



Melatonin

By Mayo Clinic Staff

Melatonin is a hormone in your body that plays a role in sleep. The production and release of melatonin in the brain is connected to time of day, increasing when it's dark and decreasing when it's light. Melatonin production declines with age.

Melatonin is also available as a supplement, typically as an oral tablet. Most melatonin supplements are made in a lab.

People commonly use melatonin for sleep disorders, such as insomnia and jet lag. Unlike with many sleep medications, you are unlikely to become dependent on melatonin, have a diminished response after repeated use (habituation) or experience a hangover effect.

Research on melatonin use for specific conditions shows:

- **Circadian rhythm sleep disorders in the blind.** Melatonin can help improve these disorders in adults and children.
- **Delayed sleep phase (delayed sleep-wake phase sleep disorder).** In this disorder your sleep pattern is delayed two hours or more from a conventional sleep pattern, causing you to go to sleep later and wake up later. Research shows that melatonin reduces the length of time needed to fall asleep and advances the start of sleep in young adults and children with this condition.
- **Insomnia.** Research suggests that melatonin might provide relief from the inability to fall asleep and stay asleep (insomnia) by slightly improving your total sleep time, sleep quality and how long it takes you to fall asleep.
- **Jet lag.** Evidence shows that melatonin can modestly improve jet lag symptoms, such as alertness.
- **Shift work disorder.** Some research suggests that melatonin might improve daytime sleep quality and duration in people whose jobs require them to work outside the traditional morning to evening schedule.
- **Sleep-wake cycle disturbances.** Melatonin can help treat these disturbances in children with a number of disabilities.

Recent research is also exploring whether melatonin might improve cognitive impairment in people with Alzheimer's disease and prevent cell damage associated with amyotrophic lateral sclerosis (ALS).

Generally safe

Your body likely produces enough melatonin for its general needs. However, evidence suggests that melatonin promotes sleep and is safe for short-term use. Melatonin can be used to treat delayed sleep phase and circadian rhythm sleep disorders in the blind and provide some insomnia relief. Treat melatonin as you would any sleeping pill and use it under your doctor's supervision.

Melatonin taken orally in appropriate amounts is generally safe. Melatonin can cause:

- Headache
- Dizziness
- Nausea
- Drowsiness

Less common melatonin side effects might include short-lasting feelings of depression, mild tremor, mild anxiety, abdominal cramps, irritability, reduced alertness, confusion or disorientation and abnormally low blood pressure (hypotension).

Because melatonin can cause daytime drowsiness, don't drive or use machinery within five hours of taking the supplement.

Don't use melatonin if you have an autoimmune disease.

Possible drug interactions include:

- **Anticoagulants and anti-platelet drugs, herbs and supplements.** These types of drugs, herbs and supplements reduce blood clotting. Combining use of melatonin with them might increase the risk of bleeding.
- **Anticonvulsants.** Melatonin might inhibit the effects of anticonvulsants in neurologically disabled children.
- **Blood pressure drugs.** Melatonin might worsen blood pressure in people taking blood pressure medications.
- **CNS depressants.** Melatonin use with use of these medications might cause an additive sedative effect.
- **Diabetes medications.** Melatonin might affect sugar levels. If you use diabetes medications, use melatonin cautiously.
- **Contraceptive drugs.** Use of contraceptive drugs with melatonin might increase the effects and possible side effects of melatonin.
- **Cytochrome P450 1A2 (CYP1A2) and cytochrome P450 2C19 (CPY2C19) substrates.** Use melatonin cautiously if you take drugs such as diazepam (Valium) and others that are affected by these enzymes.

- **Fluvoxamine (Luvox).** This selective serotonin reuptake inhibitor can increase melatonin levels, causing unwanted excessive drowsiness.
- **Immunosuppressants.** Melatonin can stimulate immune function and interfere with immunosuppressive therapy.
- **Seizure threshold lowering drugs.** Taking melatonin with these drugs might increase the risk of seizures.

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