

THIS INFORMATION IS PROVIDED AS A MEDICAL AND SCIENTIFIC EDUCATIONAL RESOURCE FOR THE USE OF PHYSICIANS AND OTHER LICENSED HEALTH CARE PRACTITIONERS ("PRACTITIONERS"). THIS INFORMATION IS INTENDED FOR PRACTITIONERS TO USE AS A BASIS FOR DETERMINING WHETHER TO RECOMMEND THESE PRODUCTS TO THEIR PATIENTS. ALL RECOMMENDATIONS REGARDING PROTOCOLS, DOSING, PRESCRIBING AND/OR USAGE INSTRUCTIONS SHOULD BE TAILORED TO THE INDIVIDUAL NEEDS OF THE PATIENT CONSIDERING THEIR MEDICAL HISTORY AND CONCOMITANT THERAPIES. THIS INFORMATION IS NOT INTENDED FOR USE BY CONSUMERS.

Adrenotone™ includes adaptogenic and adrenal tonic herbs and nutrients in order to help the body's adaptation to stress and to support adrenal gland health.*¹ It is designed to help support healthy cortisol levels, hypothalamic and pituitary function (HPTA axis), and catecholamine production (dopamine, norepinephrine, and epinephrine). It also helps address depletions common to those suffering from the effects of chronic stress. Chronic stress can alter levels of cortisol and catecholamines, in addition to causing the depletion of a host of micronutrients.² Cortisol increases have vast effects over serum blood glucose and insulin levels, inducing dysglycemia and laying the foundation for metabolic syndrome.³

Adrenotone™ contains a blend of standardized botanicals including Eleuthero, American ginseng, Ashwagandha, Rhodiola, and Licorice root, all known to be tonifying and rejuvenating to the adrenal glands. The ginseng family of herbs possesses a unique property of aiding in the regeneration and enhanced function of hypothalamic cortisol receptors, providing an amphoteric effect that allows the body to better self-regulate cortisol levels.⁴ N-Acetyl L-Tyrosine, the most bioavailable form of tyrosine, is included as a critical building block of various neurotransmitters, thyroid hormones, and catecholamines, which are often depleted under chronic stress conditions.⁵ Also included are vitamin C, pantothenic acid (B5), pyridoxine-B6 (as P-5-P) and riboflavin-B2 (as R-5-P), which play critical roles as enzyme cofactors in the balanced production of stress hormones.⁵

Eleuthero (*Eleutherococcus senticosus*), also known as Siberian ginseng, has been used traditionally for symptomatic relief of fatigue and weakness and is commonly used today for its adaptogenic and central nervous system-stimulating properties, along with its antidiabetic and immunomodulating activities.⁶⁻⁸ Eleutheroside E (EE), one of its most bioactive phenolic compounds, has been shown in human studies to be significantly effective in mild-to-moderate chronic fatigue, was a safe adjunct to mood stabilizers in bipolar disorder, and significantly improved sleep, well-being, appetite, stamina, mood, and cognitive function in subjects with neurosis without reported side effects.⁶ EE, which is structurally similar to catecholamines (mediators of the sympathoadrenal system), has demonstrated the ability to reduce physical fatigue and enhance physical endurance and performance.^{8,9} The phytosterol glycosides, such as eleutheroside A, structurally resemble corticosteroids that imitate stress hormones helping protect against overactivation of the HPA axis (i.e., stress).⁹

American Ginseng (*Panax quinquefolius*), standardized to contain 5% ginsenosides, is strong and effective, yet the least stimulating of the ginsengs. In traditional Chinese medicine (TCM), ginseng is commonly used for fatigue and depression-related disorders.^{10,11} High levels of glucocorticoids and stress-induced hyperactivity of the hypothalamic-pituitary-adrenal (HPA) axis may lead to or worsen metabolic and/or psychiatric conditions. In an animal model exposed to chronic unpredictable mild stress (CUMS), ginsenoside demonstrated antidepressant-like effects via modulating the hypothalamic-pituitary-adrenal-gonadal axes and increasing brain-derived neurotrophic factor in brain tissues.^{10,12} Ginsenoside Rg1 decreased serum corticosterone levels, and increased serum testosterone, glucocorticoid receptors, and androgen receptors in CUMS-model mice.¹² In an animal model of PTSD, ginsenoside Rg2 normalized the serotonergic system and HPA axis dysregulation by blocking decreased hormone levels, attenuating much of the anxiety and depression associated with PTSD.¹³ Furthermore, chronically elevated cortisol levels can often lead to dysglycemia and decreased insulin sensitivity; and saponins, particularly the ginsenosides, have been shown in RCTs to reduce glucose levels and enhance insulin sensitization and secretion, which plays a critical role in overall stress and hormonal balance.¹⁴

Available in 90 & 180 count capsules

Supplement Facts

Serving Size 3 capsules

Amount Per Serving	% Daily Value	
Vitamin C (as Ascorbic Acid)	100 mg	111%
Riboflavin (Vitamin B-2) (as Riboflavin-5-Phosphate)	5 mg	385%
Vitamin B-6 (as Pyridoxal-5-Phosphate)	5 mg	294%
Pantothenic Acid (as d-Calcium Pantothenate)	250 mg	5000%
Eleuthero (<i>Eleutherococcus senticosus</i>) (root) [standardized to contain 0.8% eleutherosides]	250 mg	*
American Ginseng (<i>Panax quinquefolius</i>) (root) [standardized to contain 5% ginsenosides]	100 mg	*
Ashwagandha (<i>Withania somnifera</i>) (root) [standardized to contain 1.5% withanolides]	100 mg	*
Rhodiola (<i>Rhodiola rosea</i>) (root) [standardized to contain 3% rosavins and 1% salidroside]	100 mg	*
N-Acetyl L-Tyrosine	75 mg	*
Licorice (<i>Glycyrrhiza glabra</i>) (root)	20 mg	*

*Daily Value not established.

Other Ingredients: Microcrystalline cellulose, cellulose (capsule), vegetable stearate



Ashwagandha (*Withania somnifera*), also known as Indian ginseng (though not technically part of the ginseng family), is a well-researched adaptogenic herb that has been used traditionally and revered in the Ayurvedic system of medicine for centuries to promote balance and homeostasis within the body and to counteract the negative effects of stress.¹⁵ It grows in a wide range of habitats and contains a diverse array of bioactive phytochemical constituents, such as withanolides and alkaloids, that contribute to its powerful adaptogenic properties. Ashwagandha is known to help the body successfully adapt to stressful conditions, and has been shown in research to have significantly favorable mental and physiological effects in humans.¹⁶ In a human clinical trial, full-spectrum ashwagandha root extract supplementation produced a significant reduction in stress parameters and cortisol levels in the treatment group compared to controls with no report of adverse effects, suggesting it is a safe and effective herb that helps improve self-assessed quality of life.¹⁶

Rhodiola (*Rhodiola rosea*), or roseroot, is another adaptogenic herb that is well-researched and shown to be clinically effective for improving physical and mental fatigue, and stress-induced chronic fatigue, increasing attention and improving symptoms of depression in humans.⁹ The neuroprotective activity of Rhodiola's active principle, salidroside, was shown to reduce stress-induced disorders related to neurological-endocrine-immune systems via various mechanisms including balancing the HPA axis, stimulating the CNS, and protecting against oxidative damage.^{9,17} The rhodiola in Adrenotone™ is standardized to contain 3% rosavins and 1% salidroside, the same percentage and ratio found in the natural root. It is sustainably harvested at high altitudes from the Siberian mountains, which is where the majority of rhodiola is sourced from for research studies.

Licorice root (*Glycyrrhiza glabra*), potentiates and extends the serum life of cortisol, thereby lessening the demand on the adrenal cortex during stressful conditions.¹⁸ When the mineralocorticoid bioactive, glycyrrhetic acid, was administered for 3-10 days in healthy young normotensive subjects, urinary free cortisol was elevated, but plasma cortisol was unchanged, demonstrating that licorice root inhibits 11 beta-dehydrogenase activity, blocking the conversion of cortisol to cortisone.¹⁹

Recommended Use:

- Take three capsules per day with meals, or as directed by your health care practitioner (divided dosing recommended).

Warning:

Use with caution with patients who are pregnant or lactating, or with those who have hypertension, diabetes, or have had kidney or liver disorders.

Advise patients to discontinue use and consult you if they experience sleeplessness, headache or heart palpitations when using Adrenotone™.

For a list of references cited in this document, please visit:

<http://www.designsforhealth.com/techsheet-references/adrenotone-references.pdf>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Healthcare practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities. Individual monitoring, including liver function tests, may be appropriate.

***These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.**

To contact Designs for Health, please call us at (860) 623-6314, or visit us on the web at www.designsforhealth.com.

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