



BRAIN HEALTH BOOST



Restorative Sleep is Key for Brain Health Across All Ages

*The Brain Health Initiative (BHI) is working to develop brain healthy communities, creating a culture that promotes brain health protective factors and decreases risk factors, thereby improving brain health, optimizing brain performance, and preventing and fighting brain illness across the lifespan for the Florida Suncoast region and beyond. **Today, we investigate what happens when our brains don't get enough restorative sleep and what to do about it.***

Your brain loves it when you get quality sleep, but not necessarily because it gets tired. According to BHI's faculty member Dr. Michael Breus, America's Sleep Doctor, there are things going on in your brain while you sleep that affect your mood, energy level, ability to learn and recall memories, problem-solving, creativity, and your overall health. Dr. Breus' new book is [Energize: Go From Dragging Ass to Kicking It in 30 Days](#).

The down sides to poor sleep are well-documented. Over time, sleep deprivation increases the risk of obesity, diabetes, high blood pressure, and heart disease. It also leaves us more vulnerable to mental health issues, like depression and anxiety.

You may be familiar with the different stages of sleep. We alternate through cycles of rapid-eye movement (REM) and three stages of non-REM sleep. During REM sleep, which is when we dream, there is heightened activity in the structures of the brain involved in memory and the regulation of emotion as well as other cognitive functions. The frontal brain systems where analytic thinking is located are less active during REM. In the first stage of non-REM sleep, the brain winds down from wakefulness to a slower pattern of brainwaves. The brainwaves slow further in the second stage of non-REM sleep, though there are bursts of electrical activity. The final stage of non-REM sleep is the deepest slumber and is essential for us to wake rested. Brain activity drops to its lowest level.

As we grow up, sleep is vital to development. Proper sleep helps infants strengthen their memories and process everything they experienced while awake. There is evidence that good sleep reduces the risk of obesity in later life. Research also reveals that young children who regularly get enough sleep have improved attention, behavior, learning, memory, and mental

and physical health.

In our teenage years, proper sleep enhances attention span and improves memory. Sleep deprivation has been linked to the increased risk of depression and behavioral problems, as well as development of diabetes and high blood pressure.

When we age, we have different needs and face additional challenges that can affect our sleep patterns. Older people have less REM sleep and can be more vulnerable to sleep disturbances, such as sleep apnea. In fact, sleep apnea increases amyloid, the protein associated with Alzheimer's disease, according to research.

So how do we treat our brains to a good night's sleep every night? A good idea is to begin keeping a sleep diary to track your sleep schedule for at least two weeks. You will be able to find links between the consistency of your sleep and your level of energy and brain abilities during the day. See BHI's "What You Can Do Today to Protect Your Brain Health" below for some concrete tips on increasing the quality of your sleep.

The [American Academy of Pediatrics](#) and the [Centers for Disease Control and Prevention \(CDC\)](#) offer these general sleep guidelines for different age groups:

Birth to 3 months: 14 to 17 hours
4 to 11 months: 12 to 16 hours
1 to 2 years: 11 to 14 hours
3 to 5 years: 10 to 13 hours
6 to 12 years: 9 to 12 hours
13 to 18 years: 8 to 10 hours
18 to 64 years: 7 to 9 hours
65 years and older: 7 to 8 hours

WHAT YOU CAN DO TODAY TO PROTECT YOUR BRAIN HEALTH

Having trouble drifting off to sleep or staying asleep most nights? BHI faculty member Dr. Michael Breus offered these suggestions in the [January issue of SRQ Magazine](#), assuming you've already tried counting sheep.

- **GET ON SCHEDULE.** Go to bed and awaken at the same time every day. Your body will find a restful rhythm.
- **WIND DOWN.** Consider meditation or progressive relaxation before bed or while falling asleep.
- **DON'T DRINK ALCOHOL, CAFFEINE LATE.** Alcohol, a depressant, can help you fall asleep, but it may interfere with your quality of sleep. Caffeine may prevent you from falling asleep.
- **TURN OFF BLUE LIGHT.** Televisions, computers and cell phones emit blue light, which can reduce sleep quality. Try to turn electronics off 90 minutes before bedtime.
- **WORK OUT, BUT EARLY IN THE DAY.** Exercise promotes sleep quality, but it can be stimulating if you do it later in the day, making it harder to fall asleep.
- **PRACTICE GOOD NUTRITION.** Balance protein and complex carbohydrates at each meal and avoid foods with high amounts of added sugars.
- **CLEAN UP.** Take a hot shower or bath about 90 minutes before bed. Your body temperature will decrease after you leave the water, helping to produce melatonin naturally.
- **CREATE A SLEEP-FRIENDLY PLACE.** Sleep is best in cool, dark and quiet environments, so set up your space accordingly.
- **SEE A DOCTOR.** If you are tired when you get up and often fall asleep during the day, and if you snore or your breathing stops occasionally while you sleep, you could have obstructive sleep apnea. Visit your primary care doctor or a sleep specialist for treatment.

BE BRAIN HEALTHY and adopt a lifestyle that includes thoughts, behaviors, emotions, responses, and language that promote brain health protective factors:

- Stress resilience
- Nutrition
- Physical activity
- Sleep
- Social connection
- Emotional wellbeing
- Meaning and Purpose
- Cognitive stimulation and creativity
- Engaging with nature
- General health
- Positive impacts

About the Brain Health Initiative (www.brainhealthinitiative.org)

The Brain Health Initiative (BHI), a 501(c)(3) nonprofit, uses a cutting-edge approach to protecting brain health, promoting brain performance, and preventing and fighting brain illness across the lifespan. The BHI is building brain healthy communities, cultures that foster brain health protective factors and address risk factors, thereby improving brain health and optimizing brain performance outcomes for the Florida Suncoast region and beyond. Join the ***Be Brain Healthy*** movement, ***because brain health matters, and lifestyle makes a difference.*** To view all Brain Health Boosts [click here](#).