

# Sleep: From A to ZZZ

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*“If sleep does not serve an absolutely vital function, then it is the biggest mistake the evolutionary process has ever made.”*

*– Allan Rechtschaffen,  
leading sleep  
researcher*

What activity is so important that you need to spend one-third of your life doing it? Sleep! It is vital to help us maintain good health and function at our best. Sleep is more than down time or the opposite of being awake. Because many people don't understand it, they neglect their sleep. At a time when people are getting less and less sleep, new research shows the power of a good night's rest.

## Basics of Sleep

The sleep cycle involves a natural and predictable pattern of stages that actively involves your brain and body system. There are two basic types: rapid eye movement sleep and non-REM sleep. We sleep in five stages:

1. Sleep begins with stage one: non-REM sleep. While you lightly doze, your eyes move slowly. You may have sudden muscle contractions. Noises can easily awaken you.
2. Next is stage two: non-REM sleep. Eye movements stop. Brain waves are slower.
3. Stage three: non-REM sleep is deep sleep.
4. Stage four: non-REM sleep is also deep sleep when brain waves are extremely slow.
5. The last stage: REM sleep. Breathing is fast, irregular and shallow. Heart rate and blood pressure rise. We dream mostly during REM sleep.

The five-stage cycle repeats throughout the night. Sleep is affected by many factors: your internal biological clock, natural body chemicals and hormones, environmental cues, fatigue and the foods, beverages and medicines we consume.

## Surprising Benefits of Sleep

Studies show many amazing benefits to a regular pattern of eight hours of sleep each night.



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- **Health** – Less than seven hours of sleep is associated with greater risk of obesity, high blood pressure, diabetes, heart disease, stroke, mental distress and death. Deep sleep triggers the release of hormones and antibodies that help your body repair cells, build muscle, fight infections and regulate blood sugar and blood pressure.
- **Performance** – Being well-rested increases the ability to learn and improves memory and creative problem-solving. Lack of sleep slows down reactions and makes it harder to focus and make good decisions. During sleep, the brain forms pathways for new learning, memories and ideas. Infants and children need sleep for proper brain development.
- **Mood** – Occasionally, irritability occurs after a bad night's sleep. Night after night, this can lead to serious depression.
- **Safety** – Lack of sleep increases the chance of accidents, medical errors and poor work productivity.

## Common Sleep Issues

About one-third of U.S. adults – 84 million – are at risk because they get too little sleep. There are more than 70 sleep disorders that affect millions of Americans and attribute \$16 billion to medical costs each year. The four most common issues are:

1. Insomnia
2. Sleep Apnea
3. Restless Leg
4. Narcolepsy Syndrome

Talk to your health care provider if you find you're often tired during the day or have sleep problems.



## Tips for Better Sleep

- **Be active** – Daily physical activity helps with relaxation and raises the core body temperature, which in turn supports falling asleep and staying asleep. Exercise at least three hours before bedtime.

- **Get morning sunshine** – Natural daylight helps your body regulate sleep. Try to get outside for at least 30 minutes each day.
- **Bedtime routine** – Follow three or four activities: warm bath, a warm drink, brushing your teeth, washing your face, changing your clothes, reading a book every night at the same time and in the same order. Then, your body will begin to relax and anticipate sleep.
- **Limit caffeine** – Caffeine interferes with falling asleep and sleep productivity.
- **Limit naps** – Excessive napping may keep you awake later at night. A power nap (resting for 15 to 20 minutes) may recharge your mind and body.
- **Limit noise and light** – Keep your bedroom dark. Have a noisy environment or sleep with a snorer? Use ear-plugs or white noise. Lights and distractions of televisions, computers and cell phones may keep you from sleeping productively. Make your bedroom environment relaxing and technology-free.
- **Temperature control** – Cooler temperatures (around 65 degrees Fahrenheit) are best.

## Sleep on It!

We are just beginning to understand sleep and how it impacts our lives. Establishing healthy sleep patterns benefit you in many ways. Parents need to provide children with appropriate sleep routines and environments so children will have healthy lifetime habits. Adults of all ages need to pay attention to their sleep habits for optimal health and quality of life.

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