

# Can Melatonin Put Your Chronic Pain to Sleep?

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By A. Rahman Ford, PNN Columnist

Melatonin is popularly known as the sleep hormone. Less known is its [potential to alleviate chronic pain](#) and inflammation.

Melatonin is a natural hormone produced by the pineal gland in the brain. During the day the pineal gland is inactive, but at night it begins to produce melatonin and helps us sleep.

As a supplement, melatonin is widely promoted for its efficacy as a sleep aid. However, its role in reducing inflammation – a major contributor to chronic pain – may be much more important. Many chronic pain conditions are a result of underlying inflammation.

In a recent [Nature article](#), melatonin was called a “master regulator” of inflammation. Several studies have shown that melatonin can regulate activation of the immune system, reducing chronic and acute inflammation.

Research shows that melatonin supplements can [modulate inflammation](#) by acting as powerful antioxidants and free radical scavengers. Uncontrolled free radicals in the body can lead to oxidative stress, which can cause inflammation and culminate in diseases that cause chronic pain.

[There is a large body of evidence](#) that melatonin is a potent antioxidant, even more potent than vitamins C and E. It's been successfully used to treat



Melatonin is also a strong antimicrobial, and [emerging research](#) shows that some chronic inflammatory conditions may be caused by infections. [One study](#) found melatonin effective

fibromyalgia and irritable bowel syndrome, diseases associated with high levels of oxidative stress. in treating certain drug-resistant bacteria such as *Staphylococcus*

*aureus*, *Pseudomonas aeruginosa* and *Acinetobacter baumannii*. [Similar results](#) were found when testing ten different pathogens, including *Escheria coli* and *Salmonella typhinurium*, with melatonin.

## Melatonin and Chronic Pain

A therapeutic role for melatonin in the treatment of painful autoimmune conditions has been theorized. [A 2013 study](#) noted that melatonin plays a role in the pathogenesis of conditions such as multiple sclerosis and systemic lupus. In animal models of these diseases, melatonin supplements were found to have protective effects. [A 2019 review](#) concurred, concluding that melatonin can serve as a new therapeutic target in treating autoimmune diseases.

[A review of the scientific literature on chronic pain syndromes](#) found evidence of melatonin's efficacy as an analgesic in several conditions including fibromyalgia, irritable bowel syndrome and chronic back pain. Studies also showed melatonin's effectiveness in treating cluster headaches and tension headaches.

[A small clinical trial](#) of 63 females with fibromyalgia found that melatonin, alone or in combination with the antidepressant amitriptyline, significantly reduced pain when compared to amitriptyline use alone. The authors concluded that the melatonin treatment had a direct effect on the regulation of pain.

There has been some evidence that melatonin supplements can help reduce lower back pain. [In a 2015 study](#), researchers found a significant reduction in pain intensity during movement and at rest in patients with back pain.

Melatonin has also been successful in treating migraines. In [an open-labeled clinical trial](#) of 34 patients suffering from migraine, 30 mg of melatonin given 30 minutes before bedtime was found

to reduce headache intensity as well as frequency and duration, with significant clinical improvement after one month.

Although the scientific evidence is only slowly emerging, melatonin is a widely-available, inexpensive and safe supplement that may aid you in your fight against chronic pain.