

Decreased aldosterone leads to hypotension, or a decrease in blood pressure. Aldosterone works on Na^+/K^+ pumps to resorb Na^+ , which is followed by water, leading to increased blood volume, and subsequently, pressure.

Hyperkalemia

[Hiker-banana](#)

As aldosterone works on Na^+/K^+ pumps in the distal tubule and collecting ducts, it works to maintain homeostasis of K^+ , Na^+ , and fluids. In this disease, a lack of aldosterone means that excess K^+ is not secreted into the tubular lumen. This can lead to hyperkalemia in patients.

Acidosis

[Acidic-lemon](#)

Metabolic acidosis occurs because Na^+ resorption in the distal tubule is linked with H^+ secretion under the influence of aldosterone. Low levels of aldosterone in the renal distal tubule leads to sodium wasting in the urine, and more importantly, excess H^+ retention in the serum. This leads to acidosis.

Addisonian Crisis

[Add-sun with Crying-crisis](#)

Severe adrenal insufficiency leads to Addisonian crisis, which is a potentially life-threatening medical emergency which needs intervention. Patients can display coma, fever, convulsions, hypoglycemia, lethargy, and eventually death.

Diagnosis

ACTH (Cosyntropin) Stimulation Test

[AC Stimulated](#)

Diagnosis of Addison disease is supported with the ACTH stimulation test. A synthetic ACTH analog known as cosyntropin is administered either intramuscularly or intravenously. Serum cortisol levels are measured before and after this. If cortisol levels remain low after the injection, patients can be diagnosed with the disease.

Treatment

Exogenous Cortisol

[Court-of-Sol judge coming in from outside](#)

Treatment for this disease is to replace the missing cortisol to mimic normal physiologic levels.