

GABANOL



CLINICAL APPLICATIONS

- Promotes Muscle Relaxation
- Helps Alleviate Exercise-Related Muscle Pain
- Concentrated Blend of Traditional Botanicals to Soothe Muscle Tension

MUSCULOSKELETAL HEALTH

GABANol is a synergistic combination of gamma-aminobutyric acid (GABA), glycine and established traditional botanicals, which serves as a quick response supplement for muscle relaxation. This unique blend of botanicals, amino acids, vitamins and minerals also work to quickly support muscular discomfort. The combination of glycine and GABA act as inhibitory neurotransmitters, which help calm muscles and reduce the activity of the excitatory nervous system that can cause muscle spasms. Together with magnesium, B6 and select botanicals, GABANol serves as an excellent alternative to valerian-based products. One capsule of GABANol includes 250 mg GABA, 225 mg glycine, 200 mg cramp bark and 150 mg Dong quai.

Overview

GABA, the chief inhibitory neurotransmitter in the central nervous system, plays a key role in regulating muscle excitability. Both GABA and glycine act as calmatives for nerve impulses, controlling muscle contractions. GABA also supports the brain, preventing stress-related messages that trigger muscle spasms from reaching motor centers of the brain by occupying their receptor sites. Cramp bark powder has been used historically for achiness associated with exercise or physical activity, and is one of the most effective natural aids for alleviating exercise-related and female hormone-associated muscle discomfort. Dong quai root extract has also been used for centuries in Chinese traditional medicine, to increase relaxation of the smooth muscles. Magnesium and B₆ are known for their immediate effect on muscular relaxation. While other therapies with a similar mechanism may cause dependency when used over time, the natural ingredients in GABANol are non-habit forming and work quickly to ease muscle tension.

GABA[†]

GABA itself is the primary inhibitory neurotransmitter in the brain and regulates other neurotransmissions to prevent overstimulation. One study found that after only 60 minutes of administration, GABA significantly increased alpha brain waves and decreased beta waves compared to water or L-theanine, indicating a significant calming effect on the nervous system. The same study also found GABA to support healthy Ig levels.¹ A randomized, single-blind, placebo-controlled, crossover-designed study found that among 63 adults given capsules containing 100 mg of GABA or a placebo, those who had taken GABA experienced diminished alpha band and beta band brain waves compared with placebo.²

Glycine[†]

Glycine is one of three amino acids needed for the synthesis of creatine, which supplies energy to nerve and muscle cells. Elevated amounts of glycine are found in the muscles, skin and other connective tissues. Glycine is also an inhibitory neurotransmitter, which works much like GABA. Research has shown it supports the induction of sleep and enhances sleep quality.³ It is the primary amino acid that regulates neurotransmission in the brain stem and spinal cord and is a necessary co-factor in the activation of glutamate receptor. This action makes glycine a key component of maintaining nervous system balance and maintaining calm, relaxed muscles.

Cramp Bark[†]

Cramp bark powder has long been used to alleviate smooth muscle discomfort. Studies have confirmed that cramp bark promotes a relaxant effect. Herbalists recommend cramp bark for discomfort of either a congestive or spasmodic nature, which includes discomfort from muscle tension in the low

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EFFICACY
the power of *e*

back and down to the thighs.⁴ An in vitro study found that cramp bark helped ease spasms in smooth muscle.⁵ Cramp bark has also been shown to support gastrointestinal mucosal health.⁶

Dong Quai†

A perennial botanical native to China and Japan, Dong quai is effective at easing post-exercise muscle soreness, and has long been used medicinally for smooth muscle tension. Dong quai contains active ingredients, called coumarins, which dilate blood vessels, balance the central nervous system and increase blood flow. One animal study found Dong quai to significantly increase endurance swimming time and to promote healthy blood sugar, lactate, ammonia and creatine kinase levels in mice (a primary indicator of proper cellular energy function). Dong quai also improved exercise performance and eased exercise induced fatigue in mice.⁷

Vitamin B₆†

Vitamin B₆ is required to convert glutamic acid to GABA in the body. Vitamin B₆ is also a cofactor in many cellular biochemical reactions, including the release of glucose from glycogen and that of amino acid metabolism, including transamination, deamination and decarboxylation. Vitamin B₆ is involved in the electron transport system during ATP production and requires magnesium to become biologically active. The vitamin also supports the use of magnesium within the cell.⁸ It is a key factor in methylation pathway, which is integral in many biochemical processes involving detoxification and cardiovascular, neurological, muscle and bone health. Effective methylation plays a role in the biosynthesis and breakdown of catecholamines and is important in maintaining a positive mental outlook and supporting adrenal health.

Magnesium†

Magnesium, the fourth most abundant mineral in the body, participates in about 300-350 enzymatic reactions in nearly all tissues. Deficiency is common and results from poor dietary intake, poor absorption and excessive losses through urine, stool and perspiration. The mineral is very important for regulating the influx of calcium into the muscle cells. When magnesium is depleted, calcium can remain in the muscle cell area longer, causing muscles to cramp. In a four-week, double-blind, randomized, placebo-controlled trial of 86 healthy pregnant women, at 14-34 weeks gestation, 41 were given 300 mg magnesium chelate and 39 women were given placebo. They found a 50% reduction of muscle cramp frequency in the magnesium group.⁹

Directions

1-2 capsules three times per day or as recommended by your health care professional.

Does Not Contain

Gluten, corn, yeast, artificial colors and flavors.

Cautions

Do not consume this product if you are pregnant or nursing. Caution is advised for those taking blood thinning medication.

Supplement Facts^{v2}

Serving Size 2 Capsules
Servings Per Container 30

2 capsules contain	Amount Per Serving	% Daily Value
Vitamin C (as Ascorbic Acid USP)	40 mg	67%
Vitamin B6 (as Pyridoxine Hydrochloride USP)	50 mg	2,500%
Magnesium (as DiMagnesium Malate)	15 mg	4%
GABA (Gamma Aminobutyric Acid)	250 mg	*
Glycine USP	225 mg	*
Cramp Bark	200 mg	*
Dong Quai Root Extract (Standardized to contain 1% Ligustilide)	150 mg	*

* Daily Value not established

ID# 555060 60 Capsules

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References

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