

Kavinace® OS

Target the cellular consequences of sleeplessness with a formulation proven to improve both sleep onset and efficiency after the first serving^{1,2*}

Patient Profile

- ☐ Requires quick relief from sleeplessness
- ☐ Needs help falling asleep
- ☐ Unhealthy lifestyle habits
- ☐ Known or suspected immune activity



L-theanine

- Amino acid that acts as a glutamate receptor antagonist, shown to reduce stress4*
- Modulates the immune response by regulating the secretion of INF-y, IL-2 and IL-10, cytokines shown to increase after strenuous activity and display sleep regulating properties²⁰⁻²³

Astaxanthin

- Carotenoid that can have inhibitory effects on macrophage activity, IL-1 and IL-6 expression, and Nf-kB phosphorylation, impacting chronic and acute immune responses17,18*
- Shown to **improve sleep onset** when taken with zinc6*

Magnesium (as magnesium bisglycinate chelate)

Cofactor for multiple mechanisms in the body including the production of serotonin and acting as a GABA agonist7*

Zinc (as zinc bisglycinate chelate)

- Essential micronutrient cofactor for the antioxidant enzyme superoxide dismutase (SOD)8*
- Zinc deficiency is directly associated with increased biomarkers of oxidative stress and inflammatory cytokines9

Melatonin

- Antioxidant and hormone important for the regulation of the sleep-wake cycle 10*
- Melatonin restores the circadian rhythm dependent activity of mast cells, important for the allergic and inflammatory cascade and immune response to pathogens¹⁹

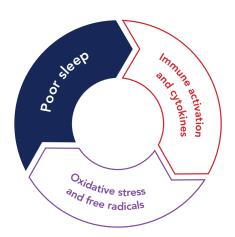




The Science

- The nervous system works with the immune system to regulate the sleep-wake cycle and the immune response^{11,12}
- During daytime activity, the immune system generates free radicals and depletes antioxidants¹³
- During bedtime hours, accumulated free radicals can stimulate the immune system with the adaptive immune system at its most active 12
- Poor sleep has been shown to increase oxidative stress markers, perpetuating the Immune-Sleep Cycle¹³⁻¹⁵

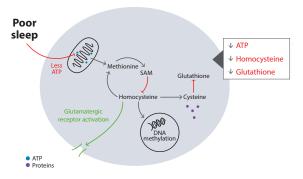
The Immune-Sleep Cycle



*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.

MORE SCIENCE BEHIND KAVINACE®

Figure 1. Cellular Impact of Sleep Deprivation



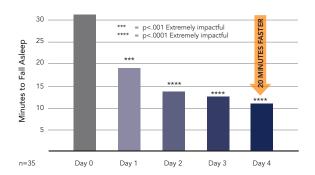
One night of poor sleep changes cellular metabolic function (Figure 1.)1

Metabolic changes worsen the Immune-Sleep Cycle, perpetuating more sleepless nights¹

- Decreased antioxidant capacity increases susceptibility to negative effects of free radicals and oxidative stress1
- Oxidative stress modulates immune regulators like Nf-kB16
- Wake promoting substances (hormones and neurotransmitters) respond to immune activation and further disrupt sleep^{11, 15}

The uniquely formulated blend of Kavinace OS comprehensively intervenes at every portion of the Immune-Sleep Cycle*

Figure 2. Kavinace OS Decreases Sleep Latency



Researched ingredient blend, proven results*

Data gathering participants were prescreened for poor sleep (PSQI), received one serving of Kavinace OS at bedtime for seven days, and submitted a daily sleep diary

- Fall asleep quickly. Reductions in sleep latency were reported after the first serving of Kavinace OS, with ongoing improvement through day four²
- Sleep better. Improvement in sleep efficiency, or total sleep time relative to time in bed, was reported after one serving of Kavinace OS2*

Kavinace OS provides quick relief from sleeplessness at the symptom and cellular level*

NeuroScience supplements undergo rigorous, product specific third-party testing to guarantee label claims of each ingredient and the absence of heavy metals and microbes

Suggested Use: Take 2 capsules at bedtime or as directed by your healthcare provider.



Other ingredients: Vegetable capsule (hypromellose, water), organic rice concentrate, microcrystalline cellulose, dicalcium phosphate, citric acid, and glycine.

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ltem Number	Available Sizes	Serving Size
20053	60 capsule	2 Capsules

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