

Melatonin ^[1]

Dear Alice,

Are there any benefits to melatonin, and are there known negative side-effects?

Answer

Dear Reader,

Many claims have been made to melatonin's miraculous powers. So far, scientific evidence has revealed melatonin may be beneficial for a few sleep issues such as insomnia, jet lag, and delayed sleep syndrome (when people go to bed, but can't fall asleep until many hours later). It has also been shown to help those struggling with seasonal affective disorder ^[2] and circadian misalignment (a mismatch between the body clock and the environmental clock). However, scientists and medical professionals are still researching its benefits and side effects — so consider any discussion about those tentative, based on what is known thus far. Read on to learn more about melatonin and its known effects!

Melatonin is a hormone produced by the pineal gland in the brain that has a quick acting, sleep-inducing effect (more like mellow-tonin, am I right?). It's a light-sensitive hormone, meaning the absence of light stimulates its secretion. Melatonin may play a role in controlling the body's circadian rhythm, which its its internal clock and sleep cycle. The melatonin you may commonly find in health food stores and pharmacies is a synthetic version of the hormone; you can also purchase a form that combines synthetic and natural (from sheep pineal glands) melatonin. Both types of melatonin mimic the real hormone in chemical composition and behavior. However, some people favor the entirely synthetic form. The partially synthetic form carries some risks of contamination as the natural hormone component is derived from animals. Melatonin can also be found naturally in food sources, such as many types of produce, alcohols like wine and beer, coffee, tea, and seeds. Consumption of melatonin from food sources may increase the circulation of the hormone in the body and provides benefits as an antioxidant ^[3], but they're generally not consumed for the purpose of improving sleep.

Melatonin taken in recommended doses (which will be determined based on the reason for use) between one and two months in duration may have few reported negative side effects ^[4]. Less is known about side effects from long-term use. Similar to a wide array of supplements available

over the counter, manufacturers don't need Food and Drug Administration (FDA) approval before marketing dietary supplements like melatonin. So, exercising caution and asking questions of a trusted health expert can really help consumers make more informed choices. Special caution is advised for those taking medications for:

- Blood-thinning
- Immune system suppression (immunosuppressants)
- Diabetes
- Birth control

List adapted from [Mayo Clinic](#) [5].

As a whole, its side effects still need to be investigated further. In addition to researching its uses for sleep, scientists are currently investigating whether melatonin can play a crucial role in cancer care, the treatment of Alzheimer's disease, and the prevention of cell damage from amyotrophic lateral sclerosis (ALS). Some research has indicated that a sustained-release melatonin may reduce elevated nighttime blood pressure. Keep your eyes peeled for updates and new research regarding additional uses for melatonin!

Just like many medications, people can have different responses to melatonin — some people are more sensitive than others to the supplement. If you're interested in taking melatonin, a health care provider may be able advise you on whether or not it would be of benefit to you, determine if you're at risk for negative side effects, and what the appropriate dose for you may be.

Hope this helps!

Alice!

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