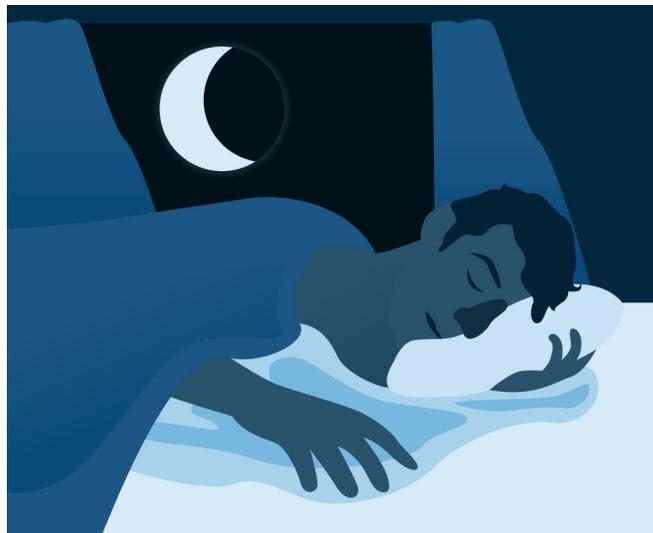


# Scientific Facts About Sleep

Lack of sleep is linked to motor vehicle crashes, industrial disasters, and medical errors, among many other serious consequences. But why is sleep important? And what is its impact on health?

Neuroscientist Jeff Iliff explains that the brain, like every other organ, has to rid itself of waste. Since it's the only organ that is not part of the lymphatic system (the body's waste cleaner) this can pose a challenge. In order to remove waste, the brain engages a powerful flushing system that uses the cerebrospinal fluid. But here's the catch: this cleaning process can only occur while a person is sleeping. In fact, since the cells of the brain shrink while the body is sleeping, the cerebrospinal fluid can be even more efficient at clearing out waste.

The Centers for Disease Control and Prevention (CDC) estimate that up to 70 million Americans have a sleep or wakefulness disorder. Their data indicates that adults who sleep less than the recommended 7 to 9 hours per night are more likely to have difficulty performing daily tasks. Sleep loss impairs cognitive function, attention span, and decision-making abilities. Plus, according to the National Heart, Lung, and Blood Institute (NHLBI), children and teens who are sleep deficient may have trouble getting along with other people because anger and mood swings increase when people are sleep deprived. Studies featured by the NHLBI indicate show that sleep deficiency is linked to depression, suicide, and risk-taking behavior, while getting a good night's sleep has been shown to improve learning, creativity, and problem solving.



While cognitive function is an obvious consequence of sleep, physical health relies on sleep too.

The heart and blood vessels are repaired during sleep. The NHLBI has revealed that sleep deficiency is linked to an increased risk of heart disease, kidney disease, high blood pressure, diabetes, and stroke. Getting adequate sleep, on the other hand, has been connected to a lower risk of obesity. Researchers have also found that sleep regulates the hunger hormones ghrelin and leptin. Ghrelin increases hunger feelings, while leptin is the hormone that increases satiety — that feeling of being full. The immune system is healthier when sleep is adequate and the fight against infections is more effective too.

Your brain needs sleep in order to function effectively, and the benefits of getting enough sleep are far-reaching. Heed the data on this page and make time for sleep!

*By Judy Doherty, PC II*

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