

CalmGenic

Mood, Stress, & Anxiety Support

Alimentum Labs

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Mood, Stress, & Anxiety Support

A blend of herbs, amino acids, and nutrients that promote a sense of calm and reduce feelings of anxiety by managing healthy cortisol levels and supporting the HPA axis through the regulation of stress-reducing genes such as *TPH2*, *SLC6A4*, *GABRA1*, *COMT*, and others.



Health Indications

- Support and Improve Mood
- Reduce Mental and Physical Stress
- Support Healthy Adrenal Function
- Reduce Stress-Related Gas and Bloating
- Improve Adrenal Fatigue
- Promote Healthy Sleep Cycles
- Balance Testosterone Levels in Men with Chronic Stress
- Promote Healthy Serotonin Activity
- Manage the HPA Axis for Healthy Stress Response
- Support Overall Emotional Well-Being

Instructions For Use

Take 2 capsules once or twice daily, or as directed by your healthcare provider.

**Individual needs may vary; please consult your practitioner before altering the prescribed doses or protocols.

Product Description

Current research shows that the prevalence of feelings of anxiety, mood issues, and chronic stress affects more than a quarter of the population.¹ Stress and anxiety are normal and necessary features of a functional nervous system; without them, the human race would not have survived. However, due to various circumstances, stress and anxiousness can reach levels that negatively impact quality of life. Regardless of the cause or severity of anxiety or stress, the body's stress response is regulated by the hypothalamic-pituitary-adrenal (HPA) axis. The HPA axis is the most important system of the neuroendocrine system responsible for regulating various physiological processes related to the management of stress.

In normal circumstances, the HPA axis responds to stress by starting with the hypothalamus releases corticotropin-releasing hormone (CRH). This signals the pituitary gland to produce adrenocorticotropic hormone (ACTH), ultimately leading the adrenal glands to release a stress hormone called cortisol. After the stressor is gone, the HPA axis is designed to restore the body to a normal, calm state. However, a dysregulated HPA axis due to chronic stress or unhealthy lifestyle choices can disrupt this balance, resulting in excessive or prolonged release of stress hormones, cortisol in particular, even during non-stressful situations.





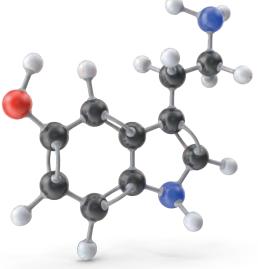
Product Description

This dysregulation is often associated with chronic stress symptoms collectively known as adrenal fatigue. Adrenal fatigue includes, but is not limited to: feeling tired for no reason, feeling rundown and easily overwhelmed, having trouble getting up in the morning despite getting a full night's sleep, experiencing sweet and salty cravings, having difficulty recovering from illness, and experiencing a heavy dependence on caffeine to be productive. A dysregulated HPA axis and adrenal fatigue have widespread effects on the body and contribute to various health issues such as mental health disorders, immune system dysfunction, sleep disorders, and metabolic disturbances. Balancing the intricate interplay between stress, the HPA axis, and overall health is necessary for achieving optimal well-being.

Various stressors can cause dysregulation of the HPA axis, especially prolonged exposure to chronic stress from work, relationships, life challenges, or other stressors. Research also links factors like poor sleep patterns, inflammatory conditions, nutritional imbalances, trauma (especially during early life), genetic variations, certain medications, and a lack of physical activity with a disrupted HPA axis. Additionally, genetic variations in certain genes are common in individuals reporting anxiety and stress disorders. These genes impact the synthesis of neurochemicals and sensory receptors, which directly affect the HPA axis response and management of stress.

CalmGenic helps correct a dysregulated HPA axis by providing nutrients that promote the healthy expression of genes responsible for producing happy and calming neurochemicals like gamma-aminobutyric acid (GABA) and serotonin.

CalmGenic also addresses missing or lacking nutrients in individuals with anxiety, stress, and sleep complications. The ingredients in CalmGenic help modulate the balance between glutamate and GABA to bring the brain back into a calm state that can, over time, rebalance the HPA axis, allowing the body to naturally manage stress again. CalmGenic's nutritional and genetic approach offers adaptogenic properties and promotes better memory, focus, sleep quality, and overall cognitive performance, providing a sense of calmness even during times of stress.



Key Elements and Features of CalmGenic

Manage and Reduce Cortisol Levels

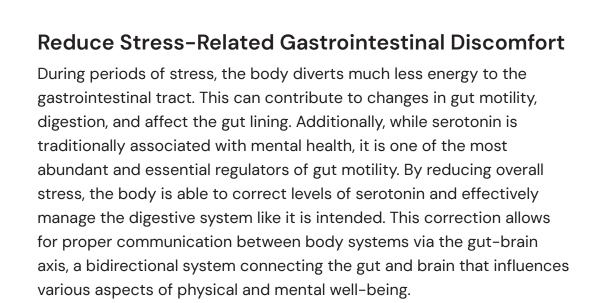
Elevated cortisol levels from chronic stress can have a multitude of adverse effects on the body. These include impaired cognitive function, disrupted sleep patterns, weight gain, weakened immune system, digestive issues, cardiovascular problems, mood disorders, and impacts on muscle and bone health. High cortisol is even related to excess weight stored around the midsection and lowered testosterone levels in males. The consequences vary among individuals due to genetic factors and overall health.

Reduce Stress, Anxiousness, and Fatigue

Elevated stress for extended periods of time can cascade into other problems like increased anxiousness, disrupted sleep, and overwhelming fatigue. Easing levels of stress through nutritional and genetic support targets the problem at its root instead of masking multiple symptoms.

Reverse Adrenal Fatigue and Restore a Healthy HPA Axis

A healthy HPA axis is crucial in correcting the response to stress and management of mental health. Correcting this feedback loop allows the body's adrenal glands to recalibrate and heal. This supports mental, emotional, and physical health.



Manage Disrupted Sleep and Healthy Sleep-Wake Cycles

Sleep disruption and irregular sleep-wake cycles can significantly impact stress, mental health, and overall well-being. Adequate, quality sleep is crucial for cognitive function, emotional regulation, and maintaining a healthy stress response. Disruptions in sleep patterns can lead to increased stress levels, heightened emotional reactivity, and an elevated risk of overwhelming feelings of anxiety and depressed mood. A healthy sleep-wake cycle supports optimal functioning of the body's physiological processes, including hormone regulation and immune functions, contributing to overall well-being.



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Key Features

Gene Spotlight

Hundreds of genes are involved in the regulation of neurotransmitters in the body. Primarily, there are genes that encode transporters, which move neurotransmitters in or out of a cell; genes that encode receptors for a particular neurotransmitter to receive the chemical message communicated through neurotransmitters; and genes that encode enzymes that break down neurotransmitters. There are specific genes, transporters, receptors, and enzymes for each type of neurotransmitter, which quickly adds up to a complicated system. Various factors can influence how well these genes and proteins work, such as mutations, diet, environmental exposures, and more. CalmGenic provides a multifaceted approach to address dysregulation of this system to help reverse unmanaged stress and restore peace.

Genetic Interactions

Tryptophan Hydroxylase 2 (*TPH2*) Gene

Serotonin Transporter (*SLC6A4*) Gene

Serotonin Receptors 1A and 2A (*HTR1A/HTR2A*) Genes This gene encodes an enzyme involved in the conversion of tryptophan to 5-hydroxytryptophan, a precursor of serotonin. This is the most critical step in the series of reactions involved in converting tryptophan to serotonin. Alterations in *TPH2* expression or function can affect serotonin levels.²

This gene encodes the serotonin transporter enzyme (SERT), which regulates the reabsorption of serotonin from the space between communicating neurons, known as the synaptic cleft, back into the neuron that initially secreted the serotonin, also known as the presynaptic neuron. Genetic variations in *SLC6A4* may contribute to dysregulation of serotonin in the brain and are a target of many mental health-related drugs.³

Serotonin receptors are proteins that are designed to respond to the release of serotonin, typically continuing a signal through neurons. There are many types of serotonin receptors found in the brain and body, as serotonin serves multiple functions. These serotonin receptor genes encode for two of these receptors. They are found in high concentrations in the brain, extensively studied, and targeted by some mental health-related drugs.⁴

Although not directly involved in serotonin synthesis or reuptake, this gene encodes the MAOA enzyme, which breaks down neurotransmitters like serotonin, dopamine, and norepinephrine. MAOA enzymes are targeted by a group of mental health-related drugs, but are not commonly used today.⁵

GABA is a critical neurotransmitter that has inhibitory, or calming, effects on the nervous system. Like all neurotransmitters, it is regulated by multiple specific enzymes involved. GABA transporter genes like SLC6A1 encode a protein called GABA transporter 1(GAT-1), which reabsorbs GABA from the synaptic cleft. There are also multiple types of receptors for GABA, like GABA-A and GABA-B receptors; the expression of the genes encoding these receptors helps regulate GABA-mediated signaling in the brain and body. Additionally, excess levels of GABA must be broken down by enzymes encoded by 4-aminobutyrate aminotransferase (ABAT) and aldehyde dehydrogenase 5 family member A1 (ALDH5A1) genes. All of these components work together to carefully manage GABA levels and responses, but alterations can lead to dysregulation in the GABA system.^{6,7}

This gene encodes an enzyme that converts glutamate to GABA, a neurotransmitter that calms the nervous system. Mutations in the GAD1 gene can impair its function, leading to suboptimal levels of GABA.⁸

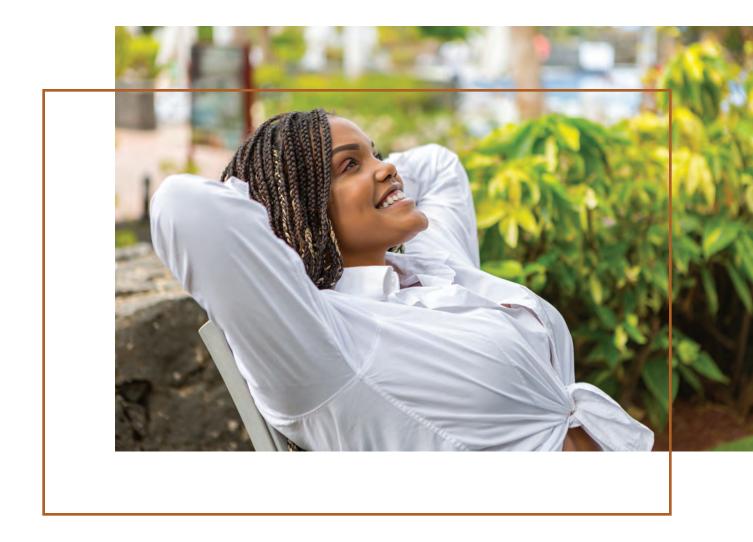
Monoamine Oxidase A (*MAOA*) Gene

Gamma-Aminobutyric Acid (GABA) Transporters, Receptors and Enzymes

Glutamate Decarboxylase 1 (*GAD1*) Gene

How CalmGenic Works

CalmGenic provides stress-relieving and cortisol-lowering herbs, amino acids, and nutrients. These specific compounds manage genes that reduce stress and help regulate the HPA axis for a better stress response immediately and over time. By including a unique profile of nucleotides and peptides, CalmGenic offers synaptic nutrition that improves mood and stress starting at the most basic level and working up.



Key Ingredients

Camellia sinensis (L-Theanine)

Ashwagandha

(Zembrin[®])

Ziziphus spinosa

Sceletium tortuosum

C. sinensis is a shrub native to southeast Asia and is the plant used to make the second most popular drink in the world, green tea. It provides the Herbalomic[™], epigenetic, and antioxidant attributes of green tea due to its high levels of the compound epi-gallo catechin gallate (EGCG). These benefits provided by *C. sinensis* include protecting the body from reactive oxygen species (ROS), preventing and eliminating dysfunctional cells that may lead to cancer, and protecting neurological health.⁹

In a clinical trial, ashwagandha was shown to statistically reduce feelings of stress and anxiety, as well as reduce levels of cortisol upon first waking up. These effects likely occur through modulation of the HPA axis.¹⁰

S. tortuosum is a succulent plant native to South Africa and has traditionally been used as a mood elevator. Preliminary clinical studies show it can inhibit the reuptake of 5-hydroxytryptamine (5-HT), also known as serotonin, and inhibit PDE4 enzyme activity. Together, these effects have been reported to provide synergistic effects in boosting mood and relieving stress.¹¹

Z. spinosa is a small shrub that has been used in traditional Chinese medicine as a sedative. Current research shows that it has powerful benefits for insomnia. It works by activating the GABAergic and serotoninergic systems to help calm the nervous system and induce restful sleep.¹²

Rhodiola rosea (Rosavin, Salidroside)

R. rosea is a promising adaptogen that exerts its effects through various pathways involving the HPA axis, the sympathetic nervous system, and molecular pathways related to stress response. As an adrenal tonic, it manages a healthy response to daily environmental stresses and supports healthy immune system function while promoting a balanced mood. With little to no side effects, it is a great option for supporting mood and energy.^{13,14}

Gamma-aminobutyric acid (GABA)

GABA is an inhibitory neurotransmitter known to help the body balance the excitatory brain processes. By preventing overwhelming stress responses, it helps the body maintain appropriate stress levels and promotes a balanced mood.¹⁵

S-Adenosyl-L-Methionine Tosylate (SAMe) SAMe is a critical molecule known as the 'universal methyl group donor'. One of the three major metabolic pathways that it stimulates is transmethylation, a reaction in which a methyl group, composed of one carbon and three hydrogen atoms, is transferred from the SAMe molecule to a target molecule. This reaction helps manage the levels of neurotransmitters such as serotonin, dopamine, and norepinephrine, and melatonin. Ensuring adequate levels of SAMe are available for these reactions supports proper levels of these neurotransmitters, reducing stress and balancing mood.^{16,17}

Griffonia simplicifoliaG. simplicifolia is an herb bearing nature's
5-hydroxytryptophan (5-HTP), a precursor to serotonin. It
is the plant used most often for commercial extraction of
5-HTP. The components of G. simplicifolia, primarily
5-HTP, interact with tryptophan hydroxylase (TPH)
enzymes involved in serotonin production. Because of this,

G. simplicifolia supplementation may influence the
expression of TPH genes and activity of TPH enzymes,
potentially supporting serotonin levels despite mutations
present in TPH genes. ^{18,19}

Dehydroepiandrosterone
(DHEA)DHEA is the building block of estrogen and testosterone,
and is synthesized in the adrenal glands, gonads, and
brain. Changes in steroid hormones have been shown to
impact mood, sleep, energy, and stress levels. By providing
the proper building blocks for these hormones to be
made, CalmGenic offers a multifaceted approach to
supporting mood, stress, energy, and sleep.²⁰

Mucuna pruriens
(L-DOPA)Vitamin E is a fat-soluble antioxidant that is important for
brain, nerve, blood vessel, heart, liver, skin and immune
health. As part of the AREDS2 formulation, vitamin E
deficiency greatly impairs the function of immune cells
and the immune system as a whole. Supplementation with
vitamin E can improve immune function, especially in
immunocompromised individuals.422

L-Taurine L-Taurine is an amino acid necessary for multiple functions in the body. It has recently been shown to act on GABA receptors, which can help soothe an overactive nervous system. Taurine supplementation has also been reported to improve a depressed mood.²²

Melissa officinalisM. officinalis, an herb also known as lemon balm, calms the
nervous system by modulating GABA receptors and
increasing the available levels of GABA by inhibiting the
activity of GABA-transaminase enzymes that break down
GABA molecules. Additionally, the herb's neuroprotective
effects may involve pathways related to brain-derived
neurotrophic factor (BDNF), a gene associated with
neuronal growth and maintenance.23-25

Tryptophan	Tryptophan is an essential amino acid and a precursor to the neurotransmitter, serotonin. Serotonin helps the body maintain a positive feeling and good mood. Tryptophan can also improve sleep quality. ²⁶
Beta-Alanyl-L-Histidine	Beta-alanyl-l-histidine, commonly known as carnosine, is a dipeptide of the amino acids beta-alanine and histidine, which is highly concentrated in the brain. As a neuroprotectant, it supports healthy brain aging and neurohormone function. ²⁷
Hypericum perforatum	<i>H. perforatum</i> , widely known as St. John's Wort, is an herb long recognized for its ability to support a positive mood and healthy neurological function. The rigorous studies by the German Commission E have cited its ability to help optimize serotonin uptake processes, thereby promoting a balanced mood. ²⁸
Cordyceps militaris	C. militaris is a species of fungus that has recently received attention for its wide variety of health benefits, such as boosting longevity, exercise performance, and mood. It produces a compound known as cordycepin, which is believed to play a role in its ability to modulate serotonin and dopamine levels. ²⁹
Ocimum sanctum	<i>O. sanctum</i> , also known as Holy Basil, is a traditional medicinal herb containing the phytonutrients ocimumoside A and B. These unique phytonutrients have been shown to protect the brain and nervous system as a whole, as well as reduce stress. ^{30,31}

Warnings/Contraindications

CalmGenic should be used with caution by any individual currently being treated with an selective serotonin reuptake inhibitor (SSRIs), monoamine oxidase inhibitors (MAOIs), or other antidepressant medication such as tricyclics, tetracyclics, serotonin antagonist and reuptake inhibitors (SARIs), serotonin and norepinephrine reuptake inhibitors (SNRIs), norepinephrine– dopamine reuptake inhibitor (NDRIs), or opiates that impact the same system. If you are currently taking any of these types of medications, please consult your healthcare provider before using.

It is always recommended that you consult your practitioner prior to adding any new supplement to your regimen if you are pregnant, breastfeeding, experiencing renal failure, undergoing an organ transplant(s), managing diabetes with insulin, or are taking medication(s) for any pre-existing conditions.

Safety

All ingredients are tested before use for:

- Pathogenic microbial contaminants
- Heavy metals and/or chemical contaminants
- Purity

Additional Information

- Gluten Free
- Dairy Free
- Vegan
- No Sugar
- Non-GMO
- cGMP Facility
- No Egg

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