

Amantilla™

Applications

- Daily Stress Support
- Relax/Sleep Support



Introduction

NutraMedix Amantilla™ is a hydro-ethanol extract made from **valerian root** (*Valeriana officinalis*), which belongs to the Caprifoliaceae family.¹ Various species of valerian are used for relaxation, sleep support, and stress management in the traditional health practices of China, India, and the Middle East.² Valerian root contains monoterpenes such as borneol; sesquiterpenes such as valerenal and valerenic acid; valepotriates such as valtrate; alkaloids such as actinidine; flavonoids such as linarin; minerals such as copper, zinc, and manganese; lignans; amino acids; and small amounts of GABA.^{1,3-5} Valerian root and its constituent valerenic acid may act as a GABA_A agonist as well as a partial 5-hydroxytryptamine (5-HT_{5a}) agonist.^{2,6-8} It may also act as an adenosine A₁ receptor agonist.⁵ Activity at these receptors may account for valerian root's role in the support of healthy relaxation, sleep, and stress management.

NutraMedix Amantilla is made at our U.S. manufacturing facility using a specialized proprietary extraction process that optimizes the constituents of the herbs in their original, unprocessed state to obtain broad-spectrum concentration. Because our extracts are made in our own facility, we control all aspects of quality, including stringent ID testing, microbial testing, and heavy metal testing. NutraMedix rigorously follows current good manufacturing practices (cGMP), as do our suppliers.

Relax/Sleep Support

According to a recent systematic review and meta-analysis of human studies, **valerian root** (*V. officinalis*) may help support normal relaxation and healthy sleep during times of occasional sleeplessness.⁵ It may also help support sleep through skeletal muscle relaxation,⁸ as well as smooth muscle relaxation.⁹ In a mouse study, researchers found that valerian root helped support skeletal muscle relaxation while maintaining normal endurance and healthy neuromuscular tone, suggesting that valerian root may assist with sleep support without the side effects typical of other treatments.⁸

Valerian root (*V. officinalis*) may help support both quality and quantity of sleep, with fewer nighttime awakenings.¹⁰ It may also help support a normal sleep onset.⁴ Some of valerian root's constituents, including the flavonoid linarin and the sesquiterpene valerenic acid, may help support calm relaxation and healthy sleep.³ Research suggests that blood levels of valerian root peak from one to two hours after consumption, and because of this, it is recommended to take valerian root 30 minutes to 2 hours before bed for optimal support.¹¹ While single doses may be helpful, studies lasting 14 days or longer showed more consistent support.^{4,12} A key benefit of valerian root for sleep support is that it rarely causes next-day drowsiness when used as recommended.⁴

There are several mechanisms by which **valerian root** may help with sleep support.⁵ Valerian root is a GABA_A receptor agonist, which may help maintain normal central nervous system (CNS) activity; this may facilitate a feeling of calm relaxation.^{2,5,7} Both valerian root and its constituent valerenic acid may act as a partial 5-HT_{5a} agonist to maintain normal serotonergic function, supporting healthy sleep.⁵ As 5-HT_{5a} receptors are prevalent in the suprachiasmatic nucleus (SCN) and other areas of the brain involved with the circadian rhythm, this may be another avenue for potential sleep support.⁵ Lastly, valerian root is known to be a partial adenosine A₁ agonist, which may help support and maintain healthy and restorative slow-wave sleep.⁵

In a randomized, double-blind, placebo-controlled, crossover study, 15 healthy participants were given either **valerian root** extract or a vitamin E placebo. The valerian group experienced decreased intracortical facilitation (ICF) or decreased brain excitability, which may also help support healthy sleep.¹³ Brain excitability returned to the pre-treatment baseline after 6 hours, explaining why morning drowsiness is rare with valerian extract at the recommended dosages.¹³ In a previous randomized, double-blind, placebo-controlled, crossover study, 14 days of valerian root showed more consistent support than a single dose, and researchers concluded that valerian helps maintain healthy slow-wave sleep.¹²

Daily Stress Support

Many of the same receptors that support healthy sleep (GABA_A, 5-HT_{5a}, and adenosine A₁) are also involved in stress management. **Valerian root** (*V. officinalis*) may help support healthy stress management during times of occasional stress through agonist or partial agonist action at these receptors.⁵ One human trial with healthy participants compared the effects of valerian alone, kava alone, and no treatment, on mental stress during cognitive testing. All three groups underwent baseline cognitive testing, then were given either valerian, kava, or no treatment, for 7 days. All three groups then underwent a subsequent session of cognitive testing. While both the valerian and kava groups experienced a decrease in systolic blood pressure after the

intervention, only the valerian group experienced a lower heart rate during mental stress. While neither intervention affected performance, it appeared to mitigate the perception of mental stress by maintaining physiological reactivity within the range of normal.¹⁴

In a randomized, double-blind, placebo-controlled study with 64 mildly stressed volunteers, participants received **valerian root** extract or a placebo three times daily for four weeks. While both groups showed some improvement in stress levels, only the valerian group had significantly better alpha and theta coherence in the brain.¹⁵ The study authors concluded that valerian root may help maintain normal brain connectivity, supporting a sense of healthy calm.¹⁵ There have been similar findings in rodent studies. In a mouse study, valepotriates from valerian root helped support normal stress management,⁵ which a rat study attributed to HPA axis support.¹⁶

Safety and Cautions

Valerian root (*V. officinalis*) is generally well tolerated. Common side effects may include drowsiness, dizziness, and gastrointestinal effects, though some individuals have reported vivid dreams.¹⁷ Because valerian root may help support normal relaxation, it may have additive effects when taken with various sedative substances including, but not limited to, alcohol, benzodiazepines, and CNS depressants.¹⁸⁻²⁰ Because valerian mildly inhibits glucuronidation, it is possible that it may increase levels of drugs metabolized by UGT1A1 and UGT2B7.²¹ While rare, there have been isolated case reports of hepatotoxicity, particularly in higher doses, with multi-ingredient formulas, or concurrent with alcohol abuse.¹⁷ Valerian is considered safe at recommended doses for shorter periods. In extended use, it should be tapered gradually, rather than stopped abruptly, to avoid rebound effects.¹⁷

Safety is not documented in breastfeeding or pregnant women, or in children under age 3, due to insufficient safety research.

*This statement has not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.

References

- ¹Pilerood, S.A. & Prakash, J. (2013). *International Journal of Food, Nutrition, and Dietetics*, 1(1), 1-8.
- ²Gordan, A., Taheri, E., et al. (2019). *Journal of Pharmaceutical Research International*, 292, 1-10.
- ³Fernández, S., Wasowski, C., et al. (2004). *Pharmacology, Biochemistry, and Behavior*, 77(2), 399-404.
- ⁴Hadley, S., & Petry, J.J. (2003). *American Family Physician*, 67(8), 1755-1758.
- ⁵Shinjo, N., Waddell, G., et al. (2020). *Journal of Evidence-Based Integrative Medicine*, 25, 2515690X20967323.
- ⁶Dietz, B.M., Mahady, G.B., et al. (2005). *Brain Research*, 138(2), 191-197.
- ⁷Benke, D., Barberis, A., et al. (2009). *Neuropharmacology*, 56(1), 174-181.
- ⁸Caudal, D., Guinobert, I., et al. (2017). *Journal of Traditional and Complementary Medicine*, 8(2), 335-340.
- ⁹Occhiuto, F., Pino, A., et al. (2009). *The Journal of Pharmacy and Pharmacology*, 61(2), 251-256.
- ¹⁰Abdellah, S.A., Berlin, A., et al. (2019). *Journal of Traditional and Complementary Medicine*, 10(2), 116-123.
- ¹¹Anderson, G.D., Elmer, G.W., et al. (2005). *Phytotherapy Research*, 19(9), 801-803.
- ¹²Donath, F., Quispe, S., et al. (2000). *Pharmacopsychiatry*, 33(2), 47-53.
- ¹³Mineo, L., Concerto, C., et al. (2017). *Neuropsychobiology*, 75(1), 46-51.
- ¹⁴Cropley, M., Cave, Z., et al. (2002). *Phytotherapy Research*, 16(1), 23-27.
- ¹⁵Roh, D., Jung, J.H., et al. (2019). *Phytotherapy Research*, 33(4), 939-948.
- ¹⁶Shi, S.N., Shi, J.L., et al. (2014). *Evidence-based Complementary and Alternative Medicine*, 2014, 325948.
- ¹⁷Natural Medicines. (2022). Valerian [monograph]. <http://naturalmedicines.therapeuticresearch.com>.
- ¹⁸Chen, D., Klesmer, J., et al. (2002). *The American Journal on Addictions*, 11(1), 75-77.
- ¹⁹Donovan, J.L., DeVane, C.L., et al. (2004). *Drug Metabolism and Disposition*, 32(12), 1333-1336.
- ²⁰Houghton P.J. (1999). *The Journal of Pharmacy and Pharmacology*, 51(5), 505-512.
- ²¹Alkharfy, K.M., & Frye, R.F. (2007). *Xenobiotica*, 37(2), 113-123.

NutraMedix

SHAKE WELL BEFORE EACH USE:
Put 15 drops in 4 oz (120mL) of water and wait one minute before drinking. May be taken several times per day as needed, or 30 drops at bedtime, or as directed by your physician. Stop use if adverse reactions develop. Keep out of reach of children.

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AMANTILLA™

FROM VALERIAN

DAILY STRESS SUPPORT †

Dietary Supplement

1 fl oz. (30mL)

Supplement Facts

Serving Size 30 drops	
Servings Per Container 20	
Amount Per Serving	
Valerian root extract	1.5 mL*
*Daily Value not established	

Other ingredients: mineral water, ethanol (20-24%)

NutraMedix

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V384447
Lot #
Exp.