

BE YOUR BEST! GET YOUR REST! SLEEP PRIORITIZATION FOR TEENS



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Sleep Prioritization for Teens

Girl Scout Gold Award
Emily M. Kitchens
Class of 2021

Think about the essentials that human beings require to survive.

I bet among those listed were food, water, maybe shelter or human interaction.

I also bet that you did not list sleep!

Sleep is as important to humans as food and water. Without it, our brains cannot form or strengthen paths between neurons which help us to learn and retain information.

Sleep allows our body and mind to recharge, leaving us refreshed and alert when we wake up. Lack of sleep affects thinking and academic achievement, emotional health, physical health and development.

The Problem

High Schools around the world begin the day in the early hours.

Teenagers are busy and tend to stay up late in order to get everything done. Overscheduling can make it hard to get a good night's sleep.

Teens have rigorous schedules of schoolwork and sports, jobs and after school activities. Don't forget keeping up a social life all the while. These demands make for an early wake up time and a late bedtime.

Sleep prioritization takes a back seat in the lives of teens today.

Let's Learn More About Sleep

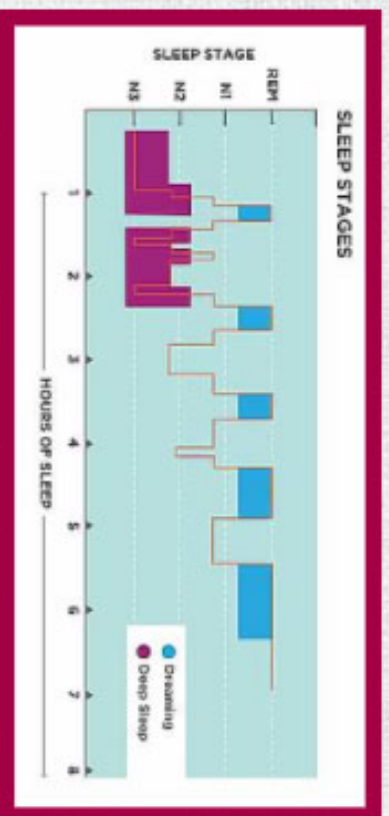
Studies show that teens need 9 hours of sleep each night. 60-70% of teens report mild to severe sleep deprivation, while almost every teen is getting less than 9 hours of sleep each night.

Sleep begins when the hypothalamus receives signals from the suprachiasmatic nuclei (SCN) producing melatonin, the key hormone that induces sleep.

The SCN reacts to light exposure in eyes as well as habits and tendencies over time.

Once melatonin kicks in, the brain begins the sleep cycles. In teenagers, melatonin is released later than both children and adults.

The Sleep Cycle

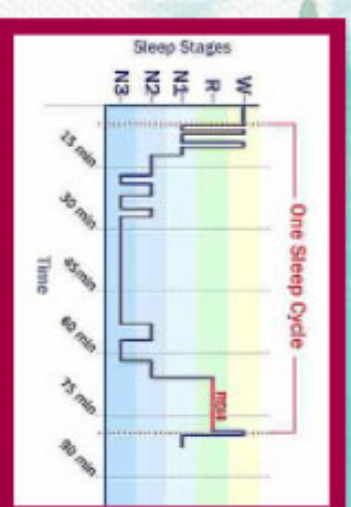


Once we fall asleep, our bodies follow a sleep cycle that is divided into four stages. The first three stages are known as non-rapid eye movement (NREM) sleep. The final stage is known as rapid eye movement (REM) sleep.

A complete sleep cycle lasts around 90-100 minutes. The four stages will repeat cyclically throughout the night until you wake up. Ideally, one would experience 4 to 6 cycles per night, totalling about 8 to 9 hours of sleep.

Later sleep cycles tend to have longer REM periods than cycles earlier in the night. If you are experiencing sleep deprivation, you only sleep through 1 or 2 cycles instead of 4 to 6, so your length and quality of REM sleep suffers.

Sleep Stages



Stage N1 - This stage lasts about 7 minutes. The muscles begin to relax during this light sleep stage. Breathing, heartbeat, eye movement, and brain activity slow.

Stage N2 - This is the light to deeper sleep stage everything slows further. The body temperature lowers, and eyes stop moving. Brain waves slow. If you were to schedule a power nap to refresh, you would want to wake up after this stage. A quality power nap lasts 20-30 minutes.

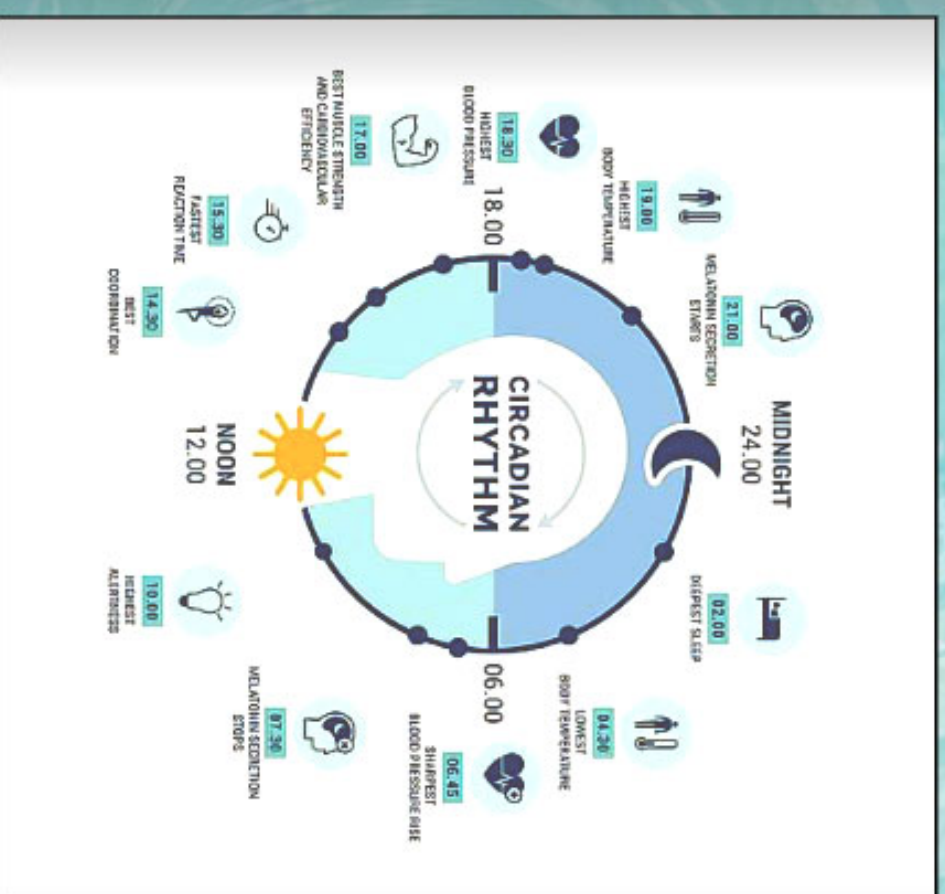
Stage N3 - This deepest sleep stage ensures that we are refreshed in the morning. It lasts about 20-40 minutes. This stage has longer periods of sleep in the first half of the night. Pulse and breathing slow to their lowest rate and muscles are essentially completely relaxed. People are harder to wake up in this stage.

An Internal Body Clock

Circadian rhythms are a natural, internal process that regulate the sleep-wake cycle. They control when we feel tired or alert. The clock repeats on each rotation of the Earth, roughly every 24 hours. Circadian rhythms operate wakefulness, metabolism, hormones, and body temperature based on a biological clock. These rhythms exist with, but also separately from, environmental cues such as daylight, which is detected by the brain through the eyes to help determine if it is day or night.

As natural light disappears in the evening, the body releases melatonin, a hormone that induces drowsiness. When the sun rises in the morning, the body releases a hormone called cortisol that promotes energy and alertness.

Problems arise when circadian rhythms are not in sync with environmental cues. The delayed release of hormones can be a result of bright screens and late night activity.

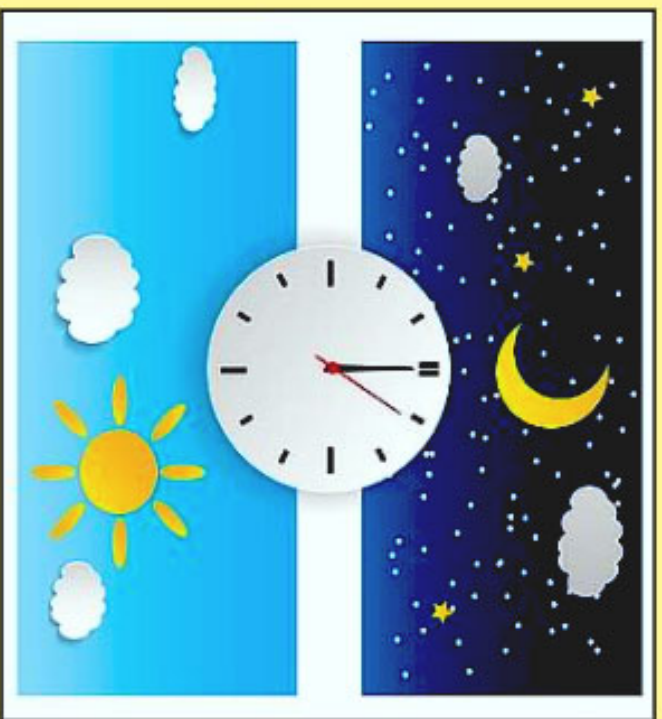


What happens when you don't get enough sleep?

There are mental and physical effects of sleep deprivation. These include, but are not limited to the following.

Mental effects of Sleep Deprivation:

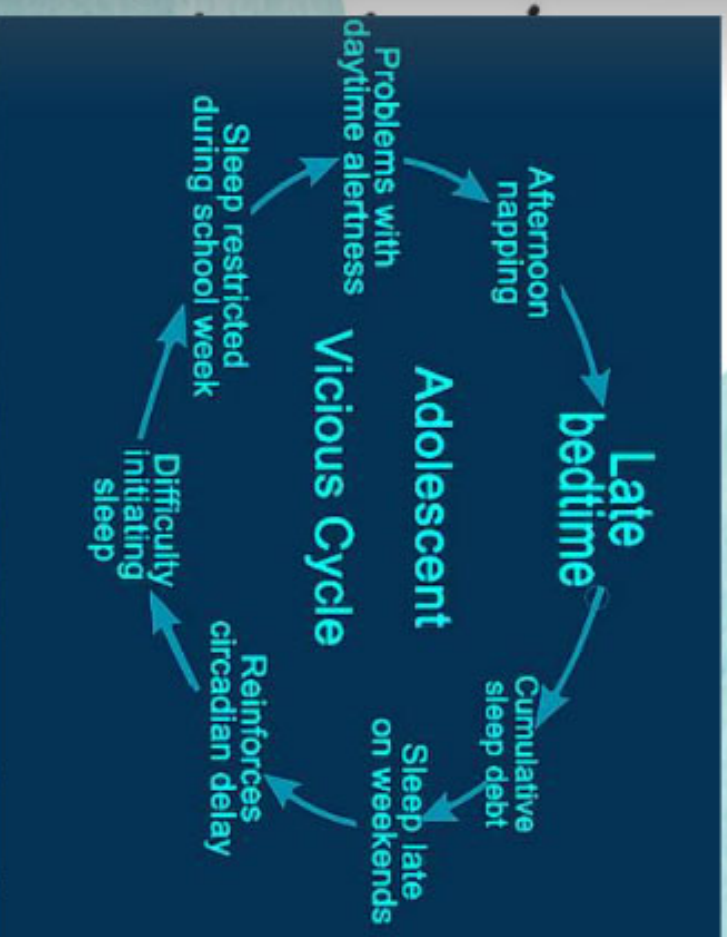
- Depression - chronic disruption of sleep
- Hopelessness and increased suicide risk
- Lack of enthusiasm and motivation
- Moodiness and aggression
- Eating disorders as a result of increased weight gain associated with lack of sleep
 - Paranoia
- Can trigger manic episodes in people with bipolar disorder.
- ADHD, and inability to focus resulting in poor performance in classes.



Physical effects of Sleep Deprivation:

- REM sleep directly affects emotional regulation, learning, and memory. Decreased REM can lead to less control of emotions, making it easier to become irritated. It also affects your memory solidification. Teens with decreased REM are proven to struggle more with learning more information and retaining information previously learned, and have less creative capacity.
- The regulation of hormones and enzymes that process fats and sugars are affected, so your metabolism decreases and obesity is more likely with a decrease in sleep.
- Caffeine and stimulants can combat fatigue but are not an alternative to REM sleep. Drugs are often used to cope with stress. Teens are more likely to turn to drugs due to sleep deprivation.
- Reflexes slow which can lead to car accidents. Teens are also more likely to drive recklessly.
- Accidents and injuries on the job
- Weakened immune system
- Increased risk of diabetes, hypertension and cardiovascular disease

Teens are Night Owls





Myths About Sleep Debunked

-Making up for sleep on the weekend works.

FALSE! The key feeling awake is staying on a good sleep schedule. A couple of extra hours here and there can be beneficial, but generally sleeping until noon on the weekends is worse on your brain because it is more difficult to adjust for your regular schedule.

-Your brain adapts to the amount of sleep you get.

FALSE AGAIN! This is simply not true, as each teenager needs 9 hours of sleep.

-Turning up the radio, opening the window, or turning on the air conditioner are effective ways to stay awake while driving.

FALSE! These "aids" are ineffective. If you feel tired while driving, the best thing to do is to pull off the road in a safe rest area and take a nap for 20-30 minutes. The best prevention for drowsy driving is a good night's sleep before your trip.



EAT
PLAY
Sleeps



Yoga for Sleep



Meditate, practice yoga, listen to calming music, do breathing exercises.

Sleep Prioritization Solutions for Teens



- Consider tutoring to help support you in this stressful time. Don't get behind. Reach out to family and friends for support.
- Time management. Get work done, prioritize, and get distractions out of the way.
- Keep a schedule for yourself, and stick to it. Go to bed and get up at the same time every day- even on weekends. Avoid the vicious cycle of the night owl.
- Avoid stimulants and electronic screens before bedtime-including video games, tv, phones, etc.
 - Avoid caffeine
- Keep your room darker at night and avoid lights that stimulate your brain and delay the release of melatonin
- Exercise 20 to 30 minutes a day but no later than a few hours before going to bed.
- Give yourself time to sleep.
You deserve it!

I am so very grateful for your support.

I would like to thank my Gold Award team for their support and encouragement as I worked to achieve my Girl Scout Gold Award.

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Thank you so much for reading my book!
I would appreciate your feedback through the
following survey link:

<https://www.surveymonkey.com/r/5PT8388>

Feel free to contact me at
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The Girl Scout Law

I will do my best to be:

Honest and Fair

Friendly and Helpful

Considerate and Caring

Courageous and Strong, and

To be Responsible for what I Say

and Do

and to

Respect Myself and Others

Respect Authority

Use Resources Wisely

Make the World a Better Place,

and

Be a Sister to Every Girl Scout

The Girl Scout Promise

On my honor, I will try:

To serve God and my

country,

To help people at all times,

And to live by the Girl

Scout Law

