

# Sleep



# SLEEP CYCLES

**Sleep is actually an active time within the body during which tissues and nerve cells are repaired and renewed.**

**Human beings experience 5 stages of sleep that recur cyclically (every 90-120 minutes) throughout a typical night.**

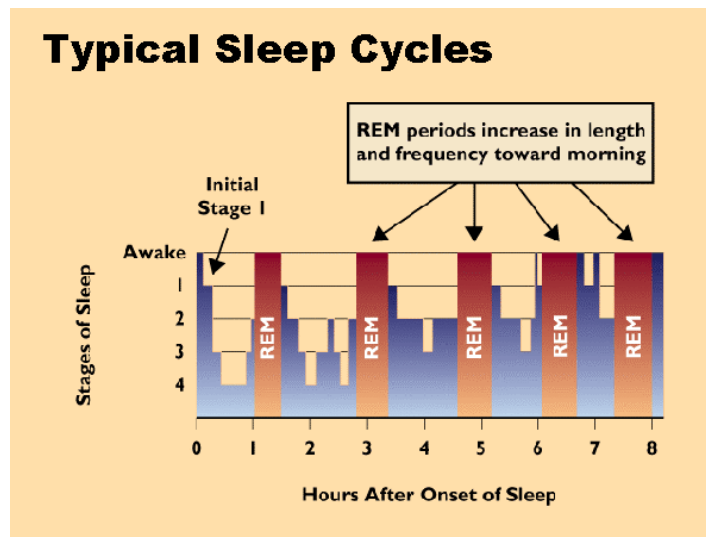
**Stage 1:** Sinking into sleep; electrical brain activity, eye and jaw movement and respiration slow; last up to 10 minutes

**Stage 2:** light, restful sleep; body temperature lowers, muscles relax; lasts up to 10 minutes

**Stage 3:** deep, dreamless, “slow brain wave” sleep

**Stage 4:** deep, dreamless, “slow brain wave” sleep

**Stage 5:** REM (Rapid Eye Movement); eyes twitch and intense dreaming occurs; REM sleep cycles get longer through the night





**REM sleep (stage 5) is the BRAIN STAGE of SLEEP.**

Here's what happens in your brain during this stage of sleep:

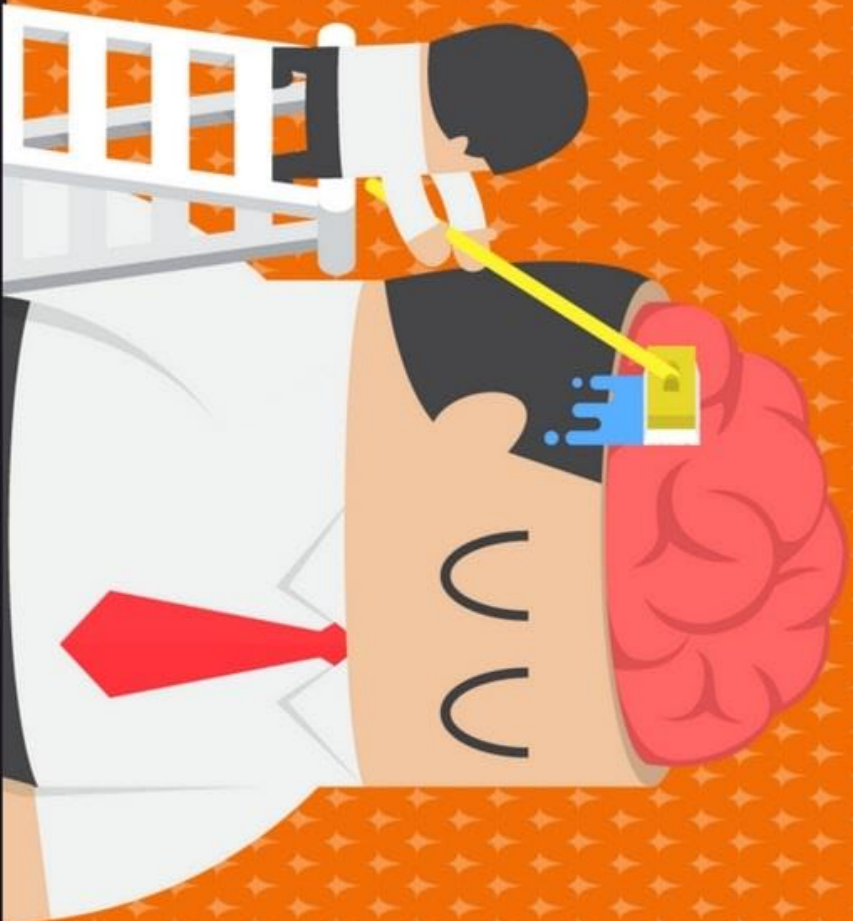
- **brain repair and restoration,**
- **organization of long-term memory**
- **integration of new information**



DAILYHEALTHPOST™

YOUR BRAIN HAS A  
MICROSCOPIC CLEANING  
SYSTEM TO

# REMOVE TOXINS



AND IT'S ONLY ACTIVE  
DURING SLEEP

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**Stages 3 and 4 of non-REM sleep are the BODY STAGES of SLEEP.**

Here's what happens in your body during these stages of sleep:

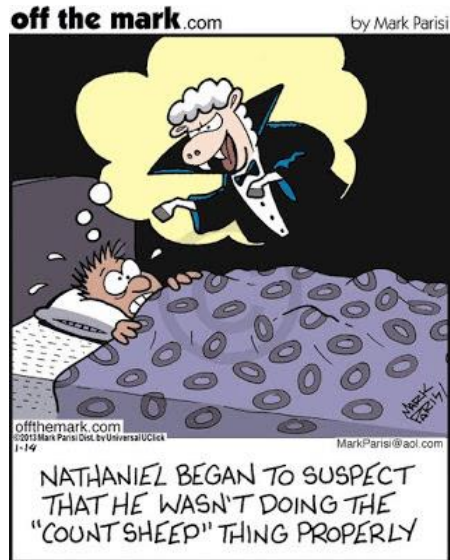
- **repairing and renewing of tissues**
- **repairing and renewing of nerve cells**
- **restoration of normal levels of chemicals throughout our bodies**



# Tips for Better Sleep

Eating well, being physically active and getting a good night's sleep is vital to your well-being.

Establishing good habits around sleep can maximize the benefit you receive from the time you do set aside for sleep.



- Avoid stimulants like caffeine and nicotine. The stimulating effects of caffeine in coffee, teas and chocolate can take as long as 8 hours to wear off fully!
- Have a good sleeping environment. Sleep in a quiet, dark and relaxing environment which is neither too hot nor too cold. Get rid of anything that might distract you from sleep, such as noises or bright lights.
- Make your bed your bastion of sleep! Use it only for sleeping (and sex), and NOT for other activities like reading, watching movies or listening to music.
- Avoid large meals before bedtime.
- Avoid physical activity within a few hours of bedtime.
- Do your best to stick to sleep schedule—go to bed and wake up at the same time each day.

## When you aren't able to get enough sleep at night, a POWER NAP can make a big difference!

Daytime naps can actually be a way to treat sleep deprivation. However, keep your eyes on the following tips to make the most of your naps.

- **Nap-time!** Prime napping hours are 1:00-3:00pm. If you start napping too close to bed-time, it will be hard to fall asleep at night.
- **Make it quick!** Don't sleep for more than 30 minutes or you're likely to feel groggy. The 20-minute power nap is good for boosting alertness!
- **Block the light!** Blocking out light helps you fall asleep faster. Nap in a dark room or wear an eye mask.
- **Stay warm.** Your body temperature tends to drop while you sleep, so cuddle up with a blanket.

# NAPPING

Napping can't make up for inadequate or poor quality sleep, but short “power” naps of 20-30 minutes can help to improve mood, alertness and performance. Power naps work because they take advantage of how our sleep cycles work.



The optimal power nap should roughly coincide with the first 20 minutes of sleep in order to give you full access to stage two's restorative benefits.

When you wake up from a nap and don't know what century it is 🤪



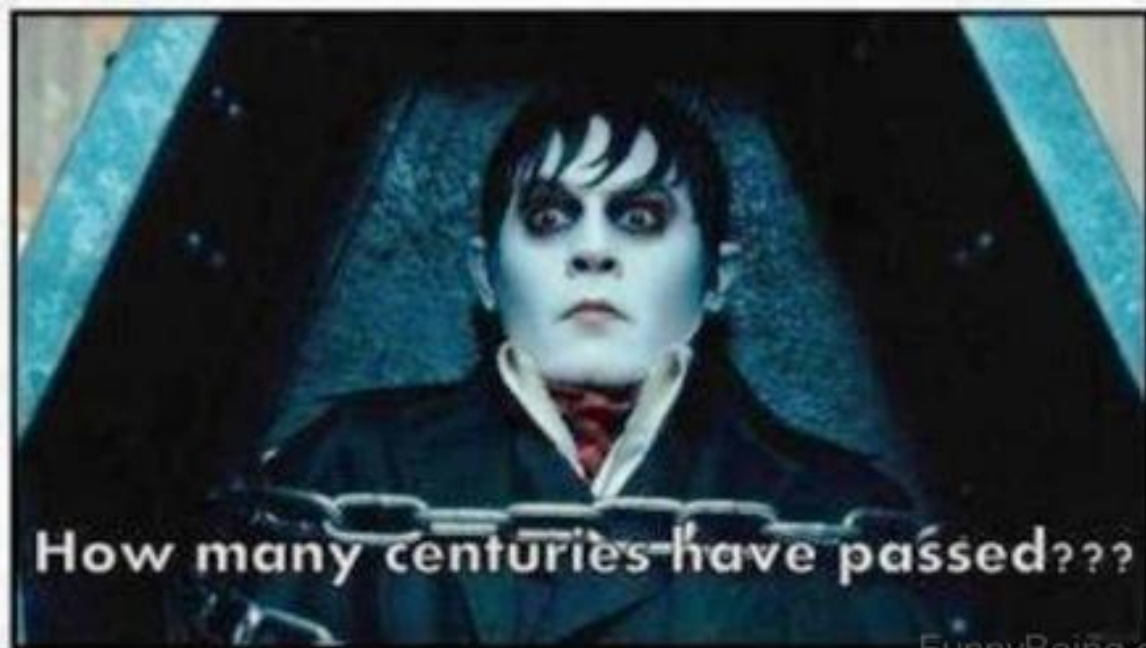
**While napping has its benefits, there are also problems associated with napping:**

**Sleep inertia**, which you may notice as grogginess and disorientation. This can come from waking from a deep (Stage 3 & 4) sleep, so typically will occur for people who nap longer than 20 minutes. Although these feelings usually only last 30 minutes or so, sleep inertia symptoms are more severe, and can last longer, in people who are sleep deprived or nap for longer periods.

Napping can also have a negative effect on other sleeping periods. A long nap or a nap taken too late in the day may make it hard to fall asleep, and can adversely affect the length and quality of nighttime sleep. If you have trouble sleeping at night, try to avoid daytime napping.

**How I feel when  
I wake up from my  
unexpected nap:**

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## How Long to Nap



### 10 to 20 Minutes

This power nap is ideal for a boost in alertness and energy, experts say. This length usually limits you to the lighter stages of non-rapid eye movement (NREM) sleep, making it easier to hit the ground running after waking up.

### 30 Minutes

Some studies show sleeping this long may cause sleep inertia, a hangover-like groggy feeling that lasts for up to 30 minutes after waking up, before the nap's restorative benefits become apparent.

### 60 Minutes

This nap is best for improvement in remembering facts, faces and names. It includes slow-wave sleep, the deepest type. The downside: some grogginess upon waking up.

### 90 Minutes

This is a full cycle of sleep, meaning the lighter and deeper stages, including REM (rapid eye movement) sleep, typically likened to the dreaming stage. This leads to improved emotional and procedural memory (i.e. riding a bike, playing the piano) and creativity. A nap of this length typically avoids sleep inertia, making it easier to wake up.

**You'll thank yourself for making time to sleep!**

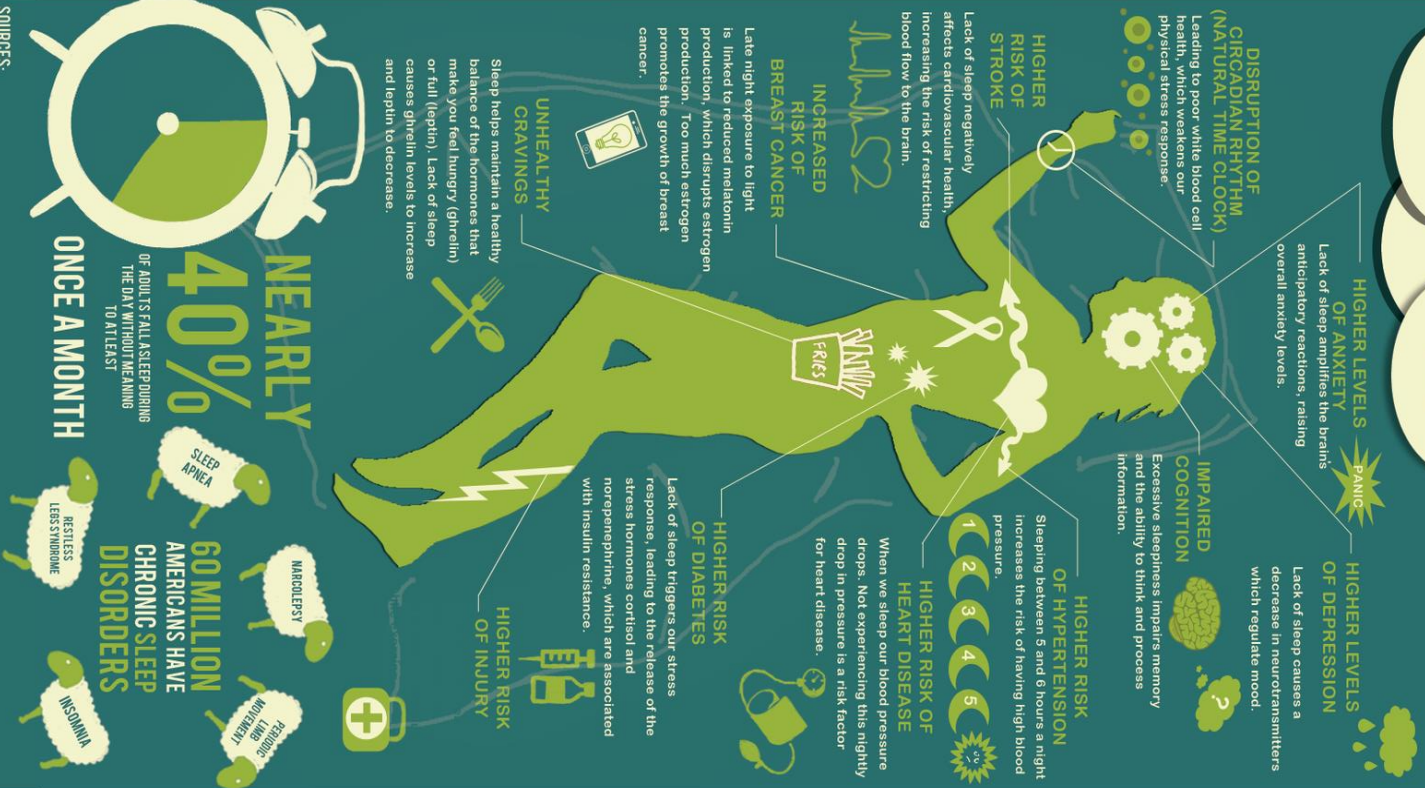




# THE DANGERS of SLEEP DEPRIVATION

By *Alisa*

Just one week of insufficient sleep alters the activity of our genes, which control our response to stress, immunity, inflammation and overall health. Here are the hidden health hazards caused by sleep deprivation.



## Sleep is more than a luxury! It's a Necessity!

As you can see from the infographic to the right, sleep deprivation is associated with a number of chronic diseases and conditions. It also impairs our ability to learn, remember and process new information. Not to mention the daytime sleepiness, difficulty concentrating and making decisions that can come with insufficient sleep!

Sleep deprivation is a common experience for college students (24 % of CC students reported sleep difficulties creating problems for them\*). Although the occasional all-nighter may be an inevitable part of many students' college experiences, most students can make changes in their typical habits, schedules and environments that would result in improved health, wellness and academic performance.

\*2017 American College Health Association National College health Assessment

### SOURCES:

<http://www.thebncentral.com/leep-dietorderofpriorityhowto6healthissues-that-arisefromsleep-deprivationbyperfection-risk-increase/>  
<http://www.nihlhi.nih.gov/health/health-topics/topics/sleepdisorders.htm>  
<http://www.medicinenet.com/script/main/art.asp>

You know what part  
I love about waking up?

None of it. let me sleep



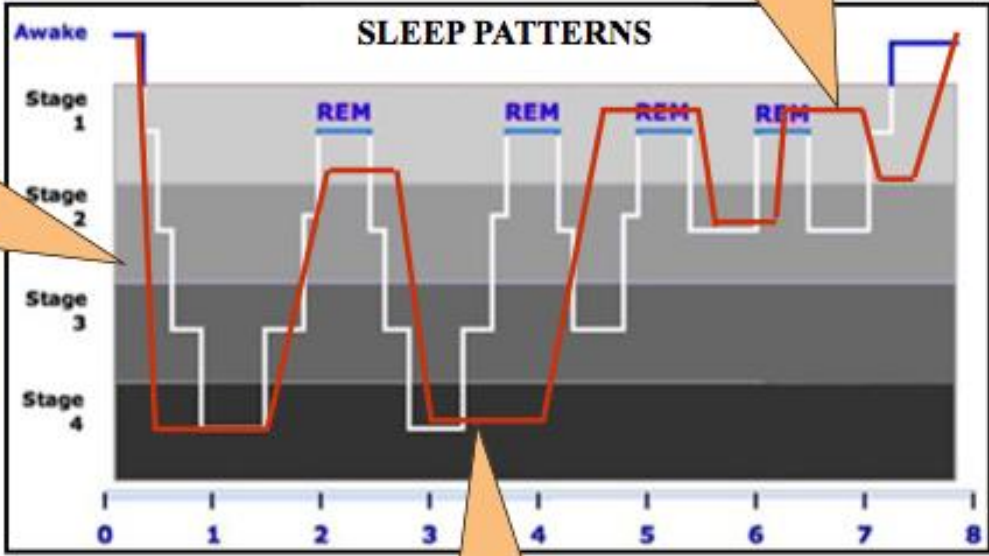




Alcohol has a biphasic affect on sleep patterns.

Drinking alcohol shortens sleep latency or decreases the time it takes to transition from full wakefulness to sleep.

The effect of alcohol on sleep is directly related to the amount you drink. The more you drink, the greater the negative effect on your sleep and experiences the next day.



REM Rebound: Drinking alcohol increases wakefulness and disturbs REM in the second half of the night.

Drinking alcohol increases slow wave sleep in the first half of the night.

Alcohol interacts with sleep restriction to increase daytime sleepiness and negatively impact cognitive & physical performance.

Normal sleep pattern: \_\_\_\_\_  
 Alcohol influenced: \_\_\_\_\_

Ref: Roehrs & Roth, 2001