

Sleep Support



Koshland Pharm
Custom Compounding Pharmacy

Clinical Applications

- Supports Calmness*
- Supports Normal, Uninterrupted Sleep*

Sleep Support is an all-natural herbal blend of *Magnolia officinalis* and *Ziziphus spinosa* formulated to support restful sleep. To achieve maximum effectiveness, this non-addictive formula should be taken for a minimum of seven nights in a row and may be taken indefinitely.*

All Formulas Meet or Exceed cGMP Quality Standards

Discussion

Human Studies A Home Use Test (HUT) performed in 2005 among a target group of 61 men and women using Sleep Support for two weeks yielded very positive results.^[1] Seventy-four percent of respondents used the product according to the directions: Take seven or more capsules during the two-week test period. Of these respondents,

- » 83% said Sleep Support helped them relax*
- » 91% said Sleep Support helped reduce fatigue due to lack of sleep*
- » 91% said Sleep Support helped ensure a good night's sleep*
- » 82% said Sleep Support is an essential item to have on hand*

An open-label, single-center, observational survey that included 295 people (ages 18-87) with sleep difficulties was performed to obtain a subjective evaluation of the tolerability and effectiveness of Sleep Support.^[2] Self-reported sleep difficulties included problems falling asleep, multiple wakings, and next-day tiredness due to a lack of sleep. Patients taking at least one 365 mg capsule of Sleep Support one hour before going to bed every night for at least two weeks experienced the following:

- » 86% considered Sleep Support relaxing*
- » 82.8% said Sleep Support assisted in a restful sleep*
- » 82.8% said Sleep Support was effective in reducing fatigue due to lack of sleep*
- » No significant adverse events

Sleep Support (known as SEDITOL[®]) is a blend of a patented extract of *Magnolia officinalis* bark and a proprietary extract of *Ziziphus spinosa* seed. These herbs have been traditionally used in Asia for qi stagnation, for mild anxiety and nervousness, and to support normal, uninterrupted sleep.*^[3-5]

Magnolia officinalis Magnolia bark is rich in a biphenol compound called honokiol and its isomer magnolol. In experimental animal studies, these compounds have been shown to enhance the activity of gamma-aminobutyric acid (GABA) A receptors and GABA binding, which may help the body cope with the neurologic effects emotions can have on behavior and well-being.^[4,6] Honokiol, administered by intraperitoneal injection in mice, was shown to promote NREM (non-rapid eye movement) sleep by modulating the benzodiazepine site of the GABA (A) receptor.^[5] And, in an experimental animal model of chronic mild stress, a mixture of honokiol and magnolol supported normal levels of 5-hydroxytryptamine (5-HT) and its metabolite 5-hydroxyindoleacetic acid (5-HIAA) in various brain regions. The combination also promoted healthy corticosterone levels and platelet adenylyl cyclase (AC) activity. Researchers suggest that these findings provide a basis for further study into the influence of magnolol and honokiol on the serotonergic system, the HPA (hypothalamic-pituitary-adrenal) axis, and the AC-cAMP pathway in relation to mood and emotional behavior.*^[7]

Ziziphus spinosa A primary use of *Z spinosa* seeds in Traditional Chinese Medicine is to support calmness and help individuals with occasional sleeplessness.^[8,9] In an experimental animal model, saponins and flavonoids extracted from the seeds showed a significant relaxing effect and helped prolong sleeping time.^[9] To investigate potential mechanisms, researchers tested the influence of spinosin—a flavonoid derived from ziziphus seeds—on pentobarbital-induced sleep in mice. They concluded that it potentiated sleep via a serotonergic mechanism.*^[10]

Koetter et al^[3] studied the interactions of magnolia and ziziphus extracts with selected central nervous system receptors in a series of assays. Interactions with the adenosine A1 receptor, dopamine transporter and dopamine D5 receptor (antagonist activity), serotonin receptors (5-HT1B and 5-HT6 antagonist activity), and the GABA benzodiazepine receptor were demonstrated. It is suggested that these findings provide some insight into the combined activity of these extracts.*

***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.**

Distributed By:
Koshland Pharmacy, Inc.
301 Folsom St Suite B
San Francisco, CA 94105

Sleep Support



Supplement Facts

Serving Size: 2 Capsules
Servings Per Container: 30

	Amount Per Serving	%Daily Value
Seditol®† (a proprietary blend of a patented†† extract from <i>Magnolia officinalis</i> (bark) and an extract from <i>Ziziphus spinosa</i> (seed))	730 mg	**

** Daily Value not established.

Other Ingredients: HPMC (capsule), magnesium stearate, stearic acid, microcrystalline cellulose, calcium silicate, and silica.



†Seditol® is a registered trademark of NPI, LLC.
††U.S. Patent No. US 6,814,987

Directions

Take one to two capsules before bedtime, or as directed by your healthcare practitioner.

Consult your healthcare practitioner prior to use. Do not take if pregnant or lactating. Do not take if currently taking any prescription medication or receiving medical treatment without consulting your physician. Keep out of the reach of children. Do not use if tamper seal is damaged.

References

1. Seditol sleep supplement. HUT: Final report. TRG Study #82-05013. Nanuet, NY: Target Research Group; April, 2005. Study on file.
2. LaValle J, Pelletier M, LaValle L, et al. A proprietary blend of Magnolia and Ziziphus extracts assists with sleep: an open-label assessment. Next Pharmaceuticals. http://www.nextpharmaceuticals.com/stage/pdfs/Seditol_Open2008.pdf. Accessed June 18, 2012.
3. Koetter U, Barrett M, Lacher S, et al. Interactions of Magnolia and Ziziphus extracts with selected central nervous system receptors. *J Ethnopharmacol.* 2009 Jul 30;124(3):421-25. [PMID: 19505549]
4. Alexeev M, Grosenbaugh DK, Mott DD, et al. The natural products magnolol and honokiol are positive allosteric modulators of both synaptic and extra-synaptic GABA(A) receptors. *Neuropharmacology.* 2012 Jun;62(8):2507-14. [PMID: 22445602]
5. Qu WM, Yue XF, Sun Y, et al. Honokiol promotes non-rapid eye movement sleep via the benzodiazepine site of the GABA(A) receptor in mice. *Br J Pharmacol.* 2012 Apr 27. doi: 10.1111/j.1476-5381.2012.02010.x. [Epub ahead of print] [PMID: 22537192]
6. Squires RF, Ai J, Witt MR, et al. Honokiol and magnolol increase the number of [3H] muscimol binding sites three-fold in rat forebrain membranes in vitro using a filtration assay, by allosterically increasing the affinities of low-affinity sites. *Neurochem Res.* 1999 Dec;24(12):1593-602. [PMID: 10591411]
7. Xu Q, Yi LT, Pan Y, et al. Antidepressant-like effects of the mixture of honokiol and magnolol from the barks of *Magnolia officinalis* in stressed rodents. *Prog Neuropsychopharmacol Biol Psychiatry.* 2008 Apr 1;32(3):715-25. [PMID: 18093712]
8. Jiang JG, Huang XJ, Chen J, et al. Comparison of the sedative and hypnotic effects of flavonoids, saponins, and polysaccharides extracted from *Semen Ziziphus jujube*. *Nat Prod Res.* 2007 Apr;21(4):310-20. [PMID: 17479419]
9. Peng WH, Hsieh MT, Lee YS, et al. Anxiolytic effect of seed of *Ziziphus jujuba* in mouse models of anxiety. *J Ethnopharmacol.* 2000 Oct;72(3):435-41. [PMID: 10996283]
10. Wang LE, Bai YJ, Shi XR, et al. Spinosin, a C-glycoside flavonoid from *semen Ziziphi Spinozae*, potentiated pentobarbital-induced sleep via the serotonergic system. *Pharmacol Biochem Behav.* 2008 Sep;90(3):399-403. [PMID: 18466960]

Does Not Contain

Wheat, gluten, yeast, soy, animal or dairy products, fish, shellfish, peanuts, tree nuts, egg, ingredients derived from genetically modified organisms (GMOs), artificial colors, artificial sweeteners, or artificial preservatives.

***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.**

Distributed By:
Koshland Pharmacy, Inc.
301 Folsom St Suite B
San Francisco, CA 94105

DRS-103
REV. 06/30/17