

# **Can Valerian Root Help You Sleep Better?**

Analysis by Dr. Joseph Mercola

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#### **STORY AT-A-GLANCE**

- > Valerian root has a sedative effect and has a long history of use to promote relaxation and sleep. Studies show it helps improve the speed at which you fall asleep, depth of sleep and sleep quality
- > Melatonin is another helpful sleep aid, with lower doses being more effective than larger ones
- > For chronic insomnia, you need to address foundational causes. Get bright sun exposure during the day, avoid excessive amounts of light and blue light at night, and avoid electromagnetic fields

#### Editor's Note: This article is a reprint. It was originally published May 4, 2018.

Insomnia is defined as a medical condition involving difficulty falling asleep or staying asleep through the night. While aggravating in and of itself, insomnia can also lead to or exacerbate many other health problems, ranging from fatigue and an increased risk of accidents to a heightened risk of diabetes and cancer.

According to the latest estimates, insomnia may affect upward of 70 million American adults, with men reporting a higher incidence than women.<sup>1</sup>

According to the U.S. Centers for Disease Control and Prevention (CDC), more than onethird of American adults fail to get at least seven hours of sleep on a regular basis,<sup>2</sup> which is associated with an increased risk of chronic ill health and mental distress. As noted by Dr. Wayne Giles, director of CDC's Division of Population Health:<sup>3</sup> "As a nation we are not getting enough sleep. Lifestyle changes such as going to bed at the same time each night; rising at the same time each morning; and turning off or removing televisions, computers, mobile devices from the bedroom, can help people get the healthy sleep they need."

Another really crucial lifestyle aspect that can have a profound impact on your ability to sleep is sunlight and artificial light exposure during the day and night. Getting appropriate light exposure at the appropriate time of day — which I'll discuss further below — is perhaps one of the most important factors that needs to be addressed if you're having trouble sleeping.

One of the worst things you can do is reach for a sleeping pill. That said, certain natural supplements may be helpful as a temporary fix while you address the root causes. Here, I'll review a couple of supplements known for their beneficial influence on sleep.

### Valerian Root – Nature's Valium

Frequently referred to as "nature's Valium," valerian root (Valeriana officinalis) has a sedative effect and has been used in traditional medicine to promote relaxation and sleep for at least 2,000 years. Some of the sedating compounds in valerian root include:

- Valerenic acid As noted by Authority Nutrition,<sup>4</sup> stress can lower your levels of gamma-aminobutyric acid (GABA), which in turn has been linked to anxiety and impaired, poor quality sleep. The valerenic acid in valerian root has been shown to inhibit breakdown of GABA, resulting in greater calm and relaxation. Valium and Xanax work in similar ways.
- Isovaleric acid, which helps prevent involuntary muscle contractions. Its action is similar to valproic acid, used to treat epilepsy
- · Hesperidin, an antioxidant with sedative properties
- · Linarin, an antioxidant with sedative properties

Valerian has also been shown to help maintain serotonin levels in the brain, which has a mood stabilizing effect. In fact, a number of studies have noted valerian root (sometimes in combination with other herbs, such as lemon balm), can be useful for anxiety brought on by acute or chronic stress.

Studies have also demonstrated its usefulness for hyperactivity, generalized anxiety disorder and obsessive-compulsive disorder. However, too high a dose can have the converse effect, increasing anxiety. In one study, anxiety was increased when the highest dose, 1,800 milligrams (mg), was administered.<sup>5</sup>

## Valerian May Improve Sleep

Valerian is one of the most commonly used herbal remedies for insomnia. Studies have found it helps improve<sup>6</sup> the speed at which you fall asleep, depth of sleep (achieving deep sleep 36% faster<sup>7</sup>), and overall quality of sleep. Bear in mind, however, that herbs can affect different people in different ways, and 1 in 10 people actually tend to feel energized by valerian root, which may impede sleep. If you notice this tendency, clearly valerian is not a good sleep aid for you.

Higher dosages can also have this reverse effect, so always start with a minimal dose, and use the lowest dose needed to achieve the desired effect. Typical dosages used in studies range between 400 mg and 900 mg, taken anywhere from 30 minutes to two hours before bed.

A 2011 study,<sup>8</sup> which focused on post-menopausal women, found 30% of participants experienced improved sleep quality after taking 530 mg of valerian twice a day for four weeks. An earlier study,<sup>9</sup> published in 2001, also found that people who are regularly kept awake at night, plagued by thoughts of work deadlines, relationship problems or other stressful life events might find relief from either valerian or kava.

In that study, adults who had suffered from stress-induced insomnia for over 15 years first received 120 mg daily of kava for six weeks. Then, after two weeks off treatment, they received 600 mg of valerian daily for another 6 weeks.

Overall, participants reported that both herbs significantly relieved their symptoms of stress and insomnia, and while the majority, 58%, reported no side effects from either treatment, 16% reported vivid dreams after taking valerian and 12% experienced dizziness with kava.

In a 1989 study,<sup>10</sup> 44% of participants reported "perfect" sleep and 89% reported improved sleep after taking a 400 mg of a valerian preparation called Valerina Natt.

## **Side Effects and Contraindications**

Importantly, studies have not found any serious adverse effects from valerian, although some users report headache, stomach ache, irregular heartbeat or dizziness.<sup>11,12</sup> Unlike sleeping pills, when used as directed, valerian will not adversely affect your reaction time, alertness or concentration the following day.

That said, avoid valerian if you're on any kind of sedatives (either drugs or natural herbs or supplements with sedative effects), narcotics, antidepressants or anti-seizure medication. Also, do not take it with alcohol, and do not drive or use machinery within several hours of taking valerian. Valerian may also be contraindicated if you are pregnant or have liver problems, and should not be given to children under the age of 3.

## **Melatonin May Be an Even Better Option**

I personally believe melatonin is one of the best options available, as far as supplemental sleep aids are concerned. Melatonin is a hormone produced by your pineal gland, which is affected by light and dark.

At night, when it gets dark, your pineal gland begins producing melatonin, which makes you feel sleepy. (Melatonin also acts as an antioxidant and regulator of mitochondrial functions,<sup>13</sup> which is why chronic sleep problems can raise your risk of disease,<sup>14</sup> including cancer<sup>15</sup>). When functioning normally, your melatonin levels will remain elevated for about 12 hours (usually between 9 p.m. and 9 a.m.). Then, as the sun rises, your pineal gland typically stops producing melatonin and the levels in your blood decrease, signaling it's time to wake up.

The pineal gland's sensitivity to light explains why LED lights and electronics should be filtered or avoided at least an hour or two before bed, and why something as simple as turning on a light in the middle of the night to go to the bathroom can interfere with your sleep for the rest of the night.

Interestingly enough, studies have shown lower doses of melatonin are more effective, so do not make the mistake of thinking that more is better. You can start with as little as 0.25 mg of melatonin and work your way up in quarter-milligram increments from there until you get the desired effect.

As with valerian, too high a dose can have the reverse effect, making it more difficult to fall and stay asleep. Still, even melatonin is only a short-term solution. The best option if you regularly have trouble sleeping is to try to find out the root cause of your insomnia. More often than not, the trouble can be traced back to insufficient sunlight exposure during the day and inappropriate and/or excessive artificial lighting at night.

## To Sleep Well, Mind Your 24-Hour Light Exposure

If you have trouble sleeping at night, be sure to:

• Get bright sunlight exposure during the day, as this helps "set" your internal body clock or circadian rhythm. Your body requires exposure to bright daylight, especially in the early morning, to produce healthy amounts of melatonin each night.

Artificial indoor lighting is several magnitudes lower than daylight, so there's really no substitute for spending at least 15 to 30 minutes outdoors at some point between 9 a.m. and noon, ideally without sunglasses or regular glasses on.  Avoid or filter blue light sources in the evening, such as LED lighting, fluorescent lighting and electronic screens, as blue light suppresses melatonin production, thereby impeding your ability to fall asleep and reducing sleep quality.<sup>16</sup> You can mitigate the negative impact of artificial lights and electronic screens by wearing blue-blocking glasses.

I now put on my red-colored glasses as soon as the sun sets, as they also filter out yellow and green, which can also disturb melatonin production. I use \$12.99 red laser eye protection safety glasses from Amazon.<sup>17</sup> I only wear them after sunset. If I need to shield myself from blue light before sunset I use amber-colored glasses.

Historically, the only light source our ancient ancestors had at night was fire, which has virtually no blue or green light. Even moonlight and starlight is a form of solar (i.e., a form of fire) radiation, and while there is some blue there, it is greatly diminished and nowhere near that of a fluorescent or LED light bulb, or your computer or TV screen.

Exposure to these blue light frequencies after sunset virtually assures that you will lower your melatonin and melanopsin levels. It also increases your risk of blindness from macular degeneration.

 Sleep in total darkness — My rule of thumb is, if you can see your hand in front of your face, then there is too much light for optimal sleep. If you find blackout shades too costly, you could just wear a well-fitting sleep mask to prevent stray light from filtering through your eyelids. It is not as good, though, as your skin has some sensitivity to light, so strive for complete darkness whenever possible.

### **Electromagnetic Fields Can Also Impair Sleep**

Aside from getting the correct kind of light exposure during the day and avoiding excessive amounts of light and blue light at night, it's also important to address the electromagnetic field (EMF) emitted from wiring and electronic devices.

While blue light at night reduces your melatonin secretion and therefore antioxidant protection for your mitochondrial function, EMF from electronic devices not only impairs melatonin secretion, it also harms your mitochondria by producing oxidative damage. Thus, your computer, cellphone and other electronic devices may impair sleep and damage your health in more ways than one.

Cancer is one major concern of EMF exposure,<sup>18,19,20</sup> as mitochondrial damage lays the foundation for future cancer development. DNA damage triggered by EMF also leads to changes in cellular function and premature cell death. In 2011, the World Health Organization actually classified cellphone radiation as a 2B carcinogen, or "possibly carcinogenic to humans."<sup>21</sup>

EMF also has a detrimental effect on the health of your brain, altering function and potentially fueling dementia. Even though measured EMF from cellphones is considered low, studies have demonstrated it can alter your brain function and activity.<sup>22</sup> EMF from cellphones and Wi-Fi is also linked to changes in brain neurons that affect memory and the ability to learn.<sup>23</sup>

## **EMF-Proofing Your Bedroom**

Eliminating EMF exposure can be tricky business, as most homes are quite literally swimming in electric currents. Still, there are ways to reduce EMF to a smaller or greater degree, depending on how far you're willing to go. Here are some suggestions, ranging from modest to more extreme:

- Avoid running electrical cords underneath your bed.
- One of the most important is to turn off your Wi-Fi at night. Since you don't need internet access while sleeping, this is a simple remedy that most people can implement.
- Move alarm clocks and other electrical devices away from your head, or ideally out of the room. If these devices must be used, keep them as far away from your bed as possible, preferably at least three feet. Cellphone chargers should be kept at least 4

feet away from your bed, while portable phone bases and wireless routers should be kept as far away from your bedroom as possible.

 Avoid sleeping with your head against a wall that contains unshielded electric wiring and/or electric meters, circuit breaker panels, televisions or stereos on the other side. Unfortunately, few communities in the U.S. require wall wiring to be placed in metal-clad conduit. This is primarily done for fire prevention, but it also eliminates most electric fields.

Therefore, more than likely, you are exposed to electric fields that radiate from the wires in the wall at the head of your bed, even if you don't have any electronics on the other side of the wall. The solutions in both instances are to move your bed 3 feet away from the wall, install an EMF protection canopy over your bed, or turn off the power breaker to your bedroom.

• Pull your circuit breaker before bed to kill all power in your house.

### To Sleep Well, Don't Rely on Temporary Fixes

It's important to understand that while herbs are far less problematic than sleeping pills (which fail to live up to their promises while carrying significant health risks), ultimately even these natural supplements are just temporary fixes that don't address the root cause. If you're struggling with insomnia on a regular basis, you are far better off seeking to correct the problem at its foundation, as discussed above.

#### **Sources and References**

- <sup>1</sup> Trend Statistics, Insomnia, August 18, 2016
- <sup>2, 3</sup> CDC.gov February 18, 2016
- <sup>4</sup> Science Direct. Effects of Chronic Mild Stress on GABAergic System. August 26, 2022
- <sup>5</sup> Phytotherapy Research 2006 Feb;20(2):96-102
- <sup>6</sup> Express July 8, 2020
- <sup>7</sup> Am J Med. 2006 Dec; 119(12): 1005–1012
- <sup>8</sup> Menopause 2011 Sep;18(9):951-5
- <sup>9</sup> Phytotherapy Research 2001 Sep;15(6):549-51

- <sup>10</sup> Pharmacology, Biochemistry and Behavior 1989 Apr;32(4):1065-6
- <sup>11</sup> J Complement Integr Med. 2011
- <sup>12</sup> National Center for Complementary and Integrative Health. Valerian
- <sup>13, 14</sup> International Journal of Alzheimer's Disease, 2011; 2011:326320
- <sup>15</sup> Nature Reviews Cancer 2009; 9(12): 886
- <sup>16</sup> Live Science, February 26, 2016
- <sup>17</sup> Amazon.com, HDE Laser Eye Protection Safety Glasses for Red and UV Lasers
- <sup>18</sup> US National Toxicology Program May 19, 2016
- <sup>19</sup> Bulletin of the World Health Organization, 1999; 77(11):906
- <sup>20</sup> British Journal of Cancer 2010; 103(7):1128
- <sup>21</sup> World Health Organization, Reviewed October 2014
- <sup>22</sup> Environmental Working Group, August 27, 2013
- <sup>23</sup> Biomol Ther (Seoul). 2019 May; 27(3): 265-275