

Not Just Snoring

Teenage Sleep Needs

Melatonin

Middleton Pediatrics Welcomes Lauren Freeman!

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“A good laugh and a long sleep are the best cure in the doctor’s book.” ~Irish Proverb

Not Just Snoring

A large number of children will snore during sleep at one time or another. Snoring occurs when something is blocking the airway during sleep, causing tissues in the throat to vibrate as the airway opens and closes. How much air is passing through and how fastly the tissues are vibrating will determine how loud a child snores. Most of the time snoring only happens on occasion and is harmless. In other cases, snoring can be associated with more serious problems such as sleep apnea.

Sleep apnea occurs when there are small pauses, or “apneas”, in a person’s breathing pattern during sleep. Everyone experiences these pauses, but when apneas become frequent, or prolonged, breathing becomes irregular. This can lead to decreased oxygen levels and disruptions in sleep.

Obstructive sleep apnea occurs when something is blocking the airway, such as enlarged tonsils or

adenoids. Symptoms of obstructive sleep apnea are snoring followed by pauses or gasping, labored breathing during sleep, restless sleep and unusual sleep positions, and sleepiness or behavioral issues during the day. Children may also show other daytime symptoms such as headaches, difficulty waking up, irritability, mouth breathing, and a nasal voice. Other, less common, types of sleep apnea are central apnea (when the brain doesn’t properly maintain breathing during sleep) or mixed apnea (a combination of obstructive and central apnea).

If your child has symptoms of sleep apnea, be sure to talk to your pediatrician. Many children will grow out of sleep apnea, but more severe cases can be treated or managed effectively with medication, monitoring devices, or surgery.

For more information on sleep apnea, visit <http://www.sleepfoundation.org/article/hot-topics/snoring-children>.

Teenage Sleep Needs

It is a known fact that most teenagers do not get enough sleep. This is due to several factors. Because school typically starts before 8am, this makes it challenging for teenagers to sleep the recommended amount of hours. According to the national sleep foundation (NSF), it is normal for teens to go to bed late: only 15 percent of teens fall asleep before 10:45p.m.; five percent hit the sack around 10:45p.m. and the remaining 80 percent go to sleep after 11p.m. This may be due to increased amounts of homework or extracurricular activities running until late hours.

The NSF recommends nine hours of sleep for teenagers. Studies show that teenagers who sleep nine and a half hours have less depression, are late to class less often, and suffer fewer health problems. Additionally, well-rested teen drivers have a reduced chance of being involved in an accident. If adolescents could sleep the recommended amount of time, not only would their overall health improve, but so would their grades. More sleep leads to students being more alert and paying more attention in class, thus leading to better grades.

So, how do you get your teenager to get the recommended amount of sleep? Implementation of good sleep hygiene practices is an important first step! Sleep hygiene refers to the establishment and maintenance of schedules and conditions conducive to healthy, restorative sleep. Tips for good sleep hygiene are outlines below:

Tips for better sleep hygiene:

- Maintain a regular sleep schedule

- 1. Go to bed and wake up at the same time everyday
2. Go to bed early and wake up early
3. Naps, if needed, should be early in the day with consistent time and duration
• Exercise regularly; avoid exercise too close to bedtime
• Avoid stimulants before bed
1. Don't drink caffeine (soft drinks, coffee, black tea, chocolate) after 4p.m.
2. No frightening/stimulating television or stories before bedtime
• Ensure a comfortable sleep environment
1. Eliminate noises
2. Decrease light
3. Maintain a comfortable room temperature
4. Make sure your mattress and pillow are comfortable
• Things to do before bed
1. Light a candle and soak in a warm tub
2. Drink steamed milk or herbal tea such as chamomile

Adequate sleep in teenagers provides many benefits. Adolescents need to look at their personal habits carefully. Changing one or more of them may make the difference in their sleep, consequently improving their overall health.

**Middleton Pediatrics' Favorite Bedtime Stories**

Dr. Middleton: The Chronicles of Narnia

Ginger: Brown Bear, Brown Bear

Liz: Goodnight Moon

Lisa: The Giving Tree

Kelli: The Velveteen Rabbit

Ebony: Green Eggs and Ham

Christine: On the Night You Were Born

Michelle: Time for Bed by Mem Fox

Lauren: Any Sandra Boynton Board Books

**Melatonin**

You have probably heard of melatonin and know that it has something to do with sleep; however, like so many things today, getting accurate information about melatonin can be difficult. Therefore we thought it would be helpful to give a brief overview of this substance, discussing what we know about it, what we don't know yet, and what you need to know.

**WHAT WE KNOW**

Melatonin is a hormone that occurs naturally occurring in humans (and other animals). [A hormone is a chemical made by a gland and travels throughout the body in the bloodstream. Other examples of hormones are adrenalalin, insulin, thyroid hormone, estrogen, and testosterone]. It is produced in a gland in our brain called the pineal gland.

The primary roles (as we currently understand it) for melatonin are 1) sleep and 2) circadian rhythms. Regarding sleep, melatonin seems to be responsible for both initiation of sleep and maintenance of sleep throughout the night. Circadian rhythms ("circadian" literally means "around a day") are daily cycles of activities that occur in living things.

Understanding normal patterns of melatonin secretion can help one further understand sleep and sleep problems that some experience. Melatonin secretion generally starts in the first few months of life (newborns have very minimal melatonin secretion), peaks in the toddler years, and then gradually decreases throughout life. In a given day, melatonin levels are inversely related to light. Therefore, levels start to rise around 7 p.m., peak around 2 a.m., and return to baseline around 7 a.m. Interestingly, having high levels during darkness is true even for nocturnal animals.

If an individual is exposed to environmental light during nighttime hours, their melatonin levels will typically be suppressed. Also, individuals with complete blindness tend to have abnormal melatonin secretion and altered circadian rhythms.

Some medicines and chemicals can suppress melatonin secretion, including caffeine and ethanol. There are very small amounts of melatonin in certain foods, but it does not appear

that these amounts have any significant effects.

**WHAT WE DON'T KNOW**

As with all of medicine, there is undoubtedly much more to be learned about melatonin. Melatonin was only discovered in the last 50 years and is by no means fully understood. A quick internet search for information about melatonin will reveal claims of melatonin providing benefit for an endless number of medical conditions other than sleep problems, claims from curing cancer to anti-aging. As you might imagine, these are unproven.

Additionally there is more to be learned about the possible effects of nighttime use of television, cell phones, iPads, etc on melatonin secretion and how this might affect normal sleep and circadian rhythms.

**WHAT YOU NEED TO KNOW**

Before taking melatonin, the following are a few things you should know:

Melatonin as a supplement is available over-the-counter (i.e. without a prescription). It is interesting that other hormones such as insulin, growth hormone, and thyroid hormone all require a prescription and therefore are only given under the care of a physician, but melatonin is listed as a "dietary supplement". Because of this, melatonin does not require approval from the FDA before entering the market to be sold and does not undergo the same scrutiny in terms of assessing risks and benefits. As has been said in some of our previous newsletters, don't make the mistake of assuming that something is safe because it is over-the-counter. It simply is not true.

In terms of its effectiveness, numerous studies have looked at melatonin use for sleep problems and have shown it to work, especially for problems with sleep onset. Since people tend to take this "on their own" (i.e. without consulting a physician), there are often questions regarding appropriate dosage. If one looks at available formulations or recommended dosages on the internet, a wide range will be found. Generally, a dosage of 0.3 - 1 mg is both effective and safe.

**Middleton Pediatrics Welcomes Lauren Freeman!**

Middleton Pediatrics is thrilled to introduce the newest member of our team! Lauren Freeman is a newly married Orlando native, and has been working in the Pediatric Intensive Care Unit at Florida Hospital. We are excited for her to share her talents as a nurse practitioner with the entire Middleton Pediatrics family!



**Education:** Bachelor's in Nursing from the University of Florida; master's in Nursing from UCF  
**Hobbies:** Being active in my church community, spending time with my husband, reading, running, being outside, traveling  
**Favorite Restaurant:** Ethos  
**Favorite Book:** Through the Gates of Splendor  
**Favorite Vacation Destination:** Pacific Northwest  
**Favorite Dessert:** Anything with a LOT of chocolate!!  
**Life Motto:** Be the change you wish to see in the world.  
**Favorite thing about working at Middleton Pediatrics:** "Everything!! I love the mission, the team, the patients and their families, the environment, all of it! I can't imagine working at a better place."

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