal estrogen closely resemble those of excess cortisol including, fatigue, confusion, depression, incontinence, irritability, seizures, and darkening of the skin. Elevated estrogen raises liver/pancreas enzymes (serum amylase/alkaline phosphatase), cholesterol, and triglycerides. Elevated estrogen also results in kidney degeneration, bone marrow and immunoglobulin suppression (anemia, cancer), increased histamine activity (allergies/itching), and thyroid binding.

Elevated levels of hormone precursors, such as progesterones and androgens cause impaired glucose tolerance (high blood glucose levels), obesity, increased body core temperature (heat intolerance/panting), increased hunger, aggression, thick coats, acne (small flesh-colored bumps), and bald patches.

Severely depleted cortisol results in loss of appetite, vomiting, abdominal pain, diarrhea, weakness, organ failure, and death.

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