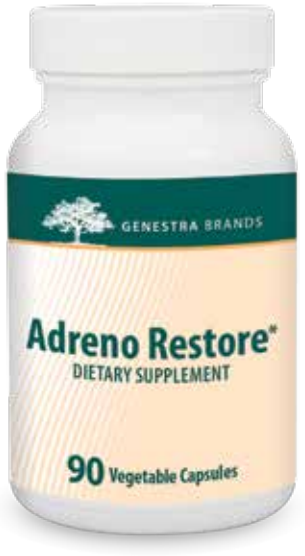
GENESTRA BRANDS

Adreno Restore*

DIETARY SUPPLEMENT



Restorative combination of adaptogenic herbal extracts*

- Includes standardized extracts from ashwagandha, rhodiola, and eleuthero root
- Helps the body respond to mental and physical stress*
- Promotes energy metabolism and physical working capacity*
- Maintains healthy adrenal hormone function*
- Supports general mental wellness*

GENESTRA BRANDS Adreno Restore* is a restorative formula containing rhodiola and eleuthero root extracts. By mediating neurotransmitter activity and nervous system responses, these adaptogenic herbs support cognitive function and mental performance, even after occasional mental and physical stress.[1] Clinical research demonstrates that daily supplementation with 100-200 mg of rhodiola extract significantly supports mental and physical wellbeing during stress, promotes coordination in athletes, regulates fatigue in stressful situations, and provides antioxidant protection.[2-4] Daily supplementation with eleuthero root has been shown to help the body adjust to mental, physical and metabolic stress, and support physical working capacity.[5,6] Adreno Restore* also includes a standardized extract from ashwagandha, a plant used in traditional Ayurvedic medicine.[7]

Supplement Facts

Serving Size 3 Capsules/ Servings per Container 30

Each Serving Contains		
Vitamin C (as magnesium ascorbate)	375 mg	625%
Vitamin B_6 (as pyridoxal 5-phosphate)	24 mg	1200%
Vitamin B_{12} (as methylcobalamin)	400 mcg	6667%
Pantothenic Acid (as calcium *d*-pantothenate)	100 mg	1000%
Magnesium (as magnesium glycinate / ascorbate)	105 mg	26%
Zinc (as zinc citrate)	6 mg	40%
Ashwagandha (*Withania somnifera*) Root Std. Extract (5-8:1) (1000-1600 mg Dried Equivalent / 7% Withanolides)	200 mg	♦
Rhodiola (*Rhodiola rosea*) Root Std. Extract (3% Rosavin, 1% Salidroside)	200 mg	♦
Eleuthero (*Eleutherococcus senticosus*) Root Std. Extract (15:1) (3000 mg Dried Equivalent / 0.8% Eleutherosides)	200 mg	♦

♦ Daily Value (DV) not established

Other ingredients: Hypromellose, ascorbyl palmitate, cellulose, silica

Recommended Adult Dose: Take three capsules daily with a meal, a few hours before or after taking medications, or as recommended by your healthcare practitioner. Not to be taken immediately before bedtime.

Product Size: 90 vegetable capsules **Product Code:** 07333

GLUTEN FREE VEGAN DAIRY FREE

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Scientific Rationale:

Rhodiola

Rhodiola, a plant used in traditional medicine, is found at high altitudes in the Arctic, Asia and Europe.[1] By decreasing the activity of enzymes that degrade neurotransmitters and by prolonging neurotransmitter activity in the brain, rhodiola elevates bio-electrical brain activity.[1] This results in increased cognitive function as well as improved attention, memory and learning abilities.[1] Rhodiola helps to relieve symptoms of stress by decreasing mediators of stress responses, including the stress hormone cortisol and neuropeptide Y, which regulates energy balance, memory, learning and mood.[1,2] Rhodiola also provides antioxidants to promote optimal health.[3]

In a randomized, double-blind, placebo controlled trial, rhodiola intake significantly supported mental function and coordination among male students during an examination.[4] Participants were randomized to consume either placebo or rhodiola tablets (containing a total of 100 mg of rhodiola) daily for 20 days.[4] Efficacy tests, which were conducted at baseline and at the end of the treatment period, analyzed self-rated fatigue, self-rated general well-being, psycho-motor function, and physical fitness.[4] When compared to placebo values, rhodiola supplementation significantly improved self-rated fatigue, self-rated general well-being, and psychomotor function.[4] Specifically, the accuracy of movement (when compared to the speed of movement) significantly improved by 50% when compared to the placebo treatment.[4] Additionally, participants' pulse rates were measured before and after a physical fitness test.[4] The increase in pulse rate was significantly lower in the rhodiola group when compared to the placebo group, further demonstrating the beneficial effects of rhodiola during conditions of stress.[4]

A randomized, placebo-controlled, double-blind, crossover study evaluated the effects of rhodiola supplementation on work-related fatigue.[5] Participants were randomized to consume either a placebo or rhodiola treatment (containing 170 mg of rhiodiola extract) daily for two weeks.[5] After a two week washout period, participants consumed the alternate treatment.[5] Five tests were performed to determine the degree of fatigue, including word association, spelling, subtraction, word recall, and numerical sequencing.[5] A total fatigue measure was calculated from the individual five measurements, which were scored according to the following calculation: (test score before night duty / test score after night duty) x 100.[5] Each test was conducted before and after night duty, with a 24 hour separation period between the tests.[5] The efficacy tests were conducted four times throughout the study: at baseline, after two weeks of supplementation, after the completion of the washout period, and after two weeks of consuming the alternate treatment.[5] When compared to placebo values, performance scores significantly improved by 20% after two weeks of rhodiola supplementation, confirming the ability of the rhodiola supplement to decrease work-related fatigue.[5]

In a randomized, placebo-controlled trial involving male athletes, rhodiola supplementation provided antioxidant support after exercise.[3] Participants randomly consumed a placebo or rhodiola treatment (100 mg of rhodiola) twice daily for four weeks.[3] Blood samples were conducted before and after a 2000 m rowing test, where they were analyzed for total antioxidant capacity – a measure of the total antioxidant status in the body.[3] When compared to baseline values, rhodiola supplementation significantly increased total antioxidant capacity before, directly after, and 24 hours after exercise.[3] Although oxidative stress was induced by exercise, rhodiola supplementation increased antioxidant levels in the plasma of participants, indicating its beneficial effects on antioxidant support.[3]

Eleuthero

Eleuthero supplementation during periods of stress has been found to significantly decrease the activity of the sympathetic nervous system (which controls the body's fight or flight response) and increase the activity of the parasympathetic nervous system (which controls the body's rest and digest activities).[6] Similarly, research has shown that eleuthero promotes mental performance after periods of physical or mental exertion by mediating the signalling of hormones involved in stress responses, including cortisol and norepinephrine.[7,8] This promotes the regulation of the hypothalamic-pituitary-adrenal (HPA) axis, which controls various homeostatic processes in the body.[8] Eleuthero also raises the consumption and use of oxygen to help the body adjust in times of mental, physical, and metabolic stress.[7]

In a randomized controlled trial, eleuthero supplementation provided support for physical and mental stress in adults with moderate fatigue.[9] Participants were randomly assigned to consume either a placebo or eleuthero treatment (containing 2.24 mg of eleutherosides) daily for 2 months.[9] After the 2 month period, all participants consumed the eleuthero treatment.[9] Participants included in the study had chronic, unexplained fatigue, as confirmed by the Rand Vitality Index (RVI), a validated measure of chronic fatigue.[9] Although the RVI ranges from 4 to 24 (representing feelings of low vitality and high fatigue, or high vitality and low fatigue, respectively), participants in this study had RVI values no higher than 12.[9] Questionnaires were completed monthly for 4 months, where participants recorded their feelings from the previous week.[9] Among individuals with moderate fatigue at baseline (RVI of 8-12), significant improvements were observed in RVI scores.[9] Additionally, among participants with moderate fatigue who began the study in the placebo group, significant improvements in RVI scores were observed after consuming the eleuthero treatment for 2 months.[9]

In a clinical trial involving male athletes, eleuthero supplementation promoted physical working capacity in adults during physical stress.[10] Participants consumed either a placebo or eleuthero supplement (containing a total of 300 mg of dried material) for eight days.[10] Maximal

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work capacity was determined using a Monark bicycle ergometer at baseline and after treatment administration.[10] When compared to placebo supplementation, eleuthero intake significantly improved four measures of working capacity, including maximal oxygen uptake, oxygen pulse, total work, and exhaustion time.[10] Specifically, total work increased by 23% in the treatment group, compared to 7.5% in the placebo group (due to the placebo effect).[10] The authors noted that the increase in work following eleuthero supplementation may have resulted from improved cardiac function and oxygen metabolism in tissues and organs. They suggested that as mitochondria use oxygen to produce ATP, increased oxygen metabolism may improve ATP production in muscle cells.[10] In turn, this would positively affect performance, even in times of stress.[10]

Ashwagandha

Ashwagandha is a shrubby plant traditionally used in Ayurvedic and Unani medicine.[11] The roots contain withanolides, the primary bioactive compounds of the plant.[11] Randomized, double-blind, placebo-controlled trials have found that daily supplementation with ashwagandha extract significantly promotes mental wellbeing, including support for cognitive function and occasional stress.[12-14] This neuroprotection may result from the free radical scavenging ability of ashwagandha, or from its ability to promote normal levels of adrenal hormones in times of stress, including cortisol and dehydroepiandrosterone (DHEA).[13-16] This is important to note as the ratio of cortisol to DHEA may be an important clinical marker of HPA axis functioning.[17]

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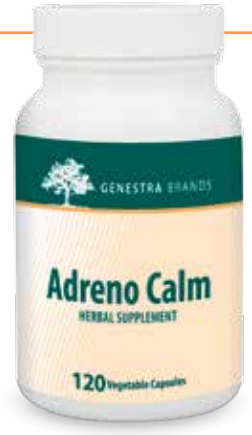
Companion products



Adreno Calm

- Helps to temporarily promote relaxation*
- Helps to maintain healthy cortisol levels during stressful conditions*
- Contains a calming combination of L-theanine, phosphatidylserine, ashwagandha and magnolia*

Biotone EFA

- Combination of free plant sterols from *Glycine max* bean
- Helps to support total and LDL cholesterol levels already within the normal range*
- Provides antioxidants and essential fatty acids to support optimal health*

Scorbatate

- Multi-mineral formula rich in vitamin C
- Helps in the development and maintenance of bones and teeth, glucose metabolism, and skin, immune and muscle function
- Provides 1000 mg of the antioxidant vitamin C per serving

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