

Melatonin

Melatonin is a natural hormone that sets your internal clock. Its levels rise in the dark and fall with light. The best way to get melatonin is to use your own – the one your brain makes in the darkness. Even a small nightlight can shut it off, so sleeping in a pitch dark room can help. It's actually the blue wavelengths of light that shut down melatonin, and blue-light blocking lenses or yellow-tinted bulbs that can improve sleep:

moodtreatmentcenter.com/bluelight.pdf

Melatonin also plays a role in metabolism, and it reduces weight gain on antipsychotic medications. Part of the reason metabolism slows as we age is that melatonin production declines. This is also why sleep worsens. Zinc and magnesium enhance melatonin production and can be taken to improve sleep:

Zinc 11.25mg and Magnesium 225mg nightly, or as close to these doses as you can find.

Those work particularly well in the elderly and can be taken with melatonin or on their own.

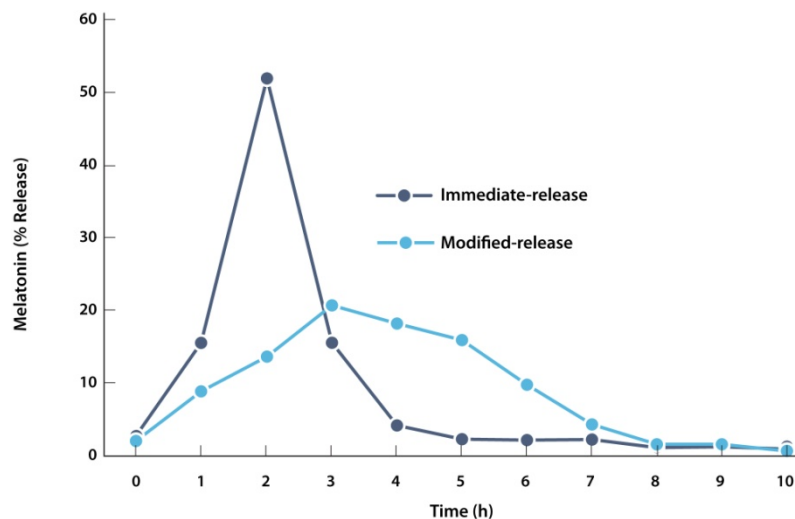
Melatonin can be taken in pill form, though there is controversy about the quality of the ingredients – a study of over-the-counter preparations found that most had much more or less melatonin than advertised. Melatonin's main benefits are in the elderly, in people with blindness or neurologic problems (e.g. autism, dementia, parkinson's, and mental retardation), and in shift-workers, "night owls", or during jet lag. Otherwise, melatonin's sleep benefits are mild. People fall asleep 4 minutes earlier and sleep 12 minutes longer on average.

Part of the reason it doesn't work so great is that it leaves the body quickly. A sustained-release form may be better (e.g. REMFresh, Dr. Wurtman's).

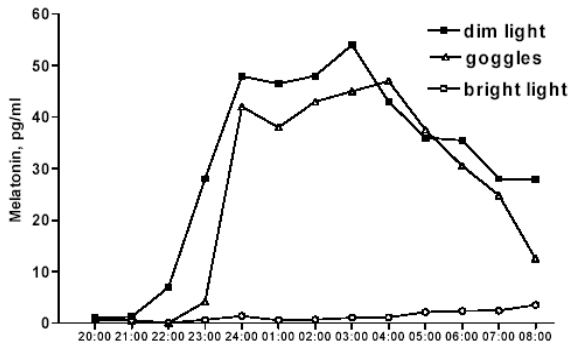
Melatonin has many other medical uses described below. There are also two medications that work through melatonin: ramelteon (Rozerem, a sleep aid), and agomelatine (an antidepressant available in Europe).

How to Take It

- **Insomnia:** 0.2-5 mg at bedtime as needed. Lower doses (0.2-1mg) may be more effective, especially in sustained-release form taken few hours before bedtime (Melatonin SR from remfresh.com or Dr. Wurtman's on Amazon).
- **Insomnia in older age:** Melatonin 5mg with zinc 11.25mg and magnesium 225mg nightly (get as close as you can to these doses; see page 3 for product ideas). These vitamins enhance the natural release of melatonin in the brain. Melatonin can also work better when combined with B6 and calcium, available in the *Natrol Advanced Sleep Melatonin*.
- **Prevention of weight-gain** on atypical antipsychotics: 3-5mg/night.
- **Ear-ringing** (tinnitus): 3mg/night.
- **Pain:** Migraines: 2-3mg/night, Cluster headaches: 10mg/night, TMJ-pain: 5mg/night.
- **Nicotine withdrawal:** 0.3 mg orally 3.5 hours after stopping smoking.
- **Depression:** melatonin-SR 3 mg at night combined with buspirone 15 mg daily.
- **Jet lag:** see moodtreatmentcenter.com/jetlag.pdf.



This graph shows blood levels of melatonin after taking the pill. Regular melatonin leaves the body after 2-3 hours, while sustained release lasts 5-7 hours.



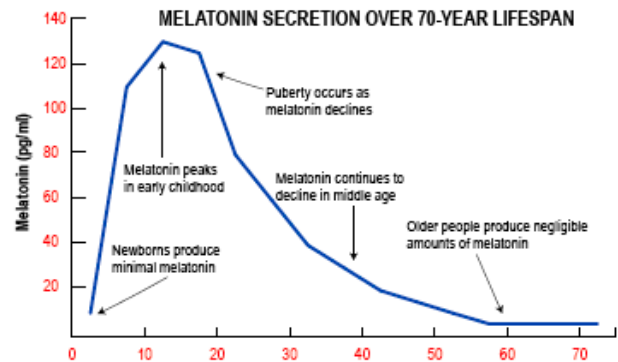
This is a graph of natural melatonin in the brain. The bottom line is close to zero – that’s the effect of light shutting down melatonin production. In a dim-lit room, or with blue-light blocking glasses on, melatonin levels rise naturally after sundown.

Side Effects

Melatonin is generally well-tolerated. Possible side effects include headache, depression (may worsen or improve with melatonin), daytime sleepiness, dizziness, stomach cramps, and irritability.

Warnings

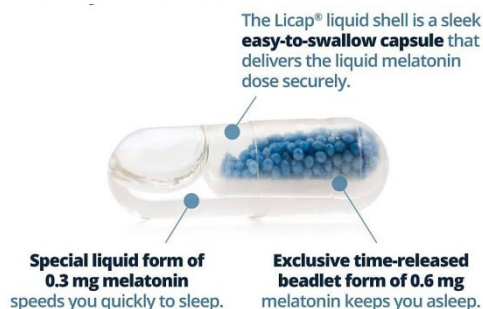
Melatonin may worsen high blood pressure, diabetes, increase the risk for seizures if you have epilepsy (note: when used for antipsychotic weight-gain, melatonin improved blood pressure). Melatonin may be unsafe in pregnancy, breastfeeding and in children (it may interfere with growth hormones). Melatonin might also interfere with ovulation, making it more difficult to become pregnant.



This graph shows the decline in melatonin production with age.

—Chris Aiken, M.D., updated 9/27/18

Product Recommendations



Dr. Wurtman's Sleep Answer Delivers Time-Released, Low-Dose Melatonin (\$13-20/month on Amazon)

This product has several advantages. It combines an instant release and sustained release in one pill. It also gives a low dose, which is medically more in line with what the body needs (doses above 1mg are “supra-physiologic” meaning they are more than what the body is supposed to have).

Consumer Labs tests supplements and recommended the following melatonin brands

CL Top Picks

Low Dose

ConsumerLab's overall **Top Pick** among melatonin supplements is **Swanson Melatonin 1 mg**. Each capsule provides 1 mg of melatonin for 2 cents. Although you can get higher doses of melatonin without spending much more, it's best to take as little melatonin as needed to feel dozy, and just 1 mg can do this for many people (See [What to Consider When Using](#) for more about dosage). In fact, even 0.3 mg may do the trick. If you want this very low dose, our **Top Pick** is *Life Extension Melatonin 300 mcg* (i.e., 0.3 mg) at just 4 cents per vegetarian capsule.

For children, or those who have trouble swallowing pills, a good choice is *Trader Darwin's Chewable Peppermint Flavored Melatonin* (0.5 mg per tablet) at 7 cents per tablet.

If you follow a vegan diet, you can use *Herbatonin 0.3 mg Plant Melatonin*. At 20 cents per vegan capsule, however, it is the most expensive of the very low-dose supplements that we reviewed.

Higher dose

If a low dose doesn't work for you, our **Top Pick** is *Well at Walgreens Quick Dissolve Melatonin 3 mg* costing 4 cents per tablet. Although it may not be necessary, you can get 2 mg more melatonin per pill and save a penny with *H-E-B Super Strength Melatonin 5 mg*.

Timed release

While regular melatonin may help you fall asleep, **timed release formulas** may help you to *stay* asleep for a few hours after you dose off — although not as well as a prescription sleep medicine. If you have trouble with waking during the night, you may want to try this type of formula. Unfortunately, we only tested a very high dose timed release supplement, *Member's Mark® [Sam's Club] Timed Release Melatonin 10 mg*. At just 5 cents per tablet, it is the lowest cost source of melatonin among all products reviewed. However, it would be better to first try a lower dose timed release product before going with this 10 mg product. You can consider two products that passed our tests in 2015 -- *Natrol Melatonin Time Release 5 mg* (6 cents per tablet) and *Source Naturals Timed Release Melatonin 3 mg* (9 cents per tablet).

Some melatonin supplements include **additional ingredients** — often at higher cost. For example, *Pure Encapsulations® Best-Rest Formula* provides 1 mg of melatonin per 2 capsules for 78 cents but includes ingredients believed to have calming effects. One of these is [valerian root extract](#) and *Best-Rest* lists an amount consistent with what is typically used clinically. It also provides [L-theanine](#) (which may relieve stress), although only 25 mg, which is lower than the 200 to 400 mg normally taken *daily*, not on an as needed basis as melatonin typically used. [GABA](#), a neurotransmitter that calms nerves is also in *Best-Rest*, but GABA taken orally does not increase GABA levels in the brain and is not likely to aid sleep. The product also includes [lemon balm](#), [hops](#), passion flower, [chamomile](#), as well as 10 mg of vitamin B6, but it is not clear that B6 provides a sleep benefit. When using a combination formula like this, be aware of potential side effects and drug interactions associated with each ingredient (as discussed in the reviews and articles linked to above).

Combination magnesium-zinc products (from Amazon)

I'm not aware of products with melatonin, magnesium, and zinc in them, but you can get the two minerals together in:

- Rootcha High Potency Magnesium Zinc Complex (take 2 at night, daily cost = \$0.44)
- Puori - M3 High Quality Magnesium, Vitamin B6 11mg, Magnesium 300mg, Zinc, 15mg, Malic Acid 300mg (take 3 at night, daily cost = \$0.63)

Many magnesium-zinc products also have calcium in them, but use caution there as calcium can increase the risk of renal disease, heart disease, and prostate cancer.