## Cortisol Deficiency: Frequent, Life-Impairing, and How to Give **Patients Their Lives Back by Correcting It, Part 2**

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Part 1 that discusses the signs and symptoms of cortisol deficiency appears in the January 2018 issue and is also available

## To Treat or Not to Treat Cortisol Deficiency?

People with cortisol deficiency who do not get treatment continue suffering from the psychic and physical consequences of cortisol deficiency at every moment of their lives. In the long term, the absence of treatment permits the cortisol deficiency to aggravate and produce chronic inflammatory diseases such as rheumatoid arthritis and psychological disorders, from irritability to the extreme form of paranoid psychosis. Because of the adverse consequences of not treating cortisol deficiency, forgoing treatment is not really an option

## Natural Treatments to Improve Cortisol Levels

The first natural treatment to get a higher cortisol level is to increase light. 194 After moving from a dark room into full daylight, an individual's cortisol level increases by 50% or more within minutes. Thus, the golden rule is to expose oneself to more light: switching. all the lights on in the office and at home and going outdoors at least once a day in full daylight for a minimum of half an hour. This quickly increases not only cortisol levels but also the number of

Second, it is of great importance to breathe cleaner air and eat organic foods to avoid airborne and foodborne pollutants, as toxins usually aggress the zona fasciculata of the adrenal glands that produces cortisol or block the target cells' glucocorticoid receptors, inhibiting part of the action of cortisol.

One of these irritant pollutants is formaldehyde,105 which pollutes many homes and offices. It is part of many types of glue that fix floor coverings to the ground and bind compressed wood together in home and office furniture. It is often part of plastic carpets and toys and slowly outgasses from these objects into the indoor atmosphere over the years, being inhaled through breathing. What to do about it? Apart from getting rid of these formaldehyde-containing materials inside homes, simply open the windows in rooms where such materials are and let outdoor air enter. Regularly ventilating rooms with outdoor air drastically reduces the formaldehyde concentration in the indoor air and, thus, the risk of adrenal gland damage.

Third, increasing the consumption of protein-rich foods, 156-157 such as meat, poultry, and fish, and fat-rich foods, 358-362 such as eggs, yolk, butter (preferably clarified butter), liver, and other organ meats, elevates the cortisol production and level by providing the ingredients for production of cortisol. Augmenting protein is not always easy with patients with cortisol deficiency, as they tend to accumulate nitrogen in the blood by consuming these nitrogen-rich foods.

Indeed, once they consume meat and other protein-rich foods, the high level of nitrogen in their blood (azotemia) gives them nausea and disgust for meat. Fat intake also poses problems, as fats seem hard to digest by these patients, frequently causing indigestion. The solution consists of correcting the cortisol deficiency with a cortisol supplement and encouraging the patients to increase the intake of the protein- and fat-rich foods they tolerate.

People with cortisol deficiency should also avoid "bad" carbs, carbohydraterich foods that reduce the production of cortisol, like sweets, sugars, str. unsprouted bread, muesli, porridge, and rice. These foods can reduce the secretion of cortisol by 20-40%, enough to create problems. If ever they give in to the temptation of a chocolate bar or soft drinks, let them do it after a healthy meal, which dilutes the sugar into a bigger volume, reducing sugar's hyperglycemic effect that blocks cortisol production (peak levels of glucose inhibit cortisol release).

Fourth, some rare nutritional supplements can help the adrenal glands function better, although modestly Vitamin C is one of them. 163-164 With 500 mg to 2 g of vitamin C a day, the action of cortisol may get a boost. L-acetyl-carnitine, the activated form of L-carnitine, is another nutrient whose intake has been shown to significantly increase serum cortisol levels in humans. 185 A dose of 2 g/day may be efficient.