

Health Advisory: Melatonin Use in Children and Adolescents

Melatonin is a natural hormone that helps us regulate our own sleep timing. Even though our body makes its melatonin in the brain, some people use extra melatonin to improve their sleep. Melatonin can improve sleep in children whose body clocks are "off schedule" and in some children with developmental problems.^{1,2}

Melatonin use has increased in the last two decades across all ages.³ Melatonin is the second-most popular "natural" product that parents give to their children, next to multivitamins. With this increased use, there are growing reports of melatonin overdose, calls to poison control centers, and emergency room visits for children, even more so during the COVID-19 pandemic.^{4,5}

Parents should talk to a health care professional before giving melatonin or any supplement to children. Be aware that in the U.S., melatonin is considered a "dietary supplement." Melatonin is not under FDA oversight like other over-the-counter (OTC) or prescription medications. Melatonin content in supplements can vary widely. In one study, melatonin ranged from less than one-half to more than four times the amount stated on the label. The most significant variability in melatonin content was in chewable tablets - the form children are most likely to use. Some products even contained other chemicals that need medical prescriptions.

To address the safe use of melatonin in children and teens, we advise that:

- 1. Melatonin should be handled as any other medication and kept out of reach of children.
- 2. Before starting melatonin or any supplement in their children, parents should discuss this decision with a pediatric health care professional. Many sleep problems can be better managed with a change in schedules, habits, or behaviors rather than taking melatonin.
- 3. If melatonin is used, the health care professional can recommend the melatonin dose and timing for the sleep problem. Parents should select a product with the USP Verified Mark to allow for safer use.*

References

- 2. Rosen CL, Aurora RN, Kapur VK, et al. Supporting American Academy of Neurology's new clinical practice guideline on evaluating and managing insomnia in children with autism. J Clin Sleep Med. 2020;16(6):989–990. https://doi.org/10.5664/jcsm.8426
- *A <u>USP Verified Mark</u> indicates that the product was produced in a facility following the Good Manufacturing Practice (GMP) standards. These products meet some product quality control measures, including containing the amount of an ingredient on the label without harmful levels of specific contaminants. However, this is a voluntary program, and only four melatonin products, all with either 3 mg or 5 mg of melatonin, have received the USP Verified Mark.

- 3. Li J, Somers VK, Xu H, Lopez-Jimenez F, Covassin N. Trends in use of melatonin supplements among US adults, 1999-2018. JAMA. 2022;327(5):483–485. https://doi.org/10.1001/jama.2021.23652
- 4. Lelak K, Vohra V, Neuman MI, Toce MS, Sethuraman U. Pediatric melatonin ingestions the United States, 2012–2021. MMWR Morb Mortal Wkly Rep 2022;71:725–729. http://dx.doi.org/10.15585/mmwr.mm7122a1
- 5. Lelak KA, Vohra V, Neuman MI, et al. COVID-19 and pediatric ingestions. Pediatrics. 2021; 148 (1): e2021051001. https://doi.org/10.1542/peds.2021-051001
- 6. U.S. Food and Drug Administration. Office of Dietary Supplement Programs. Information for consumers on using dietary supplements. June 2, 2022. https://www.fda.gov/food/dietary-supplements/information-consumers-using-dietary-supplements
- 7. Erland LA, Saxena PK. Melatonin natural health products and supplements: the presence of serotonin and significant variability of melatonin content. J Clin Sleep Med. 2017;13(2):275–281. https://doi.org/10.5664/jcsm.6462

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