

## **Sleep 101**

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Sleep – It seems like something you shouldn't have to think about, right?

Many people are sleep deprived due to stress, too much work, or poor sleep habits. Adults need at least 7-9 hours of sleep per night, according to the National Sleep Foundation (NSF). However, in a recent NSF survey (2005), adults reported sleeping a nightly average of 6.8 hours on weekdays and 7.4 hours on weekends. Many people, especially students, are sleeping far less than they need, and this can have negative effects on mental and physical health.

Our bodies are diurnal, meaning the body is supposed to sleep when it is dark and be awake when it is light. The optimal times to go to sleep are between 10 p.m. and 2 a.m., which is when the body is designed to rest. Sleeping allows the brain to regenerate and process information (NSF, 2005).

According to the NSF (2005), getting enough sleep may be a problem for many young people. This is because many youth feel most alert after 3 p.m., have difficulty going to sleep before 11 p.m., and crave more sleep in the morning hours. This is because melatonin, a sleep-related hormone that changes the circadian rhythms of the sleep-wake cycle, is secreted at a different time for youth, compared with young children and adults.

Furthermore, sleep may be the first thing to go when people are under a lot of pressure to complete tasks. For example, as a student, you may feel compelled to get everything finished at

the end of term, and may stay up at night to cram for exams and projects. But you may be putting yourself at a disadvantage by not getting enough sleep. Lack of sleep can affect your concentration, alertness, coordination and memory (“Sleep on It”, 2005). Further, being tired can reduce your ability to think clearly, and it is harder to stay organized and focused. While many people drink coffee or cola to stay awake, these stimulants help minimally. Thus, while they will keep you wakeful, your performance may not be up to your usual standard. In fact, lack of sleep can even lower your I.Q. score (“Sleep on It”, 2005).

Other outcomes of sleep deficits are that it can suppress the immune system, leaving one more prone to illnesses. Further, it can affect moods, and leave people feeling more irritable, which makes it is easier to get into confrontations. Sleep-deprivation can even effect normal conversation, which could have an impact on giving an oral presentation.

Moreover, being tired might make you feel more hungry, causing you to over-eat. This is due partly to an increase in the levels of stress hormones, which increases the desire for high-fat and high-sugar foods. Unfortunately, since the body's metabolism slows down at night time, so the body burns fewer calories.

Another concern about being too tired is that more motor vehicle accidents occur when people are less alert. Fatigue has been identified as a main cause in thousands of police-reported traffic crashes each year, killing or injuring many people. Regrettably,

young drivers 25 years or less are involved in more than one-half of fall-asleep crashes.

If you see that you are affected by lack of sleep, some of the suggestions for getting a better rest are listed below.

### **Tips for good sleep habits from the National Sleep Foundation**

1. Sleep is good for the brain. Get enough of it, and get it when you need it. Even mild sleepiness can hurt your performance -- from taking school exams to playing sports or video games. Lack of sleep can make you look tired and feel depressed, irritable, and angry.
2. Be consistent. Establish a regular bedtime and waketime schedule, and try to maintain it during weekends and vacations. If you take a nap, take it early in the afternoon.
3. Learn how much sleep you need to function at your best. You should wake up feeling rested.
4. Expose yourself to the light as soon as possible in the morning, as this helps to signal to the brain when it should wake up.
5. Understand your circadian rhythm. Then, you can try to plan your schedule throughout the day according to your internal clock. For example, compensate for sleepy times by participating in stimulating activities or classes that are interactive.
6. In the afternoon, avoid coffee, colas, alcohol and nicotine.

7. Relax before going to bed. Try to avoid heavy reading, studying, and computer games within one hour of going to bed. Plan time to unwind before going to sleep.
8. Staying up late can disrupt your sleep patterns and your ability to be alert the next day.

### References

- National Sleep Foundation (2005). *Sleep in America*. Washington, DC: Author.
- Sleep on It. (2005, May 28). *New Scientist*, p. 35.
- (2005, June 3). *Oregon Daily Journal*, p. Ayisha Yahya, News Editor
- URL: [www.ledger-enquirer.com](http://www.ledger-enquirer.com)  
URL: [www.med.stanford.edu/school/psychiatry/humansleep/links.html](http://www.med.stanford.edu/school/psychiatry/humansleep/links.html)  
URL: [www.sleepfoundation.org/](http://www.sleepfoundation.org/)

## Appendix

### Sleep-related Organisations and Links

American Academy of Sleep Medicine  
(AASM) (Formerly the ASDA)  
National Sleep Foundation (NSF)  
Association of Polysomnographic  
Technologists (APT)  
American Sleep Apnea Association  
(ASAA)  
Restless Legs Foundation (RLSF)  
Narcolepsy Network (NN)

### Sleep research organizations

Sleep Research Society  
World Federation of Sleep Research  
Societies (WFSRS)  
National Institute of Health  
National Center on Research Resources  
National Institute on Aging (NIA)  
National Institute on Mental Health  
National Heart, Lung, and Blood  
Institute (NHLBI)  
National Center on Sleep Disorders  
Research  
Sleep Research Online  
National Library of Medicine - Search  
Medline using PubMed or Internet  
Grateful Med to find sleep research  
studies  
New Abstracts and Papers in Sleep  
(NAPS)  
Bibliosleep - all sleep and sleep-related  
papers from 1992 to the present  
Centerwatch Clinical Trials Website  
Food and Drug Administration's Web  
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Stanford University Center of  
Excellence for the Diagnosis and  
Treatment of Sleep disorders  
Center for Narcolepsy  
Sleep Surgery  
The Sleep and Circadian Neurobiology  
Laboratory  
School of Sleep Medicine  
The Sleep Well  
Stanford Primary Care Sleep Education  
Project  
UCSF/Stanford Health Care Home Page  
Stanford University Medical Center  
Research Studies (partial list)  
Research Related Resources  
Stanford's ACCESS - Academic  
Consortium for Clinical Excellence  
in Scientific Studies  
Stanford Healthlink  
Circadian Rhythms - Circadian  
Technologies ([www.circadian.com](http://www.circadian.com))  
Sleep Information for Patients and the  
General Public - National Heart,  
Lung & Blood Institute  
([nhlbi.nih.gov/health/public/sleep](http://nhlbi.nih.gov/health/public/sleep))