

Adrenal

3:1 Concentrate

Clinical indications:

- Adrenal Fatigue
- Dysregulated HPA Axis

Adrenal is a dietary supplement containing essential nutrients for adrenal gland function. The adrenal is a ductless gland of the endocrine system that is responsible for producing some of the most important hormones in the body. Each gland normally weighs about 5 g and is comprised of two parts: The cortex or outer section, which is responsible for the production of cortisone, and the medulla or central section, which secretes adrenaline. The adrenal cortex helps to maintain salt and water balance in the body. It is also involved in the metabolism of carbohydrates and the regulation of blood sugar. The cortex produces a sex hormone similar to that secreted by the testes as well. The medulla of the adrenal gland produces the hormone epinephrine, also called adrenaline, when the body is under stress. This hormone speeds up the rate of metabolism in order to help the body cope with stressful situations. The functioning ability of the adrenal glands is most often impaired due to extensive use of cortisone therapy for non-endocrine diseases, such as arthritis and asthma. Long-term use of cortisone drugs causes the adrenal gland to shrink in size. Pituitary disease and tuberculosis also cause adrenocortical failure.

Abnormally low adrenal function is an underrecognized problem affecting many in modern society. Various terms have been coined to describe this phenomenon, including “adrenal fatigue” in popular terms, as well as “subclinical hypoadrenalism” or “mild adrenocortical deficiency (MAD)” in medical terms.^[1] Symptoms of mild adrenocortical deficiency include fatigue, weakness, anorexia, nausea, vomiting, weight loss, salt craving, hypotension or orthostatic hypotension, hypoglycemia, hyperpigmentation of the skin, decreased body hair in women, poor immune function, and poor tolerance to stress or exertion.^[2]

Several physicians have documented clinical benefit from the specific use of low-dose cortisol in conditions such as inflammatory arthritis, inflammatory skin conditions such as eczema, allergies, asthma, lupus, ulcerative colitis, chronic fatigue syndrome, chronic viral infection, hypoglycemia, and other chronic inflammatory diseases.^{[2],[3]} The use of cortisol must be restricted to prescription use only. A safer way to support adrenal function is to supply the nutrients and precursors required for healthy adrenal function and cortisol synthesis. This is the basis behind the use of adrenal glandular.

Adrenal concentrate is made from clean lyophilized bovine adrenal. “Lyophilized” simply means a freeze-dry process of the adrenal in the raw state, which provides the highest levels of



biological activity. Vitamin C is an important nutrient for adrenal health; it is sequestered by the adrenal glands, and appears to be secreted by the adrenal glands during times of stress or in response to adrenocorticotrophic hormone (ACTH) stimulation.^[4] In a randomized trial, administration of oral vitamin C was shown to enhance recovery from stress, with a faster return to normal in stress-responsive blood pressure, salivary cortisol levels, and subjective symptoms of psychological stress.^[5]

References

1. Prousky, J. “Mild adrenocortical deficiency (a.k.a. adrenal fatigue): A real diagnosis?” *Journal of Orthomolecular Medicine*, Vol. 27, No. 4 (2012): 155–156.
2. Fritz, H. “HPA dysregulation and human health: What is the evidence?” *Integrative Healthcare Practitioners*, 2011: 56–61.
3. Prousky, J. “Mild adrenocortical deficiency and its relationship to: (1) Chronic fatigue syndrome; (2) Nausea and vomiting of pregnancy and hyperemesis gravidarum; and (3) Systemic lupus erythematosus.” *Journal of Orthomolecular Medicine*, Vol. 27, No. 4 (2012): 165–176.
4. Padayatty, S.J., J.L. Doppman, R. Chang, Y. Wang, J. Gill, D.A. Papanicolaou, and M. Levine. “Human adrenal glands secrete vitamin C in response to adrenocorticotrophic hormone.” *The American Journal of Clinical Nutrition*, Vol. 86, No. 1 (2007): 145–149.
5. Brody, S., R. Preut, K. Schommer, and T.H. Schürmeyer. “A randomized controlled trial of high dose ascorbic acid for reduction of blood pressure, cortisol, and subjective responses to psychological stress.” *Psychopharmacology*, Vol. 159, No. 3 (2002): 319–324.

Each vegetable capsule contains:

Adrenal 3:1 concentrate (from porcine [*Sus scrofa*]) 200 mg
Vitamin C (ascorbic acid) 6 mg

Nonmedicinal ingredients: Peppermint (*Mentha × piperita*) leaf, microcrystalline cellulose, vegetable magnesium stearate, and silicon dioxide in a non-GMO vegetable capsule composed of vegetable carbohydrate gum and purified water.

Directions of use: Adults: Take 1 capsule daily or as directed by your health-care practitioner. If you are taking other medications, take this product a few hours before or after them.

Duration of use: Consult a health-care practitioner for prolonged use.

Cautions and warnings: Consult a health-care practitioner prior to use if you are pregnant or breast-feeding. Do not use if you have hypokalemia, high blood pressure, or a kidney or cardiovascular disorder.

Product #1532 · 90 vegetable capsules · NPN 80061104 · V0365-R9

The first company in the industry to have invested in an ISO 17025–accredited laboratory to test for identity, potency, oxidation, disintegration, purity, and more.



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