HEALTH BASICS

Melatonin supplements

Melatonin supplements are lab-made versions of a hormone that helps control sleep timing.

WHAT IT IS
A lab-made version of a hormone that helps time sleep

WHERE IT COMES UP
Sleep problems, jet lag, shift work, and supplement labels

WHY IT MATTERS
Timing and product quality affect benefit and side effects

WHAT IT IS NOT
Not a disease or a diagnosis

WHO TO ASK
A pharmacist or primary care clinician

HOW IT IS CHECKED
Product label and independent quality certification

Overview

Melatonin is a hormone made mainly by the pineal gland in your brain. Your body usually releases more melatonin in the evening as it gets dark. This helps signal that biological night has begun.

Melatonin supplements contain a manufactured version of this hormone. They are sold as tablets, capsules, liquids, gummies, and sprays. Some products release melatonin quickly, while extended-release products release it over several hours.

People may consider melatonin for jet lag, shift work, difficulty falling asleep, or a delayed body clock. These situations are not all the same, and melatonin does not have the same evidence or timing requirements for each one.

In the United States, most melatonin products are regulated as dietary supplements rather than medicines. The Food and Drug Administration (FDA) does not approve dietary supplements for effectiveness before they are sold. Regulation differs in other countries, where melatonin may require a prescription.

How it works

Melatonin helps set the timing of your circadian rhythm, the roughly 24-hour internal clock that influences sleep, alertness, body temperature, and other functions.

Light is an important control signal. Bright light in the evening can delay natural melatonin release, while morning light can help move the body clock earlier. A supplement adds an outside melatonin signal, so the time it is taken can matter as much as the amount.

Melatonin is sometimes described as a sleeping pill, but that is incomplete. It may cause drowsiness, yet its main role is to signal sleep timing. Taking it at the wrong time can shift the body clock in an unwanted direction or cause sleepiness when you need to be alert.

Immediate-release products raise melatonin levels for a shorter period. Extended-release products are designed to maintain levels longer. Products are not interchangeable simply because the front labels show the same amount.

Why it matters for your health

Melatonin may help some people manage jet lag, especially when its timing matches the travel direction and planned sleep period. Incorrect timing may make adjustment harder.

A clinician may also use carefully timed melatonin as part of care for delayed sleep-wake phase disorder. This is a circadian rhythm condition in which sleep and waking occur later than desired. Treatment may also involve planned light exposure and a regular schedule.

For chronic insomnia, evidence of benefit is limited and differs by age, product, and type of sleep problem. An American Academy of Sleep Medicine (AASM) guideline suggested that melatonin should not be used routinely to treat sleep-onset or sleep-maintenance insomnia in adults. Cognitive behavioral therapy for insomnia (CBT-I), a structured treatment that changes sleep-related habits and thought patterns, is generally the preferred first treatment for long-term insomnia.

Children and teenagers should not start melatonin only because it is available without a prescription. Sleep difficulty may relate to schedules, evening light, anxiety, medicines, or a sleep disorder. The AASM advises families to discuss melatonin with a pediatric health professional and to treat it like any other medicine.

Short-term use can cause headache, dizziness, nausea, vivid dreams, or daytime sleepiness. Information about long-term use is more limited, particularly for children, pregnancy, and breastfeeding.

What can go wrong

Poor product consistency: The amount in a supplement may not match its label. Studies of tablets and gummies have found substantial differences between labeled and measured amounts. Some tested products have also contained substances not listed on the label. Independent certification can check identity and manufacturing quality, but it does not prove that a product will improve sleep.

Excess sleepiness: Melatonin can reduce alertness, especially when combined with alcohol, cannabis, sleep medicines, sedating antihistamines, or other substances that cause drowsiness. Do not drive or operate machinery if you feel sleepy or slowed.

Medicine interactions: Melatonin may interact with some blood thinners, seizure medicines, immune-suppressing medicines, and treatments affecting blood pressure or blood sugar. A pharmacist can check your specific medicines and supplements. Tell the surgical team about melatonin before a planned procedure.

Mistimed use: Because melatonin can shift the body clock, taking it at an unsuitable time may worsen jet lag or move sleep later rather than earlier. Timing is especially important when treating a diagnosed circadian rhythm disorder.

Accidental ingestion: Gummies and flavored liquids may look like sweets to a child. Keep them in their original child-resistant container and store them out of sight and reach. If a child takes melatonin unexpectedly in the United States, contact Poison Help promptly at 1-800-222-1222 , even if the child appears well.

Call emergency services for collapse, a seizure, severe breathing difficulty, or if someone cannot be awakened. Swelling of the face or throat with breathing difficulty may indicate a serious allergic reaction and also needs emergency care.

Routine follow-up is appropriate if sleep problems continue, daytime sleepiness affects daily activities, or you regularly need a supplement to sleep. Discuss melatonin before using it during pregnancy or breastfeeding, for a child, or alongside prescription medicines.

What you can do

Before buying or using melatonin:

There is no single melatonin amount or schedule that is right for every purpose. Ask what timing is appropriate for your specific goal, particularly for jet lag, shift work, or a circadian rhythm condition.

If snoring, pauses in breathing, uncomfortable leg sensations, low mood, pain, or another

concern is disrupting sleep, mention that during routine care. Melatonin does not test for or address the cause of these problems.

- Write down the sleep problem you want to address, including its timing
- Keep a one- or two-week record of bedtimes, waking times, naps, and supplement use
- Ask a pharmacist to check for interactions with your medicines
- Check whether the label states immediate-release or extended-release
- Look for independent testing, such as United States Pharmacopeia (USP) Verified certification
- Avoid assuming that a larger labeled amount will work better
- Store the product securely away from children

Common questions

Is melatonin natural?

Your body's melatonin is natural. Supplements usually contain melatonin made in a laboratory. A "natural" label does not establish purity, effectiveness, or safety.

Can melatonin levels be tested?

Blood, urine, and saliva tests can measure melatonin, but they are not routine tests for ordinary sleep difficulty. Specialized sleep clinics and researchers may measure dim-light melatonin onset to assess body-clock timing.

Is melatonin habit-forming?

Melatonin is not known to cause the same physical dependence associated with some prescription sleeping medicines. However, you may come to rely on it as part of your bedtime routine. Ongoing use is worth reviewing if you are unsure it still helps.

Can children take it?

Melatonin is sometimes used for children under professional guidance, including in certain developmental or sleep conditions. Product quality, timing, accidental ingestion, and limited long-term safety information are important concerns. Ask a pediatric clinician before giving it to a child.

Can I take melatonin every night?

Long-term safety information is incomplete, and the answer depends on your age, reason for use, other medicines, and product. If you use it regularly, arrange routine follow-up to review

whether it is helping and whether another sleep treatment would be more suitable.

Does melatonin cure insomnia?

No. Melatonin does not cure insomnia. Persistent insomnia is a sleep disorder that may need assessment and treatments such as CBT-I.

Sources

- National Center for Complementary and Integrative Health. "Melatonin: What You Need To Know."
- Food and Drug Administration. "FDA 101: Dietary Supplements."
- American Academy of Sleep Medicine. "Health Advisory: Melatonin Use in Children and Adolescents."
- Sateia MJ, Buysse DJ, Krystal AD, Neubauer DN, Heald JL. "Clinical Practice Guideline for the Pharmacologic Treatment of Chronic Insomnia in Adults." Journal of Clinical Sleep Medicine . 2017;13(2):307-349.
- Erland LAE, Saxena PK. "Melatonin Natural Health Products and Supplements: Presence of Serotonin and Significant Variability of Melatonin Content." Journal of Clinical Sleep Medicine . 2017;13(2):275-281.
- Cohen PA, Avula B, Wang YH, Katragunta K, Khan I. "Quantity of Melatonin and Cannabidiol in Melatonin Gummies Sold in the United States." JAMA . 2023;329(16):1401-1402.
- Lelak K, Vohra V, Neuman MI, Toce MS, Sethuraman U. "Pediatric Melatonin Ingestions - United States, 2012-2021." Morbidity and Mortality Weekly Report . 2022;71:725-729.
- America's Poison Centers. "Poison Help."