

IN BRIEF:

Your Guide To Healthy Sleep

When you're in a rush to meet work, school, family, or household responsibilities, do you cut back on your sleep, thinking it won't be a problem? Like many people, you might think that sleep is merely a "down time" when the brain shuts off and the body rests. Think again.

What Is Sleep?

Sleep was long considered just a block of time when your brain and body shut down. Thanks to sleep research studies done over the past several decades, it is now known that sleep has distinct stages that cycle throughout the night in predictable patterns. Your brain and body functions stay active throughout sleep, but different things happen during each stage. For instance, certain stages of sleep are needed for us to feel well rested and energetic the next day, and other stages help us learn or make memories.

In brief, a number of vital tasks carried out during sleep help people stay healthy and function at their best. On the other hand, not getting enough sleep can be dangerous—for example, you are more likely to be in a car crash if you drive when you are drowsy.

How Much Sleep Is Enough?

Sleep needs vary from person to person, and they change throughout the life cycle. Most adults need 7–8 hours of sleep each night. Newborns, on the other hand, sleep between 16 and 18 hours a day, and children in preschool sleep between 11 and 12 hours a day. School-aged children and teens need at least 10 hours of sleep each night.

Some people believe that adults need less sleep as they get older. But there is no evidence to show that older people can get by with less sleep than younger people. As people age, however, they often get less sleep or they tend to spend less time in the deep, restful stage of sleep. Older people are also more easily awakened.

Why Sleep Is Good for You—and Skimping on It Isn't

Does it really matter if you get enough sleep? Absolutely! Not only does the quantity of your sleep matter, but the quality of your sleep is important as well. People whose sleep is frequently interrupted or cut short might not get enough of certain stages of sleep. In other words, how well rested you are and how well you function the next day depend on your total sleep time and how much of the various stages of sleep you get each night.

U.S. Department of Health and Human Servic
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Crash in Bed
Not on the Road

Most people are aware of the hazards of drunk driving. But did you know that driving while drowsy can be just as deadly? Like alcohol, a lack of sleep makes it harder to react quickly enough to a suddenly braking car, a sharp curve in the road, or other potentially dangerous situations.

Watch for these warning signs that you might be too sleepy to drive safely:

- Trouble keeping your eyes open or focused
- Continual yawning
- Inability to recall driving the past few miles

If you feel sleepy while driving, pull off the road to a safe place and take a nap for 15–20 minutes.

Tips To Avoid Drowsy Driving

- **Be well rested before hitting the road.** Keep in mind that if you skimp on sleep for several nights in a row, it might take more than one night of good sleep to be well rested and alert.



- **Avoid driving between midnight and 7 a.m.** This period of time is when we are naturally the least alert and most sleepy.
- **Don't drive alone.** A companion who can keep you engaged in conversation might help you stay awake while driving.
- **Schedule frequent breaks on long road trips.**
- **Don't drink alcohol.**
- **Don't count on caffeine.** Although drinking a cola or coffee might help keep you awake for a short time, it won't overcome extreme sleepiness.

Remember, if you are short on sleep, stay out of the driver's seat!

Performance: We need sleep to think clearly, react quickly, and create memories. In fact, the pathways in the brain that help us learn and remember are very active when we sleep. Studies show that people who are taught mentally challenging tasks do better after a good night's sleep. Other research suggests that sleep is needed for creative problemsolving.

Skimping on sleep has a price. Cutting back by even 1 hour can make it tough to focus the next day and can slow your response time. Studies also find that when you lack sleep, you are more likely to make bad decisions and take more risks. This can result in lower performance on the job or in school and a greater risk for a car crash.

Mood: Sleep affects mood. Insufficient sleep can make you irritable and is linked to poor behavior and trouble with relationships, especially among children and teens. People who chronically lack sleep are also more likely to become depressed.

Health: Sleep is also important for good health. Studies show that not getting enough sleep or getting poor quality sleep on a regular basis increases the risk of having high blood pressure, heart disease, and other medical conditions.

In addition, during sleep, your body produces valuable hormones. Deep sleep triggers more release of growth hormone, which fuels growth in children and boosts muscle mass and the repair of cells and tissues in children and adults. Another type of hormone that increases during sleep helps the immune system fight various infections. This might explain why a good night's sleep helps keep you from getting sick—and helps you recover when you do get sick.

Hormones released during sleep also control the body's use of energy. Studies find that the less people sleep, the more likely they are to be overweight or obese, to develop diabetes, and to prefer eating foods that are high in calories and carbohydrates.

Could You Have a Sleep Disorder?

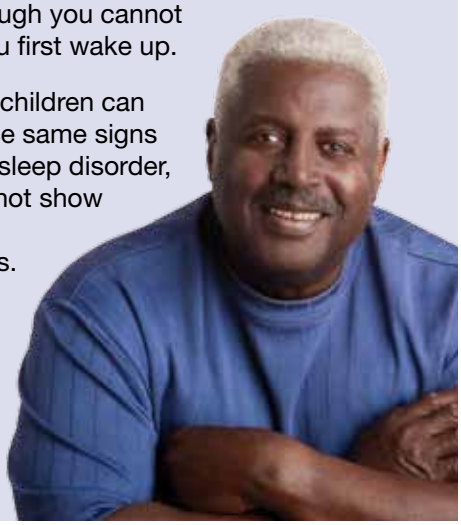
If you are spending enough time in bed and still wake up tired or feel very sleepy during the day, you may be one of the estimated 40 million Americans with a sleep disorder.

The most common sleep disorders are insomnia (trouble falling or staying asleep), sleep apnea (pauses in breathing during sleep), restless legs syndrome, and narcolepsy (extreme daytime sleepiness). Although sleep disorders can significantly affect your health, safety, and well-being, they can be treated.

Talk to your doctor if you have any of these signs of a sleep disorder:

- You consistently take more than 30 minutes each night to fall asleep.
- You consistently awaken several times each night and then have trouble falling back to sleep, or you awaken too early in the morning.
- You often feel sleepy during the day, you take frequent naps, or you fall asleep at inappropriate times during the day.
- Your bed partner says that when you sleep, you snore loudly, snort, gasp, make choking sounds, or stop breathing for short periods.
- You have creeping, tingling, or crawling feelings in your legs or arms that are relieved by moving or massaging them, especially in the evening and when trying to fall asleep.
- Your bed partner notices that your legs or arms jerk often during sleep.
- You have vivid, dreamlike experiences while falling asleep or dozing.
- You have episodes of sudden muscle weakness when you are angry or fearful, or when you laugh.
- You feel as though you cannot move when you first wake up.

Keep in mind that children can have some of these same signs when they have a sleep disorder, but they often do not show signs of excessive daytime sleepiness. Instead, they may seem overactive and have difficulty focusing or doing their best in school.



It's About Time

How sleepy you are depends largely on how well you've been sleeping and how much sleep you've been getting. Another key factor is your internal "biological clock"—a small bundle of cells in your brain that controls when you feel sleepy and your sleep patterns (based on responses to internal and external environmental cues, such as light signals received through your eyes). Because of the timing of the biological clock and other bodily processes, you naturally feel the most tired between midnight and 7 a.m. and again in the afternoon between 1 p.m. and 4 p.m.

Night shift workers often find themselves drowsy at work. They also have trouble falling asleep or staying asleep during the day, when their schedules require them to sleep. Being sleepy puts them at risk for injuries on the road and at work. Night shift workers are also more likely to have conditions such as heart disease, digestive troubles, and infertility, as well as emotional problems. All of these problems may be related, at least in part, to their chronic lack of sleep.

Adapting to new sleep and wake times can also be hard for travelers crossing time zones, resulting in what's known as jet lag. Jet lag can lead to daytime sleepiness, trouble falling asleep or staying asleep at night, poor concentration, and irritability.

The good news is that by using appropriately timed cues, most people can reset their biological clock, but only by 1–2 hours per day at best. Therefore, it can take several days to adjust to a new time zone (or different work schedule). If you'll be moving across time zones, you might want to begin adapting to the new time zone a few days before leaving. Or, if you are traveling for just a few days, you might want to stick with your original sleep schedule and not try to adjust to the new time zone.

Get a Good Night's Sleep

Like eating well and being physically active, getting a good night's sleep is vital to your well-being. Here are 13 tips to help you:

- **Stick to a sleep schedule.** Go to bed and wake up at the same time each day—even on the weekends.
- **Exercise is great, but not too late in the day.** Try to exercise at least 30 minutes on most days but not later than 2–3 hours before your bedtime.
- **Avoid caffeine and nicotine.** The stimulating effects of caffeine in coffee, colas, certain teas, and chocolate can take as long as 8 hours to wear off fully. Nicotine is also a stimulant.
- **Avoid alcoholic drinks before bed.** A "nightcap" might help you get to sleep, but alcohol keeps you in the lighter stages of sleep. You also tend to wake up in the middle of the night when the sedating effects have worn off.
- **Avoid large meals and beverages late at night.** A large meal can cause indigestion that interferes with sleep. Drinking too many fluids at night can cause you to awaken frequently to urinate.
- **Avoid medicines that delay or disrupt your sleep, if possible.** Some commonly prescribed heart, blood pressure, or asthma medications, as well as some over-the-counter and herbal remedies for coughs, colds, or allergies, can disrupt sleep patterns.
- **Don't take naps after 3 p.m.** Naps can boost your brain power, but late afternoon naps can make it harder to fall asleep at night. Also, keep naps to under an hour.
- **Relax before bed.** Take time to unwind. A relaxing activity, such as reading or listening to music, should be part of your bedtime ritual.
- **Take a hot bath before bed.** The drop in body temperature after the bath may help you feel sleepy, and the bath can help you relax.
- **Have a good sleeping environment.** Get rid of anything in your bedroom that might distract you from sleep, such as noises, bright lights, an uncomfortable bed, or a TV or computer in the bedroom. Also, keeping the temperature in your bedroom on the cool side can help you sleep better.
- **Have the right sunlight exposure.** Daylight is key to regulating daily sleep patterns. Try to get outside in natural sunlight for at least 30 minutes each day.
- **Don't lie in bed awake.** If you find yourself still awake after staying in bed for more than 20 minutes, get up and do some relaxing activity until you feel sleepy. The anxiety of not being able to sleep can make it harder to fall asleep.
- **See a doctor if you continue to have trouble sleeping.** If you consistently find yourself feeling tired or not well rested during the day despite spending enough time in bed at night, you may have a sleep disorder. Your family doctor or a sleep specialist should be able to help you.

Clinical Trials

The National Heart, Lung, and Blood Institute (NHLBI) supports research aimed at learning more about healthy sleep and sleep disorders. NHLBI-supported research has led to many advances in medical knowledge and care. Often, these advances depend on the willingness of volunteers to take part in clinical trials.

Clinical trials test new ways to prevent, diagnose, or treat various diseases and conditions. You can take part in a clinical trial to gain access to new treatments before they're widely available and help add to scientific knowledge.

For more information about clinical trials related to sleep disorders, talk with your doctor. You also can visit the following Web sites to learn more about clinical research and to search for clinical trials:

- www.clinicaltrials.gov
- http://clinicalresearch.nih.gov
- www.nhlbi.nih.gov/studies/index.htm

To Learn More

Contact the NHLBI for information on healthy sleep and sleep disorders.

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