

# SLEEP DISORDERS

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## SYMPTOMS OR BEHAVIORS

- Difficulty waking in the morning
- Falling asleep spontaneously during the day
- Irritability later in the day
- Sleeping for extra long periods on weekends
- Difficulty concentrating
- Impaired memory

## ABOUT THE DISORDER

It's not particularly shocking to think that the amount of sleep an individual gets each night can have an impact on learning, yet it is one of the most overlooked factors affecting student performance in school.

**What is sleep?** Our sleep is controlled by a biological clock that exists deep within our brain. When darkness falls this biological clock, called the suprachiasmatic nucleus (SCN), prompts the pineal gland to produce the hormone melatonin. As the amount of melatonin in the blood increases, we feel drowsy. At the same time the SCN is altering and synchronizing other body functions including blood pressure, body temperature and urine production in preparation for sleep. Near morning, melatonin levels drop and the wake phase begins. This sleep-wake cycle is one of our daily rhythms, called a circadian.

**What happens if we don't get enough sleep?** If we get less sleep than we need, our judgment, reaction time, and other functions begin to be impaired. We have difficulty concentrating, our physical performance declines, and our memory is impaired. If sleep deprivation continues, hallucinations and severe mood swings may develop.

### What are the common sleep disorders and their treatments?

- **Chronic Insomnia:** Most people will suffer from occasional insomnia, the inability to fall asleep. Chronic insomnia is a disorder that tends to increase with age and could be a symptom of some underlying medical disorder. Treatment includes practicing good sleep habits such as having a regular sleep schedule, avoiding caffeine late in the day, and exercising regularly.
- **Sleep Apnea:** is a breathing disorder characterized by brief interruptions of breathing during sleep. Breathing pauses or apneic events can occur about 20-60 times an hour. These frequent interruptions in sleep can lead to excessive daytime sleepiness, headaches and irritability. Sleep apnea can occur in persons of all ages. Those most likely to have it are those who snore loudly (especially if they are also overweight or have high blood pressure), and those who have some physical abnormality in the nose, throat or other part of the upper airway. Sleep apnea may be treated through various methods such as weight loss, surgery (i.e. tonsil and adenoid removal), sleeping on one's side and other methods depending on the cause of the apnea.
- **Restless Legs Syndrome:** Can be found in children, this syndrome is a genetic disorder that causes tingling or prickling sensations in the legs and feet and an urge to move them to get relief. This constant leg movement can lead to insomnia at night. It is treated with medications that affect the neurotransmitter dopamine.
- **Narcolepsy:** is characterized by frequent and overwhelming urges to sleep at various times during the day. It is a chronic neurological condition in which the brain sends inappropriate signals about when to sleep. Narcolepsy can appear in persons of any age, but for the majority of people symptoms first appear between 15-30 years of age. It is often treated with antidepressant and stimulant medications. For some people with narcolepsy, brief, scheduled naps can also be beneficial.



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## EDUCATIONAL IMPLICATIONS

Students who come to school with inadequate sleep can experience significant difficulties. They may have difficulty with concentration and memory, be unable to control emotional responses: leading to more arguments, emotional outbursts, and depression, and experience extreme drowsiness and an overwhelming need to sleep. In addition, students may note a decline in physical coordination and ability.

## INSTRUCTIONAL STRATEGIES AND CLASSROOM ACCOMMODATIONS

- Support family in initiating or continuing medical follow up when sleep problems are present, and ask that any recommendations be shared with school staff.
- If appropriate, encourage a regular, daily exercise routine. (Afternoon is usually the best time to exercise for promoting sleep.)
- If daytime naps are needed, make sure they are kept brief and scheduled at the same time every day.
- Educational support to promote continued classroom success in spite of memory and concentration difficulty.
- Seating near the teacher to promote attending and concentration and to allow the teacher to notice altered states of wakefulness.
- Instruction that promotes active learning.
- Support and counseling for emotional liability if needed.

## RESOURCES

### **National Sleep Foundation**

1522 K Street, NW Suite 500  
Washington, DC 20005  
(202) 347-3471

Web: [www.sleepfoundation.org](http://www.sleepfoundation.org)

*A tremendous amount of information, helpful tips, etc. about sleep and sleep disorders.*

### **The Association of Sleep Disorders Center**

P.O. Box 2604  
DelMar, CA 92014  
(619) 755-6556

### **The American Narcolepsy Association**

1138 Bush Street, Suite D  
San Carlos, CA 94070-2477  
800-327-6085

### [A Clinical Guide to Sleep Disorders in Children and Adolescents.](#)

Gregory Stores. Cambridge (UK):  
Cambridge University Press; 2001  
196 p. US\$39.95

### [A Clinical Guide to Pediatric Sleep: Diagnosis and Management of Sleep Problems.](#)

By Jodi A. Mindell, Judith A. Owens, And  
Publisher: Lippincott Williams & Wilkins. US\$39.95