

# **HYPERALDOSTERONISM: THE FACTS YOU NEED TO KNOW**

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Hyperaldosteronism is a disease caused by an excess production of the normal adrenal hormone, aldosterone. This hormone is responsible for sodium and potassium balance, which then directly controls water balance to maintain appropriate blood pressure and blood volume. People with a deficiency of aldosterone, especially found in association with cortisol deficiency in Addison's disease, have low blood volume and therefore low blood pressure, low sodium and high potassium. Just the opposite is seen in hyperaldosteronism.

Hyperaldosteronism causes high blood pressure and a low serum potassium. The serum sodium is usually in the normal range. This is a rare disease and is an unusual cause of hypertension. It is usually considered by physicians if they find an unexpectedly low potassium in a person being treated for hypertension. It generally causes no other specific symptoms or signs. The physical examination in people with hyperaldosteronism is totally normal.

There are two types of hyperaldosteronism: It can occur from hyperplasia in both adrenal glands, or from a benign (rarely malignant) tumor of one of the adrenal glands. When the cause is a single adrenal tumor, it is labeled Conn's Syndrome.

When hyperaldosteronism is considered by a physician, tests are done to look for an excess of the hormone aldosterone in the blood and urine, and also a suppressed plasma renin. Other tests, looking at other adrenal steroid hormones, can be very useful as well as tests looking for the normal physiologic changes in hormones in the morning and evening, as well as responses to sodium challenge or sodium restriction. These tests can help to differentiate the bilateral hyperplasia from an adrenal tumor. When a tumor is suspected, radiologic proof with a CT scan or MRI will usually help to confirm the diagnosis.

The treatment depends on the cause. If there is a single tumor, surgical removal of that tumor can cure the disease. The remaining adrenal gland is usually normal and individuals with this form of the disease will have enough adrenal hormone production from the remaining gland to live normally. Unfortunately, quite often there is still some residual hypertension even after the surgery, so sometimes antihypertensive medication is still necessary. If bilateral hyperplasia is the cause of hyperaldosteronism, this is treated with specific medications that block the effect of aldosterone. There are three such medications: spironolactone (Aldactone), eplerenone (Inspra) and amiloride (Midamor). These medications are very effective, but are sometimes used in combination with other antihypertensive medications for the management of hypertension in individuals with hyperaldosteronism.



The National Adrenal Diseases Foundation is a non-profit organization providing information, education and support to all persons affected by adrenal disease. For more information on joining NADF, or to find a support group in your area, contact:

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