



Stress-Relax[®]

NIGHTTIME MAGNESIUM BISGLYCINATE with Melatonin, GABA & L-Theanine

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RESEARCH INFORMATION

Feature summary

Stress-Relax Nighttime Magnesium Bisglycinate combines magnesium bisglycinate with melatonin, L-theanine, and Pharma GABA[®] to temporarily promote relaxation and improve sleep quality. These naturally calming ingredients provide complementary sleep support that helps speed up the time it takes to fall asleep and increase total sleep time for people experiencing sleep restriction.

Melatonin is the body's natural sleep hormone, produced in the brain each evening when darkness falls. Supplemental magnesium works with the body's natural cycles to safely and effectively reset the biological clock. Pharma GABA is a clinically tested and naturally produced form of the brain compound gamma-aminobutyric acid (GABA). It provides fast-acting relief for nervousness and acute stress by promoting a calm, clear mind and physical relaxation. L-theanine is an amino acid from green tea that calms the mind and temporarily promotes relaxation, while the essential mineral magnesium helps support muscle function. This formula contains 100% of the bisglycinate form of magnesium that is easy on the stomach and does not require stomach acid for absorption.

Nighttime Magnesium Bisglycinate is quickly absorbed by the body. It is available as easy-to-swallow vegetarian capsules and as a delicious, tropical-fruit-flavoured powder gently sweetened with stevia.

How it works

Magnesium is a cofactor in over 300 of the body's enzymatic reactions. Its role in regulating sodium, potassium, and calcium gradients between cells affects muscle relaxation and neuromuscular activity. Inadequate magnesium can lead to muscle tightness, cramping, and spasms, as well as neuromuscular irritability (DiNicolantonio et al., 2018).

GABA is an inhibitory neurotransmitter involved in calming excitatory nerve signals. Pharma GABA is produced by natural fermentation using *Lactobacillus hilgardii*. It binds to receptors in the peripheral nervous system and also triggers areas of the central nervous system involved in stress response and both REM and non-REM sleep (Hepsomali et al., 2020).

Melatonin is a hormone that helps us sleep. It works as part of a complementary cycle with serotonin, enhancing GABA receptor binding that regulates sleep-wake transitions, neuroendocrine rhythms, and body temperature cycles. Melatonin prepares the body for sleep by inducing drowsiness and lowering body temperature (Tordjman et al., 2017).

L-theanine is a free-form amino acid. It stimulates alpha brainwave production, which indicates an awake yet relaxed state. It also contributes to increasing levels of the brain neurotransmitters serotonin and dopamine, is metabolized into GABA, and binds to glutamate receptors to block its excitatory response (Hidese et al., 2019; Wang et al., 2022).

Research

There is a reason why people call magnesium the relaxation mineral. This essential nutrient is needed for hundreds of biochemical processes throughout the body, including muscle contraction and relaxation (DiNicolantonio et al., 2018). Magnesium also plays an important role in regulating the body's stress response. When left unaddressed, chronic emotional and psychological forms of stress can lead to magnesium deficiency (Pickering et al., 2020). Because many common forms of magnesium require stomach acid for absorption, magnesium levels can be compromised in older adults with low stomach acid, as well as in people using antacid medications (Rico et al., 2016).

Everyday stressors can have a negative impact on sleep quality. The body's sleep-wake cycle can also be disrupted by shift work, jet lag, stress, artificial light, aging, and other factors, resulting in insufficient melatonin at bedtime (Vasey et al., 2021). Melatonin has been used for decades to address disrupted sleep schedules and sleep disorders. A meta-analysis of 19 studies demonstrated that participants who took up to 5 mg of melatonin fell asleep significantly faster, slept longer, and had improved sleep quality compared to people taking a placebo. Melatonin did not cause dependence and had minimal side effects (Ferracioli-Oda et al., 2013).

GABA also provides a non-addictive way to improve sleep quality by calming a racing mind and helping the body relax quickly. In a randomized, placebo-controlled study, participants with moderate sleep disorders were supplemented with 100 mg of Pharma GABA, 30 minutes before going to bed, each night for one week. GABA was found to improve the participants' moods when they woke up in the morning. Based on electroencephalography (EEG) recordings, supplementation was also discovered to shorten participants' time to fall asleep by approximately 50% (5 minutes vs. 10 minutes) and increased total non-REM sleep time by 2.2%. Non-REM sleep is a deeper sleep needed to rest both the brain and the body (Yamatsu et al., 2016).

The relaxing effects of L-theanine have been experienced by tea drinkers for thousands of years. This amino acid is able to cross the blood-brain barrier and elicit an effect as quickly as 30 minutes after supplementation. Studies show that L-theanine eases signs of tension and anxiety, such as elevated blood pressure and saliva amylase activity, in people performing stressful activities (Wang et al., 2022). A 128 mg dose of L-theanine was found to offset the acute stimulatory effect of chocolate on the nervous system, indicated by a lower diastolic blood pressure than in participants who ate only chocolate (Montopoli et al., 2015).

A placebo-controlled crossover study found that supplementation with 200 mg of L-theanine daily before bed improved aspects of cognitive health and sleep quality in healthy adults. After four weeks of supplementation, participants experienced fewer stress-related symptoms, fell asleep faster, had lower sleep disturbance, and reduced their need for sleep medication (Hidese et al., 2019). Although the dose of administered L-theanine was higher than what is provided by Nighttime Magnesium Bisglycinate, it was supplemented without other sleep-supportive ingredients.

Ingredients

Each scoop (approx. 4 g) contains:

GABA (gamma-aminobutyric acid)	100 mg
(from 125 mg Pharma GABA® and GABA complex)	
L-theanine	50 mg
Magnesium (bisglycinate)	200 mg
Melatonin (non-animal source)	2.5 mg

Each vegetarian capsule contains:

GABA (gamma-aminobutyric acid)	50 mg
(from 62.5 mg Pharma GABA®)	
L-theanine	25 mg
Magnesium (buffered magnesium bisglycinate (bisglycinate, oxide))	100 mg
Melatonin (non-animal source)	1.25 mg

Dosage

Recommended adult dose: 1–2 scoops dissolved in water, once daily at bedtime, or as directed by a health care practitioner. **Jet lag:** Take at bedtime, while travelling, and at destination until adapted to the new time zone or daily pattern. **All uses:** Consult a health care practitioner for use beyond 4 weeks.

Recommended adult dose: All uses except jet lag: 2 capsules 1 time daily, at or before bedtime, or as directed by a health care practitioner. **Jet lag:** 2 capsules 1 time daily, at bedtime, while travelling, and at destination until adapted to the new time zone or daily pattern, or as directed by a health care practitioner. **All uses:** Consult a health care practitioner for use beyond 4 weeks.

Cautions

Do not drive or use machinery for 5 hours after taking melatonin. **All uses except jet lag:** Consult a health care practitioner if sleeplessness persists for more than 4 weeks (chronic insomnia). **All uses:** Consult a health care practitioner if symptoms persist or worsen. Avoid taking with alcohol or products that cause drowsiness. Consult a health care practitioner prior to use if you are taking steroids or blood thinners, medications for seizure or blood pressure, or medications to suppress the immune system (immunosuppressive medications), to affect mental state, or to increase sedation. Consult a health care practitioner prior to use if you have cardiovascular, immune, liver, or chronic kidney disease, hormonal or seizure disorders, asthma, depression, diabetes, low blood sugar, or migraine. Stop use if allergy occurs or if you experience headache, confusion, or nausea. Some people may experience diarrhea. Do not use this product if you are pregnant or breastfeeding. Keep out of the reach of children.

References

- DiNicolantonio, J.J., O'Keefe, J.H., & Wilson, W. (2018). Subclinical magnesium deficiency: A principal driver of cardiovascular disease and a public health crisis. *Open Heart*, 5(1), e000668.
- Ferracioli-Oda, E., Qawasmi, A., & Bloch, M.H. (2013). Meta-analysis: Melatonin for the treatment of primary sleep disorders. *PLoS One*, 8(5), e63773.
- Hepsomali, P., Groeger, J.A., Nishihira, J., et al. (2020). Effects of oral gamma-aminobutyric acid (GABA) administration on stress and sleep in humans: A systematic review. *Front Neurosci*, 14, 923.
- Hidese, S., Ogawa, S., Ota, M., et al. (2019). Effects of L-theanine administration on stress-related symptoms and cognitive functions in healthy adults: A randomized controlled trial. *Nutrients*, 11(10), 2362.
- Montopoli, M., Stevens, L.C., Smith, C., et al. (2015). The acute electrocortical and blood pressure effects of chocolate. *NeuroRegulation*, 2(1), 3-28.
- Pickering, G., Mazur, A., Trousselard, M., et al. (2020). Magnesium status and stress: The vicious circle concept revisited. *Nutrients*, 12(12), 3672.
- Rico, M., Martínez-Rodríguez, L., Larrosa-Campo, D., et al. (2016). Dilemma in the emergency setting. Hypomagnesemia mimicking acute stroke. *Int Med Case Rep J*, 9, 145-8.
- Tordjman, S., Chokron, S., Delorme, R., et al. (2017). Melatonin: Pharmacology, functions and therapeutic benefits. *Curr Neuropharmacol*, 15(3), 434-43.
- Vasey, C., McBride, J., & Penta, K. (2021). Circadian rhythm dysregulation and restoration: The role of melatonin. *Nutrients*, 13(10), 3480.
- Wang, L., Brennan, M., Li, S., et al. (2022). How does the tea L-theanine buffer stress and anxiety. *Food Sci Hum Wellness*, 11(3), 467-75.
- Yamatsu, A., Yamashita, Y., Pandharipande, T., et al. (2016). Effect of oral γ -aminobutyric acid (GABA) administration on sleep and its absorption in humans. *Food Sci Biotechnol*, 25(2), 547-51.