

What You Should Know About Melatonin for Sleep Problems in Children: A Guide for Caregivers

By the child sleep experts from the International Pediatric Sleep Association (IPSA)¹

Melatonin is increasingly used to treat symptoms of insomnia in children (i.e., trouble falling and/or staying asleep). We know how difficult it is when you have a child who is struggling with sleep, and that melatonin is sometimes suggested as a short-term solution. It's common for caregivers to feel unsure about this option, especially regarding your child's health and well-being. While generally considered safe and effective for many children with insomnia, there are a number of things to consider before giving your child melatonin. Our recommendations are aimed at helping you to make safe and healthy choices for your child.

What is melatonin?

Melatonin is a hormone the brain naturally produces that helps set the timing of sleep. It signals our body and brain when to wind down for the night. Melatonin medications contain artificial melatonin that has similar effects. Although it's widely available in some countries, melatonin should always be used carefully, under a healthcare provider's guidance, and should never be viewed as a replacement for good sleep habits or behavioral recommendations.

Helpful tips to consider before using melatonin for your child

- Melatonin is a medication and should be used only with the *advice of and supervision from a medical provider*.
- Before considering melatonin, please have your child *evaluated by a licensed healthcare provider* to determine if there are other possible causes for their insomnia symptoms. For example:
 - Common *sleep environment issues* can contribute to insomnia. These include too much noise or light or a temperature that is too hot or cold in the sleeping space (approximate suggested range depending on the season is 65 to 73 degrees Fahrenheit or 18 to 23 degrees Celsius).
 - *Sleep practices* like evening use of electronics that make children feel more awake, long or late-timed naps, and a bedtime that is too early can interfere with a good night's sleep.
 - All children naturally wake up several times during the night. A child who needs a caregiver present to fall asleep may have difficulty returning to sleep without someone being there.
 - *Mental health issues* like anxiety and depression can contribute to insomnia symptoms.
 - Other *sleep disorders* like restless legs syndrome or sleep apnea or medical causes such as pain and medications may disrupt sleep
- Most sleep challenges can be improved with *behavioral strategies, a healthy sleep environment, consistent sleep schedules, and a regular bedtime routine*.
- *Behavioral strategies and changes should either come first and/or be part of recommendations to use melatonin*. These steps have been proven to be more effective than medications and can help make sleep better without the need for melatonin.
 - Here are links to some good resources for non-drug recommendations to get you started (babysleep.com; sleepforkids.org;

<https://www.healthychildren.org/English/healthy-living/sleep>;
<https://www.sleepfoundation.org/children-and-sleep>;
<https://childmind.org/topics/sleep>; <https://thesleepcharity.org.uk/>).

When *not* to use melatonin

- *Melatonin should not be given to children under 2 years old.* The vast majority of symptoms of difficulty falling and staying asleep in this age group are due to behavioral causes. In addition, there are no studies that show that melatonin is effective or safe in young children.
- Melatonin will *not* help your child with other sleep problems such as sleepwalking, nightmares, and restless sleep.
- Melatonin should *not* be used just to ‘make sleep better’ in children without sleep symptoms.

Recommendations for using melatonin (liquid, tablets, gummies)

- *Always consult with your child’s healthcare provider* when deciding how much melatonin to give.
- *Short-acting melatonin* should only be used for difficulty falling asleep. Don’t try to give it if your child wakes up in the middle of the night. It probably won’t work, and it can make their sleep rhythms worse.
- There’s some evidence to show that *longer-acting forms* of melatonin (available in some countries) may also reduce the number of times children wake up in the night.
- The dose of melatonin should start at the *lowest possible* amount (0.5 mg).
- The dose can be *increased gradually* (for example weekly), by 0.5 mg at a time, with guidance from your child’s healthcare provider.
- Generally *recommended dose ranges* are:
 - Infants (0-2 years): Not recommended.
 - Toddler (2-3 years): Up to 1mg.
 - Preschool (4-5 years): Up to 2 mg.
 - School-Age (6-10 years): Up to 3 mg.
 - Older School-Age and Adolescents: Up to 5 mg

However, individual children may need less than these recommended doses.

- It’s best to give your child melatonin 30 to 60 minutes before bedtime.
- Side effects of melatonin are generally mild and may include:
 - Morning drowsiness,
 - Headaches,
 - Nightmares and vivid dreams
 - Stomach upset
 - Dizziness

If you have any concerns about side effects, speak with your child’s healthcare provider.

- There is little to no evidence that *other ways of administering melatonin* such as diffusers, sprays or lotions are either effective or safe
- Remember that some *over-the-counter medications may contain hidden melatonin* (like nighttime cough syrups for children)

Ways to keep your child safe: Tips for safe storing and using melatonin

- Melatonin is a drug and should *be stored safely, out of reach of children* to avoid accidental ingestion.
- *Don't* transfer melatonin to a non-child-proof container, and particularly never mix melatonin gummies with similar candy-like foods such as fruit snacks.
- In many countries, melatonin is available by prescription only and is therefore assumed to be reliable and accurately labeled.
- In those countries where melatonin is available over-the-counter, the content of products may differ from what the label says. So it's best to only use products that have *melatonin content that is certified* by the standard organization in the country where the product is manufactured (such as the U.S. Pharmacopeia [USP] in the United States)². These certified products are considered to be purest and safest. This also applies to ordering melatonin products on-line.
- Melatonin should be *used for as short a period as possible*. There is very little scientific information about how melatonin affects brain development or physical health when used for long periods of time, especially in younger children. Long-term use (i.e., more than 3-6 months) is not appropriate for most children.
- To avoid unnecessary long-term use, *schedule follow ups with your child's healthcare provider*. Frequent follow up helps you to consider how effective melatonin is for your child, discuss side effects, and consider when a "drug free" break from medication is needed.

¹IPSA is the only world-wide pediatric sleep association. We are a group of sleep healthcare providers and researchers who are committed to helping improve children's sleep and the sleep of their caregivers. Our mission as a non-profit organization is to provide accurate and timely information about all aspects of childhood sleep and sleep disorders for medical and mental health providers, policy makers, and the public. (weblink).

²ConsumerLab.com is a potential resource for independent test results, reviews, ratings, and comparisons of USA-based vitamins, supplements, herb and nutrition products, including melatonin, for consumers and healthcare providers.