

The Promise of Sleep

Adequate shut-eye is good for your brain.



Science has been telling us for years that sleep is important for both physical and emotional health, but for many it remains elusive. People who sleep fewer hours than recommended (7-8 hours), are at an increased risk of developing conditions such as obesity, diabetes, high blood pressure, and heart disease. Research also shows that sleep is vitally important for brain health as well.

Memory Boost

While our bodies slumber, our brains are busy strengthening connections between brain cells, transferring information from the hippocampus (responsible for short-term memory) to the neocortex (responsible for long-term memory). “This process essentially shifts memories and skills to a more efficient brain region so they become more stable and you can easily recall them, a process called memory consolidation,” explains Beth Malow, MD, MS, FAAN. Sleep not only protects memories from fading, it also makes them easier to access.

Toxin Remover

Perhaps the most important recent discovery about sleep and its effect on the brain is that it allows the brain a chance to do some much needed housekeeping. Specifically, when we’re sleeping, our brain’s glymphatic system—which clears waste from our brains—kicks into gear. It does this by releasing cerebrospinal fluid (CSF) that flushes toxins out.

When researchers looked at the flow of CSF through mice’s brains when they were both awake and asleep, the greatest amounts occurred when the rodents were slumbering. Sleeping mice also got rid of twice as much beta-amyloid, the plaque linked to Alzheimer’s disease, from their brains as conscious mice, according to the study. “We can’t prove that Alzheimer’s disease is caused by sleep deprivation, but it appears to be a factor,” says Erik Musiek, MD, PhD.

“We can’t say with certainty that consistently getting a good night’s sleep will reduce your risk of developing neurologic conditions...,” stresses Dr. Spira. “But we do know it can improve your daily functioning, your reaction time, and your cognitive abilities, which in turn improves your quality of life.”

Less Sleep, More Pain

According to a study, those who reported insomnia more than once a week had a 52 percent higher sensitivity to pain than those who never had trouble sleeping. “If you’re up all night, your brain becomes irritable and has trouble functioning, which makes you much more susceptible to pain’s effects,” explains Dr. Muziek.

The Promise of Sleep: Adequate shut-eye is good for your brain. Our experts explain why and how to get the amount you need. Retrieved from <https://www.brainandlife.org/the-magazine/article/app/13/1/17/the-promise-of-sleep-adequate-shut-eye-is-good-for>



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World Sleep Day® - March 15, 2019

National Sleep Awareness Week -
March 10-16, 2019

Almost 10 percent of Americans experience chronic insomnia, meaning they have trouble sleeping at least three nights per week.

5 Ways To Treat Insomnia

COGNITIVE BEHAVIOR THERAPY (CBT):

You learn how to control negative thoughts and worries that keep you awake at night and how to develop good sleep habits.

RELAXATION TRAINING: One technique focuses on tensing and relaxing muscles in different areas of your body one after the other to calm yourself and induce sleep. The other technique aims to prompt a relaxation response by having you lie comfortably, eyes closed, and focus on one peaceful word or image.

MINDFULNESS MEDITATION: You sit comfortably and focus on your breath, bringing yourself completely into the present and letting thoughts come in and out of your consciousness without engaging with any of them.

STIMULUS CONTROL: No reading, watching TV, eating, staying awake worrying, or clock-watching in bed. If you’ve been in bed awake for more than what feels like 20 minutes, you need to leave your bedroom and do another relaxing activity in other room.

MEDICATIONS: Prescription sleeping pills can help you get to sleep and stay that way, but doctors don’t recommend using them for more than six weeks at a time.

A Personal Message From Your Health Promotion Health Myth Busting Team



Dear Health Myth Busters,

After a long day's work, I want to wake up the next day feeling physically and mentally rejuvenated, but I heard that my brain never gets a break. Is this true? Does my brain not shut down when I sleep?

Sincerely,
Need a Brain Break

Dear Need a Brain Break,

This is true. Your brain can't catch a break. Despite the fact that your body rests during sleep, the brain remains active, gets "recharged," and still controls many body functions, including breathing. Sleep can be important to help consolidate memories and cognitive functioning. At bedtime, you shut down your computer, smartphone, and busy schedule, but for your brain, the workday is just getting started. In fact, your brain remains highly active throughout your sleep so it can perform a host of functions that keep you humming through the day.

While you sleep, your brain powers your dreams, relaxes you, boosts memory, and protects against illness. Here are just a few of the brain processes that occur while you sleep. Typically your thalamus goes offline during sleep, but during REM sleep, the thalamus reengages, sending images and sounds to your cortex which become part of your dreams. The brain stem, located at the base of the brain, sends out muscle-relaxing signals that temporarily paralyze the limbs to keep them from engaging during the night. Memories and newly learned skills are moved to more permanent regions of the brain while you sleep, making them easier to recall going forward. Whether you're studying for a test or simply need to remember your to-do list tomorrow, a good night's sleep will help. At night, your body produces an increased amount of a clear liquid called cerebrospinal fluid. This liquid moves through the brain, helping to flush out toxins that could potentially contribute to harmful diseases.

Even though the brain remains active when you're asleep, it takes time for it to complete the various tasks that keep you healthy. The brain thrives on a consistent sleep schedule, so aim for the recommended seven to eight hours each night. Find this information and read more about this topic at: <https://www.sleepfoundation.org/articles/debunking-sleep-myths-does-your-brain-shut-down-when-you-sleep> & <https://www.sleep.org/articles/brain-during-sleep/>.

Sincerely,
Health Myth Busters

Got questions on other health issues related to sleep health, physical activity, tobacco, or nutrition? Share them with us and we will help you "Bust The Myths!" Send your questions to usaf.jbsa.afmsa.mbx.hpo@mail.mil. Make sure to include in the subject line "Health Myth Buster." For more online health tips visit the Air Force Health Promotion webpage <https://www.airforcemedicine.af.mil/Resources/Health-Promotion/>

Community Events

HERE'S WHAT'S GOING ON WHERE YOU LIVE

Your Local Health Promotion Office



Contact:

Phone:

Email:

Monday	Tuesday	Wednesday	Thursday	Friday