

# Supports restful sleep and calming brain activity\*

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## WHAT IS SLEEP COMPLEX?

Sleep Complex is a blend of nutrients, botanicals, and neurotransmitter precursors to support calm brain activity and a restful night's sleep.\* Quality sleep is an important prerequisite for optimal athletic performance and recovery.\* For instance, a systematic review of 25 intervention studies of over 225 participants observed that athletes who extended their 7-hour sleep time by just 46 to 113 minutes a night experienced a positive impact on their physical and cognitive performance.<sup>1</sup> Sleep Complex is helpful for those who experience difficulty falling or staying asleep throughout the night.\*

## FORMULA HIGHLIGHTS

Each 2-capsule serving contains the following:

- 3 mg of melatonin to support a normal circadian rhythm\*
- 100 mg of GABA to support calm brain activity\*
- 100 mg of L-theanine to promote relaxation\*
- 100 mg of 5-HTP to promote serotonin and melatonin production\*
- 10 mg of vitamin B6 as pyridoxal-5-phosphate for enhanced bioavailability
- 400 mg of valerian root extract to support restful sleep\*
- 200 mg each of passionflower, lemon balm, and chamomile extracts with targeted amounts of bioactive constituents
- Gluten-free, dairy-free, soy-free, vegan; non-GMO
- NSF Certified for Sport®

## CLINICAL EVIDENCE

### Promotes Relaxation and Calmness\*

Lemon balm and passion flower are two herbs that may help with supporting feelings of calm and relaxation.<sup>2,3</sup> One randomized controlled trial (RCT) on 200 healthy adults found that those who supplemented one time with 500 mg of passion flower prior to a stressful event had reduced feelings of anxiousness.<sup>2</sup> Similarly, lemon balm is an herb that is known for promoting feelings of calmness.\* A double-blind placebo-controlled study of

18 healthy volunteers administered two single servings of either 300 mg or 600 mg of a standardized lemon balm extract, or a placebo, across three separate days. These days were spaced out by a seven-day washout period between each dose to ensure no overlap of effects. Compared to those taking a placebo, the lemon balm group taking the highest potency experienced more feelings of calmness and less feelings of alertness (without decreased brain processing power) when exposed to a 20-minute psychological stressor.<sup>3</sup>



### Supports Sleep Quality, Onset, and Continuity\*

Research shows the combination of herbs, nutrients, and neurotransmitter precursors in Sleep Complex can support better sleep.<sup>4-8</sup> Valerian is widely known for its effects on sleep, and this can be seen in a triple-blind, placebo-controlled study on 100 post-menopausal women with sleep disturbances. Based on the Pittsburgh Sleep Quality Index, 30% of the women taking 540 mg of valerian extract twice a day for four weeks displayed improvements in insomnia compared to only 4% in the placebo group.<sup>5</sup> A meta-analysis of clinical trials (n = 772) concluded that those who supplemented chamomile before bed experienced fewer awakenings at night and improved ease of falling asleep.<sup>6</sup> Melatonin, the primary hormone that plays a key role in regulating the circadian rhythm, may help healthy adults experience less jet lag and insomnia when supplementing in a range of 0.3 to 10 mg/day, as was found in a meta-analysis review of 35 RCTs including 2,356 participants.<sup>9</sup> Additionally, gamma-aminobutyric acid (GABA), is added as it is

a neurotransmitter that plays a role in slowing down brain activity and supports falling and staying asleep.<sup>7</sup>

**Supports Mental Well-Being\***

Stress, anxiety, and a racing mind can impact one’s ability to fall asleep.\* L- theanine is an amino acid that exhibits the ability to calm the mind into an alpha state, which is associated with a calmer, less anxious mind.<sup>8,10</sup> An RCT of 30 individuals who supplemented with 200 mg/day of L-theanine for four weeks experienced improved cognition and less feelings of anxiety compared to those in the placebo group.<sup>8</sup> L-theanine works on the GABA receptors to help calm the mind, and the combination of these two compounds taken together may help to shorten the time it takes to fall asleep more than each compound alone.<sup>11</sup> Vitamin B6 is a cofactor and 5-hydroxytryptophan (5-HTP) is a

precursor to the compounds melatonin and serotonin, which are responsible for sleep and positive mood.<sup>12-14</sup> For this reason, 5-HTP and vitamin B6, as featured in Sleep Complex, may further help to support a positive mood while also supporting healthy sleep.<sup>12-14</sup>

**BENEFITS\***

- Promotes relaxation and calmness<sup>2,3</sup>
- Promotes better sleep, which may include ease of falling asleep and longer sleep time<sup>4-7</sup>
- Supports mental well-being<sup>8,10,12-14</sup>

**HOW TO TAKE**

Sleep Complex is best taken as two capsules 30-60 minutes before bedtime to support sleep quality.





Serving Size 2 capsules Servings Per Container 30			
Amount Per Serving	% Daily Value	Amount Per Serving	% Daily Value
Vitamin B-6 (as Pyridoxal-5-Phosphate)	10 mg 588%	Chamomile Extract ( <i>Matricaria chamomilla</i> )(flower)	200 mg *
Valerian Extract ( <i>Valeriana officinalis</i> )(root) [standardized to contain 0.8% valerenic acid]	400 mg *	<i>gamma</i> -Aminobutyric acid	100 mg *
Passion Flower Extract ( <i>Passiflora incarnata</i> )(aerial part) [standardized to contain 3.5% flavonoids]	200 mg *	L-Theanine	100 mg *
Lemon Balm Extract ( <i>Melissa officinalis</i> )(leaves) [standardized to contain 3% rosmarinic acid]	200 mg *	5-HTP (5-Hydroxytryptophan)	100 mg *
		Melatonin	3 mg *
*Daily Value not established.			

**SUPPORTS A NORMAL CIRCADIAN RHYTHM\***

**PROMOTES RESTFUL SLEEP & RELAXATION \***

**PROMOTE SEROTONIN AND MELATONIN PRODUCTION\***



\*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

**Warning:** If pregnant, lactating, or using a prescription drug, consult your health-care practitioner. Do not take this product if you suffer from an autoimmune disease, depression, diabetes, or any endocrine disorders. Do not use this product while operating a motorized vehicle or heavy machinery. Some of the ingredients in this product may not be suitable to administer along with monoamine oxidase inhibitors (MAOs) selective serotonin reuptake inhibitors (SSRIs), and corticosteroids.

# References

1. Cunha LA, Costa JA, Marques EA, Brito J, Lastella M, Figueiredo P. The impact of sleep interventions on athletic performance: a systematic review. *Sports Med Open*. 2023;9(1):58. doi:10.1186/s40798-023-00599-z
2. da Cunha RS, Amorim KS, Gercina AC, et al. Herbal medicines as anxiolytics prior to third molar surgical extraction: a randomized controlled clinical trial. *Clin Oral Investig*. 2021;25(3):1579-1586. doi:10.1007/s00784-020-03468-1
3. Kennedy DO, Little W, Scholey AB. Attenuation of laboratory-induced stress in humans after acute administration of *Melissa officinalis* (lemon balm). *Psychosom Med*. 2004;66(4):607-613. doi:10.1097/01.psy.0000132877.72833.71
4. Lee J, Jung HY, Lee SI, Choi JH, Kim SG. Effects of *Passiflora incarnata* Linnaeus on polysomnographic sleep parameters in subjects with insomnia disorder: a double-blind randomized placebo-controlled study. *Int Clin Psychopharmacol*. 2020;35(1):29-35. doi:10.1097/YIC.0000000000000291
5. Taavoni S, Ekbatani N, Kashaniyan M, Haghani H. Effect of valerian on sleep quality in postmenopausal women: a randomized placebo-controlled clinical trial. *Menopause*. 2011;18(9):951-955. doi:10.1097/gme.0b013e31820e9acf
6. Kazemi A, Shojaei-Zarghani S, Eskandarzadeh P, Hashempur MH. Effects of chamomile (*Matricaria chamomilla* L.) on sleep: a systematic review and meta-analysis of clinical trials. *Complement Ther Med*. 2024;84:103071. doi:10.1016/j.ctim.2024.103071
7. Byun JI, Shin YY, Chung SE, Shin WC. Safety and efficacy of gamma-aminobutyric acid from fermented rice germ in patients with insomnia symptoms: a randomized, double-blind trial. *J Clin Neurol*. 2018;14(3):291-295. doi:10.3988/jcn.2018.14.3.291
8. Hidese S, Ogawa S, Ota M, et al. Effects of L-theanine administration on stress-related symptoms and cognitive functions in healthy adults: a randomized controlled trial. *Nutrients*. 2019;11(10):2362. doi:10.3390/nu1102362
9. Costello RB, Lentino CV, Boyd CC, et al. The effectiveness of melatonin for promoting healthy sleep: a rapid evidence assessment of the literature. *Nutr J*. 2014;13:106. doi:10.1186/1475-2891-13-106
10. Gomez-Ramirez M, Kelly SP, Montesi JL, Foxe JJ. The effects of L-theanine on alpha-band oscillatory brain activity during a visuo-spatial attention task. *Brain Topogr*. 2009;22(1):44-51. doi:10.1007/s10548-008-0068-z
11. Kim S, Jo K, Hong KB, Han SH, Suh HJ. GABA and L-theanine mixture decreases sleep latency and improves NREM sleep. *Pharm Biol*. 2019;57(1):65-73. doi:10.1080/13880209.2018.1557698
12. Ge L, Luo J, Zhang L, Kang X, Zhang D. Association of pyridoxal 5'-phosphate with sleep-related problems in a general population. *Nutrients*. 2022;14(17):3516. doi:10.3390/nu14173516
13. Field DT, Cracknell RO, Eastwood JR, et al. High-dose vitamin B6 supplementation reduces anxiety and strengthens visual surround suppression. *Hum Psychopharmacol*. 2022;37(6). doi:10.1002/hup.2852
14. Sutanto C, Heng CW, Gan AX, Wang X, Fam J, Kim JE. The impact of 5-hydroxytryptophan supplementation on sleep quality of older adults in Singapore: a randomized controlled trial. *Curr Dev Nutr*. 2021;5:372. doi:10.1093/cdn/nzab037\_082