



Stress-Relax®

100% NATURAL GABA

100 mg · 250 mg

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NPN 80052330  
NPN 80046839

RESEARCH INFORMATION

### Feature summary

Natural Factors Stress-Relax 100% Natural GABA works quickly to help temporarily promote relaxation. Gamma-aminobutyric acid (GABA) is a natural calming agent of the brain, often viewed as the brain's "braking system." When we become overwhelmed with stress, the brain typically responds by producing more GABA or pumping the brakes.

GABA's foremost mechanism of action is increasing the production of alpha brainwaves (associated with a relaxed yet alert state) and decreasing the production of beta brainwaves (associated with nervousness, scattered thoughts, and hyperactivity). This leads to improved relaxation without drowsiness and enhanced mental focus. GABA's presence in the nervous system also helps support cognitive function.

Although everyday stress is a normal part of modern-day living, for some people stress can become overwhelming, which can lead to an assortment of symptoms, including nervous tension, sleep disturbances, and irritability.

Stress-Relax 100% Natural GABA contains naturally sourced Pharma GABA that is produced by *Lentilactobacillus hilgardii*, a beneficial lactic acid bacteria used in the making of the traditional Korean vegetable dish known as kimchi. Clinical studies have shown Pharma GABA's important role in reducing stress, promoting feelings of relaxation, and improving concentration. The convenient chewable tablets are easy to take and fast-acting.

### How it works

Gamma-aminobutyric acid (GABA) is an inhibitory neurotransmitter sometimes called the brain's "braking system" because of its role in calming excitatory nerve signals. Large quantities of GABA are present throughout the central nervous system, where its primary role is to rebalance the ratio of alpha to beta brain waves. It does this by increasing the activity of alpha brain waves associated with a relaxed yet, alert state while decreasing the activity of beta brain waves associated with a racing mind, nervousness, scattered thoughts, and hyperactivity.

When the body is enduring mental or physical stress, the brain typically responds by increasing GABA production. In some cases, the body is not able to produce enough GABA to address high levels of excitatory nerve signals. This can result in nervous tension and make it difficult to relax or fall asleep.

GABA influences how the brain sends and processes information by directly affecting the electrical activity of brain cell membranes. By triggering special brain protein receptors, it can modify how brain connections work, and how the brain learns and adapts to stimuli (Porges et al., 2017).

When taken orally, Pharma GABA is absorbed through the gut and binds to receptors in the peripheral nervous system. This process triggers a relaxation response by the parasympathetic nervous system within minutes.

## Research

More than one in every four Canadians report experiencing high levels of stress most days (Statistics Canada, 2021). Long-term exposure to everyday stress can significantly affect mental and physical health throughout life (Kim & Kim, 2023). Although it is possible to minimize some sources of stress, others are simply unavoidable, making it important to find healthy ways to manage acute stress so as to optimize overall well-being. While everybody experiences some level of stress, many people with anxiety and nervousness do not produce sufficient levels of GABA on their own to effectively manage everyday stress.

Supplemental GABA increases the production of alpha brainwaves as a way of helping the body manage acute stress. Research shows that taking GABA orally has the same effect as when it is produced internally. One such controlled study found that a dose of 100 mg of Pharma GABA induced a state of relaxation and reduced nervous tension in participants more significantly than supplementation with a control or 200 mg of L-theanine (Abdou et al., 2006).

Electroencephalogram (EEG) results showed that GABA acted as a natural relaxant by significantly increasing alpha and decreasing beta waves within 60 minutes of consumption. This not only promoted relaxation but also reduced feelings of nervousness. By measuring the stress marker IgA present in participant saliva, a placebo-controlled study also found that oral supplementation with GABA helped reduce the stress response in participants with a fear of heights while they walked across a suspension bridge (Abdou et al., 2006).

GABA has been established as an effective functional food ingredient in Japan, where it is used as a natural aid for handling stressful events. When faced with a difficult math problem, subjects who consumed chocolate enriched with 28 mg of GABA were able to recover significantly faster from their state of acute psychological stress, as shown by an electrocardiogram of heart rate variability (Nakamura et al., 2009). By reducing stress, GABA can also support mental clarity and performance on cognitive tasks. This was shown through a controlled study where 30 students (nine of whom had chronic fatigue) were administered either 0, 25, or 50 mg of GABA before conducting an arithmetic task. Results showed that students who took 50 mg experienced significantly less psychological fatigue and scored significantly higher on solving the arithmetic task compared to the controls (Kanehira et al., 2011).

GABA plays a crucial role in how our brain neurons code and process information. GABA levels in the frontal cortex of healthy older adults were found to correlate with superior cognitive performance, such as better attention, working memory, verbal memory, naming, and fluency (Porges et al., 2017). A double-blind, placebo-controlled study also found that adults who were supplemented with 200 mg of Pharma GABA daily for 12 weeks improved their cognitive functions involving reasoning, memory, attention, and visual-spatial faculties (Yamatsu et al., 2020).

Everyday stressors are negatively impacting the sleep quality of people in industrialized countries. GABA offers a non-habit-forming way to improve sleep quality by calming a racing mind and helping the body relax quickly after ingestion. A clinical study found that participants who took 100 mg of Pharma GABA 30 minutes before going to bed were able to fall asleep 5.3 minutes faster than the control (Yamatsu et al., 2015).

## Ingredients

**100 mg**

**Each tablet or vegetarian capsule contains:**

Pharma GABA® 80 gamma-aminobutyric acid .....100 mg

**250 mg**

**Each vegetarian capsule contains:**

Pharma GABA® 80 gamma-aminobutyric acid .....250 mg

## Dosage

**100 mg**

**Recommended adult dose:** Take 1–2 capsules or tablets 3 times daily or as directed by a health care practitioner. Consult a health care practitioner for use beyond 4 weeks.

**250 mg**

**Recommended adult dose:** 1–2 capsules daily or as directed by a health care practitioner. Consult a health care practitioner for use beyond 4 weeks.

## Cautions

Consult a health care practitioner prior to use if you are pregnant or breastfeeding. If symptoms persist or worsen, consult a health care practitioner. Consumption with alcohol, other medications or health products with sedative properties is not recommended. Keep out of the reach of children.

## References

- Abdou, A.M., Higashiguchi, S., Horie, K., et al. (2006). Relaxation and immunity enhancement effects of gamma-aminobutyric acid (GABA) administration in humans. *Biofactors*, 26(3), 201-8.
- Kanehira, T., Nakamura, Y., Nakamura, K., et al. (2011). Relieving occupational fatigue by consumption of a beverage containing  $\gamma$ -aminobutyric acid. *J Nutr Sci Vitaminol*, 57(1), 9-15.
- Kim, E.J., & Kim, J.J. (2023). Neurocognitive effects of stress: A metaparadigm perspective. *Mol Psychiatry*, 28(7), 2750-63.
- Nakamura, H., Takishima, T., Kometani, T., et al. (2009) Psychological stress-reducing effect of chocolate enriched with gamma-aminobutyric acid (GABA) in humans: Assessment of stress using heart rate variability and salivary chromogranin A. *Int J Food Sci Nutr*, 60(5), 106-13.
- Natural Medicines Comprehensive Database. (2023). GABA [monograph]. Retrieved from <http://naturalmedicines.therapeuticresearch.com>
- Porges, E.C., Woods, A.J., Edden, R.A., et al. (2017). Frontal gamma-aminobutyric acid concentrations are associated with cognitive performance in older adults. *Biol Psychiatry Cogn Neurosci Neuroimaging*, 2(1), 38-44.
- Statistics Canada. (2021). Canadian social survey. Retrieved from <http://www150.statcan.gc.ca/n1/daily-quotidien/210924/dq210924a-en.htm>
- Yamatsu, A., Yamashita, Y., Isafumi, M., et al. (2015). The improvement of sleep by oral intake of GABA and Apocynum venetum leaf extract. *J Nutr Sci Vitaminol*, 61(2), 182-7.
- Yamatsu, A., Nakamura, U., Saddam, H., et al. (2020). Intake of 200 mg/day of  $\gamma$ -aminobutyric acid (GABA) improves a wide range of cognitive functions—A randomized, double-blind, placebo-controlled parallel-group clinical trial. *JPT*, 48(3), 461-74.