

# SLEEP AND OUR BRAINS



## *Why is Sleep so Important to Brain Health?*

Sleep is incredibly important to our overall health and wellness, just as physical exercise and nutrition. We spend one-third of our time sleeping.

During times of sleep our brains are working hard to help us to be more efficient, keep our bodies healthy, regulate our appetite, clear our bodies of toxins building up. Quality sleep also helps control mood, stay calm, and leads us to more creative thinking.

However, without quality sleep, our brains cannot maintain pathways that allow us to learn and create new memories. Lack of quality sleep can lead to an increased difficulty in staying focused, a slower response time, a head in the clouds feeling, and an increase likelihood of making risky decisions. Lack of sleep also has a negative effect on our overall health by increasing our risk of being diagnosed with, high blood pressure, depression, cardiovascular disease, diabetes, and obesity.

## *The Four Stages of Sleep*

### *NREM Sleep Stages*

#### **Stage 1**

- Your brain slows down
- Your heartbeat, your eye movements, and your breathing slow with it
- Your body relaxes, and your muscles may twitch

#### **Stage 3**

- Your muscles are completely relaxed
- Your blood pressure drops and breathing slows
- You progress into your deepest sleep

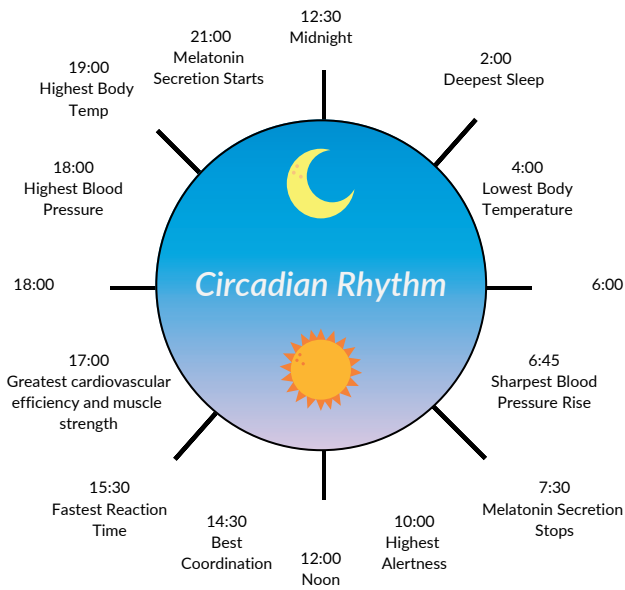
#### **Stage 2**

- You become less aware of your surroundings
- Your body temperature drops
- Your eye movements stop
- Your breathing and heart rate become more regular

### *REM Sleep Stages*

#### **Stage 4**

- Your brain lights up with activity
- Your body is relaxed and immobilized
- Your breathing is faster and irregular
- Your eyes move rapidly
- You dream



Circadian Rhythm: Our 24-hr internal clock that is running in the background of our brain and cycles between sleepiness and alertness at regular intervals. Also known as our sleep/wake cycle.

### Sleep Facts

- Regular exercise can make it easier for individuals to fall asleep and contributes to a sounder sleep as well.
- However, sporadically exercising or exercising right before bedtime can make falling asleep a bit more challenging.
- Most healthy adults need 7-9hrs of sleep per night. Some individuals however are able to function without sleepiness after as little as 6hrs of sleep.
- We naturally feel tired at two different times of the day - 2:00 am and 2:00 pm.
- Sleep is just as important as a healthy lifestyle and exercise.
- 82% of healthcare professionals believe it is both their (as a healthcare provider) and the patient to bring up symptoms of insomnia during an appointment.
- One of the leading causes of excessive sleepiness among Americans is self-imposed sleep deprivation.
- According to the National Sleep Foundation, 2008 "Sleep in America" poll, 36% of Americans drive drowsy or fall asleep while driving.
- Sleep is an important resource that keeps us healthy and mentally sharp so we are better able to deal with stress effectively in our lives.

Visit [www.braincentergb.org](http://www.braincentergb.org)  
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