

Be Well Aware – Health Article



The Science of Sleeping

Why Do You Need Sleep?

Sleep is an essential part of our everyday lives. Without sleep, your brain cannot function properly which can lead to lack of concentration and memory. Sleep affects almost every system in your body. In fact, sleep can affect your mood, immune function and even your metabolism.

What Happens When You Sleep?

Your body has an internal “body clock” that regulates your sleep cycle, controlling your alertness and fatigue. Within just a minute of falling asleep, both the brain and body start to recharge. However, not all sleep is the same. There are multiple sleep stages, each lasting between 70 to 120 minutes.

- Stage 1: In this stage you have just started to fall asleep and are transitioning into stage 2. Your muscles and brain begin to relax. This stage typically lasts 1 to 5 minutes.
- Stage 2: This is a 10-to-60-minute stage that is a period of light sleep. Your heartbeat and breathing has slowed down and your muscles relax even further. Usually, stage 2 is the longest of the four stages of sleep.



- Stage 3: This stage is the deepest part of sleep. It's the period of sleep you need in order to feel refreshed in the morning. This stage lasts between 20-to-40 minutes at a time.
- Stage 4: In this stage your brain becomes more active and your eyes are moving rapidly behind closed eyelids. Most of your dreaming will occur in this phase. Stage 4 sleep last about 10 to 60 minutes.

All four of these stages will repeat in multiple cycles throughout the night. Most cycles will last between 90 to 120 minutes.

How Much Sleep Do You Need?

- There is no magic number of sleep hours that works for everybody. For adults, the recommended sleep ranges from 7-9 hours. On the other hand, the recommended sleep for newborns to teens is much higher, ranging between 8 to 17 hours!

Age Group	Age Range	Recommended Amount of Sleep per Day
Newborn	0-3 months	14-17 hours
Infant	4-11 months	12-15 hours
Toddler	1-2 years	11-14 hours
Preschool	3-5 years	10-13 hours
School-age	6-13 years	9-11 hours
Teen	14-17 years	8-10 hours
Young Adult	18-25 years	7-9 hours
Adult	26-64 years	7-9 hours
Older Adult	65 years or older	7-8 hours

What Affects Your Sleep?

- Light can affect how long and how well you sleep. This makes us more prone to sleep during the night than the day.
- Your genetics can play a factor in your sleep. Studies show that your genes can determine how much sleep you need. Different genes have also been linked to several sleeping disorders.
- The intake of caffeine can interfere with your ability to fall asleep. If you fall asleep after caffeine consumption, you are less likely to go into a deep sleep.

References:

<https://www.sleepfoundation.org/how-sleep-works/why-do-we-need-sleep>

<https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Understanding-Sleep>

<https://www.sleepfoundation.org/how-sleep-works>

Tips for Getting a Good Night's Sleep

- Try adhering to a regular sleep schedule. Going to bed and waking up at the same time each day can help improve your sleep.
- Make sure you are getting enough sleep. Try getting the recommended hours of sleep for your age group.
- Become more physically active. Studies have shown that exerting physical energy throughout your day will help you sleep better.
- Create a good sleeping environment. Avoid bright lights and loud sounds. Have the room at a comfortable temperature. Avoid stimulants like television, computer and radio.
- Practice relaxing techniques before bed. Taking a warm bath, meditation, and reading are all good forms of relaxation before bedtime.



***Fun Fact:** One-third of your time is spent sleeping!