Melatonin

(Hypoallergenic)

Time Release Melatonin (1.2 mg) #72230, 60 tablets
ChronoSet (1.3 mg) #71660, 100 capsules
Melatonin (3 mg) # 71930, 120 tablets
S. Gard (20 mg) #71580, 60 capsules

The Possible Benefits of Melatonin, a Dietary Supplement

- Supports the aspects of brain chemistry involved in sleep
- May provide antioxidant activity

Description

Melatonin plays a crucial role in our health and well-being. Health can be thought of as the capacity for maintaining homeostasis, which is the maintenance of a constant internal environment, basic to the efficient functioning of all living systems. The body maintains continual homeostatic control over factors such as temperature, acidity-alkalinity, energy balance, tissue replacement, and antioxidant defenses. These internal factors are continually adjusted and readjusted, in synchrony with the body's clocks, controlled by the pineal gland. Through the secretion of the hormone melatonin, the pineal gland modulates the periodic autonomic functions of the central nervous system.

Melatonin is a solid, lipophilic, hydrophobic substance, also known as N-acetyl-5-methoxytryptamine. It is the principal hormone of the human pineal gland, and can also be found at much lower concentrations in plants. Melatonin is synthesized by the pinealocytes of the pineal gland. The pathway begins with the amino acid L-tryptophan, which is metabolized to 5-hydroxy-tryptophan (5-HTP), then 5-hydroxytryptamine (serotonin), and finally to melatonin. The rate limiting step in the synthesis of melatonin is the N-acetylation of 5-hydroxytryptamine by the enzyme arylalkylamine N-acetyltransferase (AA-NAT).

Melatonin is the primary substance that controls entrainment in circadian rhythms, or patterns of wakefulness and sleep. The pineal is a tiny gland located deep in the brain behind the eyes, which monitors the external environment, integrating this information with the internal environment and producing melatonin to regulate the daily cycle. The pineal has nerves that connect it with the retina of the eye, and the primary melatonin receptor is expressed mainly in the retina. The external stimuli of light and darkness cause the pineal to change the rhythm of the enzyme AA-NAT, which then affects melatonin levels. Through this mechanism, melatonin synthesis is stimulated by darkness and inhibited by light.

Numerous studies suggest that melatonin can be effective for regulation of sleep. Melatonin has been shown to induce sleep in people of all ages. A well-designed study showed that 2 mg daily of melatonin allowed people to replace benzo-diazepine with melatonin, maintaining good sleep quality. Melatonin has been used for menopause related insomnia, jet lag, and by night shift workers and the blind. Studies with menopausal women also show benefits for mood. Low melatonin levels in women may correlate with increased breast cancer risk. Preliminary studies show that melatonin may provide adjunctive nutritional support for those with breast cancer and may enhance the effectiveness of some chemotherapy. It may also support the function of the ear in people with ringing in the ears.

At high doses, melatonin has significant antioxidant activity, including the capacity to inhibit metal ion-catalyzed oxidation processes, specifically the Fenton reaction. Melatonin has also been found to have anti-apoptotic activity in the thymus, as well as in cultured dexamethasone-treated thymocytes, which is a standard model for the study of apoptosis. It is thought to do so by down-regulating the glucocorticoid receptor. Aspirin, other NSAIDs, and beta-blockers may lead to decreased melatonin levels.

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.

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Time Release Melatonin, Item no. 72230

Each tablet contains:	Melatonin	1.2 mg
Other ingredients:	Dicalcium phosphate, cellulose, stearic acid, magnesium stearate, silicon dioxide.	
Suggested use:	As a dietary supplement, 1 to 3 tablets 20 minutes to one hour before bedtime, or as directed by a healthcare practitioner.	

ChronoSet, Melatonin Formula, Item no. 71660

Each capsule contains:	Melatonin	1.3 mg
Other ingredients:	Cellulose, magnesium stearate.	
Suggested use:	As a dietary supplement, 1 or 2 capsules one hour before bedtime, or as directed by a healthcare practitioner.	

Melatonin, Item no. 71930

Each capsule contains:	Melatonin	3 mg
Other ingredients:	Dicalcium phosphate, cellulose, stearic acid, magnesium stearate, silicon dioxide.	
Suggested use:	As a dietary supplement, 1 or 2 tablets one hour before bedtime or as directed by a healthcare practitioner.	

S. Gard, Item no. 71580 (*S. Gard available to healthcare practitioners only.*)

Each capsule contains:	Melatonin	20 mg
Other ingredients:	Cellulose, stearic acid, silicon dioxide.	
Suggested use:	As a dietary supplement, 1 capsule 30 minutes before bedtime, or as directed by a healthcare practitioner.	

WARNING: Melatonin may have a strong sedating effect within 20 minutes of consumption. In rare cases it may affect seasonal affective disorder, depression or have stimulatory effects. Not to be used during the day time. Generally for use at bedtime. Not recommended for children or adolescents, for long-term administration, or for those with a prior history of seizures. Do not use while operating a motor vehicle or other machinery.

Selected References (Full references available upon request)

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