



# Pure Rest™ • •

## Fast-acting melatonin supplement promotes the body's natural sleep and wake cycles\*

Most researchers agree that getting enough sleep is equally important to long-term health as eating a healthy diet and exercising regularly. Unfortunately, millions of individuals suffer from occasional sleeplessness—the incidence of which increases with age. Other lifestyle factors, such as stress or alcohol

consumption, can contribute to poor sleep as well.



Poor sleep results in tiredness, poor concentration, reduced quality of life, compromised immune function, and an increased risk of morbidity and mortality. Sleep deprivation has also been linked with increases in markers of oxidative stress and decreases in levels of antioxidant enzymes (e.g., SOD, glutathione reductase. etc.) in the brain, liver, and heart.

Melatonin is a naturally occurring hormone synthesized in the brain that regulates normal sleep and wake cycles. Melatonin levels naturally start to rise in the evening and remain elevated for most of the night, signaling to our body that it is time to sleep. As melatonin levels rise we become less alert and feel drowsy. USANA's Pure Rest supplement supports the natural increase of melatonin production at night. They are not sleeping pills. When taken at bedtime, Pure Rest supports the body's natural circadian rhythms and has been clinically proven to help promote sleep, which restores the body after daily exposure to free radicals and general wear and tear.\*

## Sleep Is Key to Staying Healthy

There is abundant evidence showing that getting enough guality sleep will not only help people feel energized and be more productive, but it will also increase their odds of living healthier lives. While asleep, the body's cells and tissues have the opportunity to recover from the previous day. Many major restorative functions in the body occur almost entirely during sleep, including tissue repair, muscle growth, and protein synthesis. Additionally, sleep is required to maintain normal brain and immune function.

Those who sleep, on average, less than six hours per night have been shown to be much more likely to be obese and develop abnormal blood glucose levels (a precursor to type 2 diabetes) than those who average seven to eight hours a night. Women who do not get at least six hours of sleep a night are also more likely to have high blood pressure, which could lead to cardiovascular disease over time.

## Antioxidant Support

Sleep is restorative with respect to oxidative stress, and melatonin, by promoting sleep and inactivity, allows the body's natural antioxidant defenses to overcome the oxidative stress that accumulated during the day's activity. Melatonin also acts as a free-radical scavenger and stimulates cellular production and activity of several antioxidant enzyme systems in the body. Additional mechanisms contributing to melatonin's protective functions against oxidative stress involve prevention of certain types of cell damage and free-radical generation during the natural energy production process and promotion of normal electron transport within mitochondria—the cell's power source.\*

#### Melatonin and Immune Function

Adequate amounts of sleep are necessary for healthy immune function. As a supplement that promotes sleep, Pure Rest plays a significant role in keeping the immune system functioning normally. Further, a variety of immune system cells have melatonin receptors and the ability to synthesize melatonin, suggesting its importance in immune cell function. Melatonin supplementation becomes especially important as we age, because daily melatonin production cycles stimulate immune cell synthesis and function, a process that naturally declines as we get older.\*

### Why Pure Rest™?

USANA's ultra-pure, fast-acting Pure Rest supplement is manufactured to the same high standards and carries the same potency quarantee as all tabulated products, so you can feel confident that it is safe and effective. Each great-tasting orangeflavored dissolvable tablet supplies 2 mg of melatonin. Because individual needs vary, USANA scores the tablets so they can easily be broken in half to adjust the dosage as necessary.



#### References

- . Bryant PA, Trinder J, Curtis N. Sick and tired: does sleep have a vital role in the immune system?, 2004. Nature Reviews Immunology 4:457-67.
- Buscemi N, Vandermeer B, Hooton N, Pandya R, Tjosvold L, Hartling L, Vohra S, Klassen TP, Baker G. Efficacy and safety of exogenous melatonin for secondary sleep disorders and sleep disorders accompanying sleep restriction: meta analysis. 2006. BMJ 332:385-93.
- . Edwards BJ, Atkinson G, Waterhouse J, Reilly T, Godfrey R, Budgett R, Use of melatonin in recovery from jet-lag following an eastward flight across 10 time-zones. 2000. Francomics 43:1501-3.
- . Herxheimer A, Petrie KJ. Melatonin for preventing and treating jet lag. 2002. Cochrane Database Syst Rev (2):CD001520.
- Irwin M. McClintick J. Costlow C. Fortner M. White J. Gillin JC. Partial night sleep deprivation reduces natural killer and cellular immune responses in humans, 1996. FASEB 10:643-53.
- . Majde JA, Krueger JM. Links between the innate immune system and sleep. 2005. Journal of Allergy and Clinical Immunology 116(6):1188-98.
- . Opp MR. Sleeping to fuel the immune system; mammalian sleep and resistance to parasites. 2009. BMC Evol Bio 9:8.
- . PJ Morgan, P Barrett, HE Howell, R Helliwell. Melatonin receptors: localization, molecular pharmacology and physiological significance, 1994. Neurochemistry international 24(2):101-46
- · Reiter RJ. Pineal melatonin: cell biology of its synthesis and of its physiological interactions, 1991, Endocr Rev 12(2):151-80.
- · Suhner A, Schlagenhauf P, Johnson R, Tschopp A, Steffen R. Comparative study to determine the optimal melatonin dosage form for the alleviation of jet lag. 1998. Chronobiol 15:655-6
- · Zhdanova IV, Wurtman RJ, Regan MM, Taylor JA, Shi JP, Leclair OU. Melatonin treatment for age-related insomnia. 2001. J Clin Endocrinol Metab 86(10):4727-30.

\*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,