

Basics of Sleep

Sleep is a basic necessity of life, as important to our health and well-being as food and water. When we sleep well, we wake up feeling refreshed, alert and ready to face daily challenges. Sleepiness affects vigilance, reaction times, learning abilities, alertness, mood, hand-eye coordination, and the accuracy of short-term memory as well as serious health issues such as obesity, diabetes, depression, hypertension and some cancers. When we don't sleep well, every part of our lives can suffer including our health, safety, relationships, academics, athletic performance, and jobs.

Sleep Quantity and Quality Count

Getting enough sleep refers to the amount of sleep you need to not feel sleepy the next day or to avoid what is called a *sleep debt*. If sleepiness interferes with your daily activities, you probably need more sleep. Even if you allow adequate time for sleep, disrupted sleep can have the same consequences as the lack of sleep, including:

- Difficulty concentrating, completing tasks and making decisions
- Problems with learning and memory
- Increased risk of diabetes, heart disease and stroke
- Increased risk of obesity
- Increased risk of injury or death in sleep-related motor-vehicle crashes and workplace accidents
- Daytime sleepiness

Age	Hours of Sleep
4*-12 months	12-18 hours
1-2 months	11-14 hours
3-5 years	10-13 hours
6-12 years	9-12 hours
13-18 years	8-10 hours

*Total time including naps.

Why Nighttime Sleep is Important

Two processes in the brain regulate sleep. One is the restorative process when sleep occurs naturally in response to how long we are awake; the longer we are awake, the stronger is the drive to sleep. The second process controls the timing of sleep and wakefulness during the day-night cycle. The circadian clock located in our brain regulates timing. This part of the brain is influenced by light so that we naturally tend to get sleepy at night when it is dark and are active during the day when it is light.

States and Stages of Sleep



As we sleep, we pass through different states and stages of sleep—more likely to be experienced with continuous sleep. This “sleep architecture” follows a predictable

pattern of REM (rapid-eye movement) and NREM (non-rapid eye movement) sleep throughout a typical 9-hour period. Each of these states alternates every 90 minutes and plays a vital part in quality sleep. Failure to experience all stages of sleep can severely degrade sleep quality.

If you are having sleep problems or regular daytime sleepiness, consider keeping a sleep diary for a week or two to record your sleep and health habits and share it with your doctor.

You Are Only as Healthy As You Sleep

Millions of children suffer from sleep disorders such as sleep apnea, nightmares, night terrors, sleepwalking and bedwetting. Many of these, children will grow out of or can be treated. Disorders such as sleep apnea can lead to serious health issues if left untreated.

Recent research suggests that sleep deprivation even impacts aging, weight gain, and dementia in later life. Insufficient sleep may also make it difficult to exercise and can reduce the benefit of hormones released during sleep. In order to wake-up refreshed and ready for the challenges of a new day, make sleep a priority and get the amount you need.