

Sleep Linked to Childhood Obesity

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Infants and young children who don't get enough sleep at night may be more likely to become obese before adulthood, according to a new study released September 2010.

The study finds that even for infants and preschoolers, adequate sleep at night may be just as important as diet and physical activity in preventing childhood obesity.

Obesity has doubled among children aged 2 to 5 and 12 to 19 in the last thirty years, and has tripled among youths between 6 and 11, researchers say.

University of Washington maternal and child health researcher Janice Bell conducted the study to find out if there was a correlation between the higher obesity rates and sleep. She looked at federal data collected on nearly 2,000 children and compared those children who slept 10 hours or more a night with those who slept less. She also looked at how much the children weighed over a five-year period. *(The study appears in the Archives of Pediatrics and Adolescent Medicine.)*

Why can childhood obesity be linked to sleep?

Bell's study didn't examine the reasons why children who sleep less have an increased risk of gaining weight within just a few years, but she does have some theories.

"It may be that children who don't sleep enough at night are too tired to engage in the kind of physical activity that may prevent obesity," Bell says. She adds that another reason may be the result of the relationships between hormones that control appetite and sleep. It's an unfortunate combination adding up to an increased risk of weight gain.

Tired kids may exercise less and eat more, but too little sleep may also have an impact on key hormones that regulate weight and metabolism.

The researchers cautioned that the study had little data to assess diet and physical activity and that weight for children at baseline was obtained from parents' reporting.

Kids Under 5 at Risk...

The findings suggest that there is a critical window prior to age 5 when nighttime sleep may be important for subsequent obesity status, the authors write. "Insufficient nighttime sleep among infants and preschool-aged children appears to be a lasting risk factor for subsequent obesity, while contemporaneous sleep, or the amount of sleep they get at night in the years between 12 and 19, appears to be important to weight status in adolescents."

Napping is no substitute

Conclusions were that napping had no effects on the development of obesity and is not a substitute for sufficient nighttime sleep. Less daytime sleep had little impact on weight at any age, which the researchers chalked up to different physiologic functions of napping versus nighttime sleep.

To help your child get a good nights sleep:

This is also an important message to parents, Bell says, that they must help their children get on a routine of a long and solid night's sleep. Use these guidelines from Dr. Andrea Rinn, a certified sleep specialist at **United Sleep Medicine** to help your children get the sleep they need:

18 months to 3 years: 12-14 hrs/night

3 years to 5 years: 11-13 hrs/night

5 years to 12 years: 10-11 hrs/night

12 years through teens: 9.25 hrs/night

Observe a set bedtime and wake up time. A family schedule should include the daily sleep requirements for particular age groups.

Create a bedtime routine. Engage in at least 15-30 minutes of calm, soothing activities. Curb exercise, computer and telephone use, and do not allow caffeine.

Take TV and electronics out of the bedroom. Studies have shown that children with electronic gadgets and TV's in their rooms experience worse sleep.

Achieve a balanced schedule. Partake only in activities that allow for downtime and sufficient sleep time. Help your students avoid overloaded schedules that can lead to sleep problems.



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Signs of Sleep Apnea in Children

Nighttime Signs:

- Snoring
- Breathing pauses during sleep
- Restless Sleep
- Mouth Breathing
- Difficulty getting up in the morning, even after getting adequate sleep

Daytime Signs:

- Hyperactivity
- Behavioral Problems
- Inattention
- Sleepiness

If you suspect a problem with your child's sleep health please contact the Sleep Specialists at ...



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What is Sleep Apnea?

Sleep apnea is a sleep-associated breathing disorder defined as the cessation of breathing during sleep that lasts for at least 10 seconds. Sleep apnea is characterized by loud snoring and labored breathing. During sleep apnea, oxygen levels in the blood can fall dramatically. These breathing pauses cause awakenings throughout the night, making it impossible for sleep apnea sufferers to enjoy a night of deep, restorative sleep.

The repercussions of sleep apnea and poor sleep for children are vast. When children do not get the sleep they need, they are at risk for health, performance and safety problems and difficulties in school often result. However, sleep deprivation in children is often overlooked or attributed to attention-deficit or behavior disorders.

Surgery for Apnea in Children may not be the answer!

A study in the June 1, 2009 issue of the journal *SLEEP* found that waist circumference and body mass index (BMI) are consistent, independent risk factors for all severity levels of sleep disordered breathing (SDB) in children, suggesting that as with adult SDB, metabolic factors are important risk factors for childhood SDB.

It is often assumed that the primary cause of SDB in children is the presence of large tonsils or adenoids. The study suggests, however, that the causes of SDB in children are more complex, that there may be a systemic influence of obesity, and that adenoid and tonsillectomy may not always be the most effective, first-line treatment.

Risk factors for SDB in children are complex and include metabolic, inflammatory and anatomic factors, according to the research cited in the article. Because SDB in children is not just the outcome of anatomical abnormalities, treatment strategies should consider alternative options, such as weight loss and correction of nasal problems.



To help children maintain a healthy body weight, the National Institutes of Health offer these tips:

- Be supportive. Children know if they are overweight and don't need to be reminded or singled out.
- Plan family activities that involve exercise. Instead of watching TV, go hiking or biking, wash the car or walk around the mall. Offer choices and let your children decide.
- Eat meals together as a family and eat at the table, not in front of the television. Eat slowly and enjoy the food.
- Don't use food as a reward or punishment. Children should not be placed on restrictive diets unless done so by a doctor (for medical reasons). Children need food for growth, development and energy.

Obesity can cause sleep apnea and this can cause changes in a child's brain -- changes that prevent him or her from learning and retaining what is learned. If parents suspect their child has sleep apnea, his/her symptoms should be discussed with a pediatrician or other health care provider such as a sleep specialist at **United Sleep Medicine**.

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