

## Fludrocortisone

Fludrocortisone is an aldosterone analog indicated for Addison's disease (primary adrenal insufficiency) and congenital adrenal hyperplasia. The side effects of long-term use include Cushing's syndrome, edema, congestive heart failure exacerbation, and hyperpigmentation.



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### Mechanism of Action

#### Aldosterone Analog

[Aldo-stereo On-a-log](#)

Fludrocortisone is an analog of endogenous aldosterone. Aldosterone acts primarily in the renal collecting ducts to stimulate reabsorption of  $\text{Na}^+$  and secretion of  $\text{K}^+$  and  $\text{H}^+$ . This will lead to an increase in blood pressure.

### Indications

#### Addison's Disease (Primary Adrenal Insufficiency)

[Add-sun](#)

Fludrocortisone is used to treat Addison's disease (primary adrenal insufficiency). In Addison's disease, the adrenal glands do not produce enough cortisol and aldosterone; thus, replacement therapy with fludrocortisone is indicated.

#### Congenital Adrenal Hyperplasia

[Present-from-birth Adrenal-gland and Hiker-plates](#)

Fludrocortisone is used to treat congenital adrenal hyperplasia (CAH). This disease describes a group of autosomal recessive disorders which involve the impairment of cortisol synthesis. Therefore, cortisol and aldosterone will be decreased and replacement is indicated.

### Side Effects

#### Cushing Syndrome

[Cushion](#)

Long term use of fludrocortisone may lead to Cushing's syndrome which is a disorder caused by hypercortisolism. This is because fludrocortisone also has glucocorticoid effects that are 10-15x more potent than hydrocortisone. The symptoms of Cushing's syndrome include weight gain, increased fatty deposits, moon-shaped facies, and fatigue.

#### Edema

[Edamame](#)

Fludrocortisone can cause the retention of high amounts of sodium which leads to an increase in water retention. This can then lead to edema.

### **Congestive Heart Failure Exacerbation**

#### [Dead Heart](#)

Fludrocortisone can worsen the state of congestive heart failure in patients due to the action of aldosterone which increases blood pressure and retains fluid.

### **Hyperpigmentation**

#### [Hiker-pig with Hyperpigmentation](#)

Fludrocortisone may cause hyperpigmentation of the skin and nails.