

# Adrenal Support



## Clinical Applications

- Supports the Body's Response to Stress\*
- Supports Energy Production and Metabolic Function\*

*Adrenal Support pairs glandulars with targeted nutrients to support the body's response to everyday stressors. Among the comprehensive blend of nutrients are high-potency pantothenic acid and vitamin C, activated B vitamins, and mineral amino acid chelates. Gland and organ tissues are derived from an Argentinian bovine source that ensures safety and purity.\**

All ND Formulas Meet or Exceed cGMP Quality Standards

## Discussion

Stress is caused by physiological, psychological, or emotional triggers (stressors) that cause a disturbance in the homeostasis of an organism. How we respond to those stressors (physiologically and psychologically) influences how well we cope with change and with ongoing stress. Structural or physical trauma, distress, poor diet, infection, toxic exposure, leaky gut, births, deaths, lack of sleep, temperature changes, electromagnetic radiation, and allergies or food sensitivities are all potential stressors. Combined, they amount to a total stress level and can ultimately disrupt homeostasis with direct effects on the autonomic nervous system, the hypothalamic-pituitary-adrenal (HPA) axis, and the cardiovascular, metabolic, and immune systems.<sup>[1]</sup> Specifically, research reveals that prolonged stress has a profound effect on the adrenal glands, lymph nodes, thymus gland, and gastrointestinal system.<sup>[2]</sup> Endocrinologist Hans Selye identified the various stages of the stress response (alarm, resistance, and exhaustion) and described the entire phenomenon as the general adaptation syndrome (GAS).

Micronutrients, such as vitamins, minerals, and antioxidants, are involved in the majority of metabolic functions in the body. B vitamins are especially important to energy generation within the cellular mitochondria, and a deficiency of any B vitamin can compromise mitochondrial function.<sup>[3,4]</sup> Riboflavin supports the respiratory chain, niacin supplies protons for oxidative phosphorylation, and pantothenic acid is required for coenzyme A production, metabolic enzyme complex formation, and fatty acid oxidation, increase metabolic demand, energy expenditure, and micronutrient needs.<sup>[5]</sup> Micronutrient sufficiency and balance have been established as crucial to helping maintain a healthy psychological and physiological response to stress.<sup>[6]</sup> Unfortunately, experts estimate that a significant proportion of the general population does not consume adequate dietary levels of several micronutrients. Experts suggest that exogenous supplementation can improve micronutrient status and sufficiency and help support a healthy response to stress.\*<sup>[7]</sup>

Clinical research supports the premise that micronutrient supplementation can favorably support the stress response in a variety of circumstances.<sup>[7]</sup> In a randomized, double-blind, placebo-controlled (RDBPC) trial, high-potency doses of B vitamins and vitamin C along with an array of minerals were studied for their effects on perceived stress scores (measuring one's self perception of stress) in 215 males aged 30 to 55 years. Results revealed significant improvements on the perceived stress scale (PSS), the profile of mood states (POMS), and the general health questionnaire (GHQ-12) for those taking the multivitamin/mineral supplement.<sup>[8]</sup> Another RDBPC study of 80 males revealed consistent and statistically significant modulation in anxiety and perceived stress in the men who took a high-potency multivitamin/mineral supplement compared to those who took the placebo. Participants taking the supplement also reported feeling less tired and better able to concentrate compared to their placebo-taking counterparts.<sup>[9]</sup> Similar results were achieved in a double-blind, placebo-controlled, double-center study of 300 subjects taking a multivitamin/mineral supplement, with significant improvement in baseline stress scores.<sup>[6]</sup> The levels of vitamin C, riboflavin, B6, pantothenic acid, and zinc provided in the recommended dose of two Adrenal Support capsules twice daily meets or exceeds the levels used in these clinical studies. The recommended daily dose of four capsules also provides 30 mg of niacin (compared to 50 mg used in studies) and 90 mg of magnesium (compared to 100 mg used in studies).\*

Adrenal Support also contains a blend of complementary nutrients and purified glandulars. Rhodiola rosea, chlorella, grape seed extract, magnesium, zinc, chromium, bioflavonoids, and L-tyrosine are present at levels that allow for additional supplementation to round out their profile. Activated B vitamins and Albion® TRAACS® (the real amino acid chelate system) mineral amino acid chelates, along with other chelated minerals, are key features of the formula. Adrenal, parotid, thymus, and spleen glandulars are extracted from an Argentinian bovine source that ensures safety and purity.\*

**\*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.**

Manufactured for:  
ND Formulas  
2308 Bellmore Avenue  
Bellmore, NY 11710  
www.ndformulas.com

Adrenal Support



## Supplement Facts

Serving Size: 2 Capsules  
Servings Per Container: 60

Amount Per Serving %DV			Amount Per Serving %DV		
Vitamin C (as ascorbic acid)	175 mg	292%	L-Tyrosine	175 mg	**
Riboflavin (as riboflavin 5'-phosphate)	15 mg	882%	Parotid (from bovine)(Argentina)	80 mg	**
Niacin (as niacinamide)	15 mg	75%	Thymus (from bovine)(Argentina)	70 mg	**
Vitamin B6 (as pyridoxal 5'-phosphate)	10 mg	500%	Chlorella ( <i>Chlorella pyrenoidosa</i> )	50 mg	**
Pantothenic Acid	105 mg	1050%	(broken cell)		
(as d-calcium pantothenate)			Adrenal Gland	25 mg	**
Magnesium (as magnesium citrate)	45 mg	11%	(from bovine)(Argentina)		
Zinc (as TRAACS® Zinc Glycinate Chelate)	5 mg	33%	Rhodiola ( <i>Rhodiola rosea</i> )(root)	25 mg	**
Chromium (as TRAACS® Chromium)	50 mcg	42%	Spleen (from bovine)(Argentina)	20 mg	**
Nicotinate Glycinate Chelate)			Grape Extract ( <i>Vitis vinifera</i> )	1 mg	**
Potassium (as Potassium Glycinate Complex)	2 mg	<1%	(seed)(95% proanthocyanidins)		
			** Daily Value (DV) not established.		
Lemon Bioflavonoids	225 mg	**			
(Citrus x limon)(fruit peel)					

**Other Ingredients:** HPMC (capsule), microcrystalline cellulose, magnesium stearate, and silica.

TRAACS is a registered trademark of Albion Laboratories, Inc.

## Directions

Take two capsules two times daily, or as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Do not use if tamper seal is damaged.

## References

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4. Angelo G. What is metabolism? Linus Pauling Institute. <http://lpi.oregonstate.edu/ss13/metabolism.html>. Accessed October 19, 2013.
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7. Drake V. Micronutrients and Cognitive Function. Linus Pauling Institute. <http://lpi.oregonstate.edu/infocenter/cognition.html>. Accessed October 12, 2013
8. Kennedy DO, Veasey R, Watson A, et al. Effects of high-dose B vitamin complex with vitamin C and minerals on subjective mood and performance in healthy males. *Psychopharmacology* (Berl). 2010 Jul;211(1):55-68. [PMID: 20454891]
9. Carroll D, Ring C, Suter M, et al. The effects of an oral multivitamin combination with calcium, magnesium, and zinc on psychological well-being in healthy young male volunteers: a double-blind placebo-controlled trial. *Psychopharmacology* (Berl). 2000 Jun;150(2):220-5. [PMID: 10907676]

## Does Not Contain

Wheat, gluten, corn protein, yeast, soy, dairy products, fish, shellfish, peanuts, tree nuts, egg, artificial colors, artificial sweeteners, or preservatives.

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