



NEW SPIRIT
NATURALS



ADRENAL PRO™

NUTRITIONAL AND ADAPTOGENIC SUPPORT

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Chronic negative stress triggers a number of critical changes throughout the body. These stressors act along multiple biochemical pathways, including the endocrine, nervous, and immune system. **It has been estimated that 75-90% of all visits to primary care physicians are now related to the effects of stress¹.** Possibly more alarming is that stress shortens our telomeres (the so called DNA molecule longevity cap on the end of our chromosomes) which in turn leads to accelerated aging. As long as stress levels are low, the effect of stressors are modulated by homeostasis. Homeostasis is the body's ability to maintain harmonious equilibrium by constantly readjusting its physiological processes. However, when stress is severe, chronic or multilayered, biochemical changes have the potential to overwhelm the body's natural homeostasis process. Neuroscientists have termed "Stress" to mean: "Conditions where an environmental demand exceeds the natural regulating capacity of an organism, in particular situations that include unpredictability and uncontrollability"².

As a result of demand exceeding capacity, harmful effects can persist long after the stressful situation has been normalized. Biochemical changes can have long lasting effect and this can result in "homeostatic imbalance". First, within seconds of a stressful event, various biochemicals called neurotransmitters and hormones such as cortisol are released into the bloodstream. These chemicals launch our fight-or-flight response and other stress adaptation responses such as rises in blood sugar (glucose), constriction of blood vessels, heart rate increases with blood being diverted away from the digestive system.

This response may last for several hours, days, weeks or longer as the effect of stress are activated along specific biochemical pathways. If the body cannot restore the equilibrium quickly, the likelihood of permanent damage is increased due to homeostatic imbalance.

These Biochemical effects can be complicated and diverse and can include: **obesity, diabetes, osteoporosis, hypertension, cardiovascular disease, infectious disease, gastric ulcer, cancer, gastrointestinal complaints, skin issues, neurological disorders, sexual response and dysfunction, physiological problems, cognition and memory problems, inflammation issues (cyclooxygenase or COX enzymes), lipid peroxidation (hepatic issues), cortisol (steroid hormone), Neurotransmitter issues (noradrenalin, dopamine, serotonin, acetylcholine and GABA), hypothalamus-pituitary-adrenal (HPA) axis regulation, antioxidant issues, energy issues (ATP) and immune issues³.**

The Good News

Scientists have long known that homeostasis can be supported through the use of nature's extracts called **Adaptogens**. But to be effective they need to be combined in such a way that they would complement the body response and each other and help to naturally modulate the multiple pathways involved in stress issues. **Adaptogens are a group of pharmacological compounds that support the ability of an organism to respond appropriately to stress, preserve structure and functions from the damaging effect of stress and hasten faster recovery of normal body processes (homeostasis).** Adaptogens main activity is to increase a heat shock protein known as Hps70. Hps70 plays a key role in cell survival and apoptosis (programmed cell death)⁴. Each adaptogen works among different pathways and when combined together properly they have the potential to modulate multiple pathways, bringing about improved mental and physical health and reduced incidence of chronic diseases and increased longevity^{5&6}.

Recent research has unveiled that **nine adaptogens** have the ability to protect us against multiple cellular pathways and stress.

New Spirit Naturals has combined all these into a new product called Adrenal Pro™.

NUTRITION WITH INTENTION™



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#1 **Ashwagandha (Withania somnifera)- Adaptogen**

Ashwagandha, also known as Indian ginseng is considered the foremost Adaptogen in Aaurvedic medicine. Studies have shown that Ashwagandha has the ability to help the body recover from the energy loss and mood- altering effects of chronic stress in a double blind study of 98 chronically stressed men and women.

That study used three levels of Ashwagandha:

- 125mg once a day
- 125mg twice a day
- 250mg twice a day
- Plus placebo

Stress levels were assessed for 60 days using a modified Hamilton anxiety (mHAM-A) scale. Additional biochemical values were measured such as cortisol and blood pressure.

A reduced score on the Hamilton Scale indicates fewer symptoms of:

- fatigue
- flushing
- sleeplessness
- irritability
- feeling of impending doom
- perspiration
- headache
- inability to concentrate
- dry mouth
- forgetfulness
- palpitations
- loss of appetite
- muscle pain

Results After 10 Days

125mg daily group: Had significantly reduced mHAM-A anxiety scores. In addition a significantly reduced level of C-reactive protein (a measure of inflammation) pulse rate and blood pressure as well as balanced levels of serum cortisol⁸.

The higher dose (250 mg) dependent: Also showed greater, dose dependent responses in the same anxiety and chemical pathways but researchers found that the higher dose subjects showed significantly reduced mean fasting glucose serum lipid profiles and cardiac risk ratios⁹.

Scientists have found that Ashwagandha modulates stress included changes to homeostasis in the areas of:

- Neurotransmitters (effecting depression and anxiety)¹⁰
- Antioxidant activity¹³
- Blood Sugar¹¹
- HPA Axis Activity¹⁴
- Cortisol¹²
- Inflammation¹⁵
- Lipid¹⁶
- Gastric Ulceration¹⁷

#2 **Bacopa (Bacopa Monnieri)- Adaptogen**

Also known as **water hyssop**, it has been used for several thousand years, especially in India, as a rejuvenation herb. Research has indicated that it has an Adaptogenic effect on systems related to cognition, motivation, sensory and motor function^{18,19}. It has been additionally been shown to promote significant decreases in stress related anxiety, mental fatigue, memory loss and stress-triggered disruptions in homeostasis²⁰ such as:

- Cortisol²¹
- Lipid peroxidation²⁵
- Neurotransmitters²²
- Cognition and memory²⁶
- Antioxidant activity²³
- Amyloid²⁴

Study

Double Blind Placebo-controlled study

18 study participants Age 60-75

300mg once a day (**Equivalent to 220 mg of New Spirit more concentrated standardized Bacopa extract used in Adrenal Pro™**)

Length of study - 4 months

Results:

30% improvement in mood, particularly depression

24% improvement in aspects of learning and memory

23% improvement in focus and attention

15% improvement in performance measures of intelligence

The study's most compelling findings was the trend to do better on tests of attention, processing speed and working memory²⁷.

This compound has been shown to act on serotonin 5HT1a receptors which are responsible for higher order cognitive processes such as memory and mood²⁸.



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#3 Holy Basil (Ocimum tenuiflorum) - Adaptogen

Holy Basil, also known as **tulsi**, has been used as a medicinal herb for thousands of years. Studies reveal that it moderates the effects of a variety of stress responses as well as decreases cholesterol and increases endurance²⁹.

Holy Basil has been shown to help maintain internal equilibrium by normalizing specific stress-induced, homeostatic imbalances in the area of:

- Blood sugar³⁰
- Antioxidant activity³¹
- Inflammation³²
- Gastric ulceration³³
- Cholesterol levels and lipid peroxidation³⁴
- Plasma creatine kinase (an enzyme)³⁵

Study

Scientists analyzed a randomized double-blind, placebo-controlled study in which the patient took 1200 mg. a day of Holy Basil and 79 others took a placebo. Various cognitive and energy-related symptoms on stress were measured using a standardized analysis (RMANOVA) at 0, 2, 4, and 6 weeks.

Scores showed substantial improvement for all stress related symptoms measured including forgetfulness, sexual problems of recent origin, frequent feelings of exhaustion and frequent sleep problems of recent origin.

Overall stress-management scores were found to have improved by an **additional 39%** for the Holy Basil group over the placebo group. Surprisingly, this was observed in only six weeks!³⁶

#4 Cordyceps (Cordyceps Sinensis) - Adaptogen

Research has established cordyceps (a medicinal mushroom) as a therapy for the accelerated strengthening and revitalization of the body after exhaustion or lengthy illness.

Additional studies show that Cordyceps normalizes stressed induced homeostatic imbalanced in the following areas:

- Blood sugar³⁷
- Antioxidant activity³⁸
- Inflammation³⁹
- Lipid peroxidation⁴⁰
- ATP⁴¹
- Sexual functions⁴²
- HPA axis activity⁴³

An area of interest in the study of cordyceps has been the effects of chronic stress on reduced libido. In a randomized, double-blind placebo controlled study of 189 men and women with decreased sex drive scientists found surprising results. **Over 66% experienced improvement in sex drive in just 40 days.**⁴⁴ Not only did it support continual sex drive in healthy participants, it reversed previously assessed libido loss.

The study was conducted using a dosage of 3 grams daily. This translates to 750 mg. of the special standardized Cordyceps that Adrenal Pro™ contains as it is a 4:1 concentrate.

#5 Jiaogulan (Gynostemma pentaphyllum) - Adaptogen

Jiaogulan is a plant that grows wild in China and other countries throughout Asia. It functions both as an adaptogenic herb and as an antioxidant. It is sometimes called “southern ginseng”. Its chemical composition is similar to ginseng but superior and is often referred to as the “Immortality” herb since it contains many antioxidant and adaptogenic effects purported to increase longevity. One report comes from a village near Faning Mountain in Guizhou province, where inhabitants drink Jiaogulan tea instead of the more common green tea. As a result, many people living there have a history of unusual longevity⁴⁵. (History of Jiaogulan, Chapter II, China’s Immortality Herb, Michael Bulmert)

Jiaogulan is known to contain many active components known as saponins, triterpenoids and gypenosides. In fact, 82 saponins (gypenosides) have been identified in jiaogulan as compared to 28 (ginsenosides) found in Panax ginseng⁴⁶.

Jiaogulan is known as an adaptogenic which is an herb reputed to help the body maintain optimal homeostasis⁴⁷. Adaptogenic effects include regulating blood pressure and the immune system, improving stamina and endurance⁴⁸.

Jiaogulan has been found to increase superoxide dismutase (SOD) which is a powerful endogenous cellular antioxidant. Studies have found it increases the activities of macrophages, T lymphocytes and natural killer cells and that it acts as a tumor inhibitor⁴⁹.

Numerous clinical studies in Chinese medical literature have shown that jiaogulan lowers serum cholesterol, triglycerides and LDL while raising HDL, with reported effectiveness rates ranging from 67%-93%⁵⁰.



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Other reported benefits in addition to establishing homeostasis in the body include; helps jet lag, altitude sickness, balances out endocrine hormones in both men and women, regulate blood pressure, reduce fatigue, improve vigor and stamina. Helps improve cardiovascular function, helps in reducing hypertension and increasing hypotension⁵¹.

#6 Schisandra (schisandra chinensis) - Adaptogen

Commonly referred to in Chinese as “five flavor berry” since the berries possess all five basic flavors: Salty, Sweet, Sour, Spicy and Bitter⁵². Schisandra is one of the oldest Chinese herbal medicines with references written in Chinese medical books in the first century. It is considered in Traditional Chinese Medicine (TCM) as one of the 50 fundamental herbs. It is one of the few herbs that is said to contain the “Three Treasures” known as Jing, Shen and Qi (Chi).

Studies indicate it has adaptogenic, antioxidative capabilities and a liver protective effect.

Schisandra chinensis first gained recognition as an adaptogen in the official medicine of the USSR in the early 1960's – principally as a result of the large number of pharmacological and clinical studies carried out by Russian scientists in the preceding two decades. Schisandra is now included in the National Pharmacopeia of the USSR and in the State Register of Drugs⁵³.

Pharmacological studies have shown that schisandra increases physical working capacity and afford stress protection against a broad spectrum of harmful factors including heat shock, skin burn irradiation and heavy metal intoxication. Schisandra increases endurance and accuracy of movement and mental performance.

In Chinese Medicine: Schisandra rejuvenates the body, increase in the vital energy (Qi), cures cough, fatigue, acts as sexual tonic (similar to maca root powder). Used mainly in the treatment of lung and kidney disease. Relieves excessive sweating, has healthy benefits in the treatment of urinary and reproductive systems and helps generate body fluids and alleviate thirst⁵⁴.

As an Adaptogenic: Known for its stimulatory effect on the nervous system without the effect of excitement like amphetamines or caffeine. The higher degree of exhaustion the greater the stimulating effect.⁵⁵

As an Anti-fatigue: Can improve performance, increase strength and reduce fatigue while improving concentration. Lends to quicker and stronger reflexes. Also has beneficial effects on eyesight and hearing as well as increased field of vision and improved adaptation to darkness.⁵⁶

For Immunity: Active components in schisandra helps prevent inflammation, protects the liver and stimulates the immune system (similar to Cordyceps sinensis and Hericum erinaccus)

Numerous clinical trials have demonstrated the efficiency of schisandra in asthenia, neurologic and psychiatric (neurosis, psychogenic, depression, astheno-depressive states, schizophrenia and alcoholism) disorders, in impaired visual functions, hypertension and cardiotoxic disorders, in epidemic waves of influenza, in chronic sinusitis, otitis neuritis, otosclerosis and in pneumonia.⁵⁷

#7 Astragalus (Astragalus Membranaceus)- Adaptogen

Astragalus has been used in Traditional Chinese Medicine (TEM) for thousands of years as an adaptogen, meaning it is thought to help protect the body against various stresses including physical, mental and emotional stress.

Current western applications of Astragalus are **primarily restoring and strengthening the immune response, enhancing cardiovascular function and increasing vitality. Indications supported by clinical include impaired immunity adjunctive cancer treatment, and viral infections** including the common cold and cervical erosion associated with Herpes Simplex.⁵⁸ (Thorne Research Inc. Alternative Medicine Review Vol. 8, Number I, 2003)

Astragalus has **antibacterial and anti-inflammatory properties**. It contains antioxidants which protect cells from damage caused by free radicals – by products of cellular energy.

In the United States, researchers have looked at Astragalus as a possible treatment for people whose immune systems have been weakened by chemotherapy or radiation. In these studies, Astragalus supplements seem to help people recover faster and live longer (University of Maryland Medical Center, Astragalus, 2003)



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#8 Noni (Morinda citrifoli)- Adaptogen

Noni is the new rage among adaptogens. It is known to act as an antioxidant, relieve stress and fatigue, antinociceptive (reducing sensitivity to painful stimuli), prevent/curb effects of noxious stimuli and anti-inflammatory.

But based on normal studies and clinical practice, it is widely believed that polysaccharide-rich substances found in noni attack abnormal cells and abnormal growth by stimulating the body's immune system. In some limited animal cancer studies, noni treatments reduced the formation of abnormal cells in the heart, liver and kidneys and prolonged the life span of mice by more than 75%⁵⁹.

Noni is known to contain certain phytonutrients that are believed to be responsible for its beneficial effects such as:

Anthraquinones (Damna Canthol)

These stimulate the immune response to cancer by activating the body's T cells or "cancer cells"

Glycosides

Newly discovered compounds that help prevent cancer and scavenge free radicals

Scopoletin

It is anti-inflammatory, anti-histamine, anti-fungal and antibacterial. It helps regulate serotonin, the body's "feel good" hormone, which helps ward off anxiety and depression.

It also serves as a vasodilator and lowers blood pressure. It binds to melatonin and helps regulate sleep, hunger and body temperature.⁶⁰

#9 Licorice (Glycyrrhizin Glabara) -Adaptogen

Licorice contains many active compounds such as isoflavonoids, glycyrelizin, chalcones, coumarins, sterons, amino acids and lignans. These compounds have been shown to have cortisol sparring properties, estrogen modulating properties and anti-inflammatory properties.

Glycyrrhizin has the ability to down regulate the enzyme 11-Beta-Hydroxylase which is responsible for converting active cortisol into a less active glucocorticoid cortisone. Glycyrrhizin and lignan also exhibit estrogenic action when estrogen levels are too low. When estrogen levels are too high, it has the ability to inhibit estrogenic action. This activity is important in the adrenal exhausted male or female patient since they usually suffer from altered estrogen metabolism.⁶¹

It has shown anti-viral properties due to its ability to increase interferon production and inhibit viral RNA replication.⁶² Licorice also has anti-inflammatory and anti-allergenic activity.⁶³ These properties are very helpful with the adrenal exhausted patient because they are usually prone to allergies and sensitivities.

Recommend Usage

- One to two capsules per day for general adrenal support and stress
- For more therapeutic application, take four capsules per day individual in doses.

These statements have not been evaluated by the FDA. Information contained in this bulletin is for informational purposes only and is not intended to diagnose, treat, cure, or prevent any disease. In all cases, its is recommended that you consult with your healthcare professional before initiating a supplement program.

Sustained stress has been acknowledged as a key driver of many of today's psychological and physical health complaints.[†] The body is always naturally trying to maintain balance or "homeostasis" during times of stress.[†] We can assist our natural process by trying to minimize our stress.[†] **Adrenal Pro™** contains some natural adaptogenic plants that may provide nutritional support in times of stress.[†]

Suggested Use: Take one capsule daily. Take two capsules for additional support.

Store tightly closed in a cool place.

No preservatives, color or flavoring.

KEEP OUT OF REACH OF CHILDREN. #2073

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Supplement Facts
Serving Size: 1 capsule
Servings per bottle: 60

	Amt Per Serving	%DV
Proprietary Blend	650 mg	†
Cordyceps (Cordyceps sinensis) mycelium, Bacopa ext. (Bacopa monnieri) stems & leaves, Holy Basil ext. (Ocimum sanctum) leaves, Ashwagandha ext. (Withania somnifera) root, Astragalus ext. (Astragalus membranaceus) root, Jiaogulan (Gynostemma pentaphyllum) whole herb, Schisandra (Schisandra chinensis) fruits, Noni ext. (Morinda citrifolia) fruits, Licorice (Glycyrrhiza glabra) root.		
†Daily Value (DV) has not been established		

Other ingredients: Vegetarian capsule. Nutrition With Intention™

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Adrenal Pro™
Nutritional & Adaptogenic Support

DIETARY SUPPLEMENT

60 Capsules

1-63: References available upon request.

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