ASF (Adrenal Support Formula)

Recommended Use:

- Fatigue
- Sleeplessness
- Depression, anxiety
- Weakened immune system
- Weight gain

ASF (Adrenal Support Formula) is a unique combination of vitamins and minerals used to improve adrenal function by supplying essential nutrients utilized by the adrenal glands in the regulation of both physical and emotional stress.

Life in the 21st century is stressful. Stress can originate from a variety of factors – e.g. emotional, psychological, environmental, physical and other sources. By secreting a number of different types of hormones, the adrenals act as the body's first defense against stress. For instance, stress affects the hormone cortisol (a powerful anti-inflammatory hormone) produced by the adrenal glands. In small quantities cortisol is helpful in supporting tissue repair and controlling excessive production of immune cells. At elevated levels during stress, cortisol suppresses lymphocytes (immune cells) in the blood causing the body's immune function to become depressed. When the body, in defending against stress, is required to operate in this "fight or flight" state for an extended period, it eventually exhausts the adrenals' ability to provide a defensive response. It is under these conditions that the body becomes more vulnerable to disease.

Conditions such as fatigue, sleeplessness, depression, anxiety, weakened immune system and weight gain are all symptoms of dysfunctional adrenal glands. After menopause a woman may feel her sex hormones are depleted. However, the adrenal glands take over many of the endocrine functions responsible for libido, and produce androstenodione, which is converted to estrogen in the form of estrone. Also, the adrenal glands as well as the liver and adipose tissue produce 50% of a woman's testosterone. Recommending a suitable means of improving a woman's adrenal health is an effective means of making the transition through menopause more comfortable for her. While practicing stress management is paramount, one can also "feed" the adrenal glands by supplementing with appropriate phytonutrients as contained in ASF (Adrenal Support Formula).

Siberian ginseng (Eleuthnococcus senticosus) is an adaptogen with the ability to support and recharge the adrenal glands, which enables it to assist in normalizing body functions during stress. Eleuthnococcus senticosus' adaptogenic properties are believed to be associated with eleutherosides, which are a range of glycosides with aromatic alcohol aglycones. The glycosides appear to act on the adrenal glands by helping to prevent both adrenal hypertrophy and the stress-response excess production of corticosteroid and thereby helping to return the adrenals to their normal functioning state faster.

Medicinal ingredients: Each vegetarian capsule contains:

Siberian Ginseng root (Eleutherococcus senticosus) 4:1 DHE 400 mg.	100 mg
Licorice root (Glycyrrhiza glabra).	100 mg
Arctic root (Rhodiola rosea) 3% salidroside	100 mg
Vitamin B5 (D-Pantothenic acid)	160 mg
Vitamin C (Calcium ascorbate)	50 m

Non-medicinal ingredients: Magnesium stearate, silicon dioxide, microcrystalline cellulose.

Recommended dose (adults): Take 1 capsule 3 times a day or as directed by a health care practitioner.

Duration of use: Consult a health care practitioner for use beyond 4 - 6 weeks. Do not take immediately before bedtime.

Caution/warnings: Consult a health care practitioner if symptoms persist or worsen, or if you are pregnant or breastfeeding. Consult a health care practitioner prior to use if you have any type of acute infection, liver disorder, if you are taking antidepressant medication, hormone replacement therapy or birth control pills.

Contraindications: Do not use if you have high blood pressure, hypokalemia or a kidney or cardiovascular disorder. Do not use if you are taking thiazide diuretics, cardiac glycosides, corticosteroids, stimulant laxatives, or other medicine which may aggravate electrolyte imbalance. If you have bipolar disorder or bipolar spectrum disorder, do not use this product.

Known adverse reactions: If you experience irritability or insomnia, discontinue use.

NPN 80044303 • 90 Capsules

Several studies have shown that Eleuthero (as it is also called) increases a person's resistance to stress and exhibits anti-fatigue, anti-stress, immuno-enhancing and anti-depressive effects on the body.[1] Siberian ginseng also seems to have a general tonic effect on the body, in particular on the adrenal glands. Several studies, in Russia, have demonstrated this herb helps the body to better withstand heat, cold, infection, other physical stresses and radiation. Furthermore, athletes have experienced an improvement in stamina when taking Siberian ginseng and for menopausal women it seems to offer protection against osteoporosis.[2]

Licorice (Glycerrhiza glabra) is an herb used to support the adrenal glands. Glycyrrhizin, one of the active constituents in licorice acts as an adrenal stimulant. Glycyrrhizinic acid increases the level of cortisol in the body by slowing the breakdown of cortisol. Licorice is able to tone the adrenals by relaxing and strengthening them to continue pumping out adrenalin, but in more measured amounts.

When cortisol levels are low, one of the ways to sustain more normal levels is to slow or inhibit its breakdown. The only known readily available inhibitors of the enzyme that deactivates cortisol (11 beta-HSD) are glycyrrhizic acid (found in licorice root), progesterone, and flavonoids (in grapefruit). The concept of extending cortisol bioactivity via 11 beta-HSD inhibition is well established, but the manner in which progesterone alters 11 beta- HSD is not currently clear. To get the required quantity of flavonoids from grapefruit, one would need to eat 10 to 15 grapefruits. Alternatively licorice root extract can be used to balance cortisol levels.

Licorice exhibits steroidal effects and has been used to aid in withdrawal from steroidal anti-inflammatory drugs. Besides being useful in adrenal support, licorice's hormonal supportive characteristics make it useful in cases of chronic fatigue syndrome. The presence of excess hair on a woman's face or body is one sign that adrenal support is warranted. The estrogenic properties of licorice root enable it to help in normalizing and regulating a woman's hormone levels during menopause.

Arctic Root (Rhodiola rosea) is a natural plant extract that increases the body's ability to cope with internal and external stress factors. Classified as an adaptogen, it increases the amount of b-endorphin in the blood plasma, which has the effect of inhibiting the hormonal changes indicative of stress. Studies have verified the adaptogenic benefits of Rhodiola rosea, through both human and animal trials.

Some of these benefits include: improved physical performance,reduced exhaustion and accelerated recovery after heavy training workloads; increased muscle energy production, protein synthesis and anabolic activity; reductions in or prevention of stress induced heart damage; enhanced thyroid function without causing hyperthyroidism; protection of the thymus gland from shrinkage associated with stress and aging; and; increased adrenal gland reserve without causing adrenal hypertrophy. Studies have shown that R. rosea improves amenorrhea (loss of menstrual cycle) in women.

Vitamin B5 (Pantothenic acid) is known as the anti-stress vitamin and a deficiency of pantothenic acid may lead to adrenal atrophy. Foods rich in pantothenic acid include: whole grains, legumes, cauliflower, broccoli, salmon, sweet potatoes, and tomatoes. The body relies on pantothenic acid to help the adrenal glands produce stress hormones during times of both psychological and physical strain. It supports the adrenal glands by increasing the production of cortisol and other adrenal hormones to help counteract stress and enhance metabolism.[3] This makes it beneficial in dealing with emotional upset, depression, anxiety, migraines, chronic fatigue, and withdrawal from alcohol or tobacco. Pantothenic acid may also help to reduce the frequency of migraines by supporting serotinin production; which some research suggests is evident in abnormally low levels in migraine sufferers.

Vitamin C (Calcium ascorbate) is stored in high concentrations in the adrenal glands and prolonged stress will deplete vitamin C in the adrenal. Vitamin C stimulates adrenal function and the release of norepinephrine and epinephrine (adrenaline), which help the body to handle infections and stresses of all kinds. Vitamin C stimulates adrenal function and the cells of the adrenal glands use vitamin C at a higher rate than any other cells in the body.

Vitamin C needs are increased with all kinds of stress, both internal (emotional) and external (environmental). Smoking reduces vitamin C levels in the body, and so does alcohol, birth control pills, hormone replacement drugs for menopause, and aspirin. A research study at the

University of Alabama found that animals given vitamin C did not need to produce stress hormones; whereas, animals that did not receive vitamin C experienced three times the level of stress hormones in their blood.[4]

People who have high levels of vitamin C do not show the expected mental and physical signs of stress when subjected to acute psychological challenges and they recover from stressful situations more quickly than individuals with low levels of vitamin C in their blood. In a German study, Researchers demonstrated that individuals administered vitamin C, when faced with a stressful situation, maintained cortisol levels significantly lower than individuals not given vitamin C. Earlier studies showed that vitamin C abolished secretion of cortisol in animals that had been subjected to repeated stress.

References:

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3. Fidanza A. Therapeutic action of pantothenic acid. Int Journal Vit Nutr Res 1983;suppl 24:53-67
4. August 1999, American Chemical Society Conference, New Orleans, LA. Vitamin C study presented by P. Samuel Campbell, Chairman of the Biological Sciences Department at the University of Alabama.