

Effects of sleep deprivation



Studies have shown that the optimum amount of sleep a person should get each night is seven to eight hours. Many people have trouble getting this amount of sleep. Between work, family obligations, and household chores, too often a person gets only a few hours of sleep a night. What effect does sleep deprivation have on people? Sleep deprivation has a definite effect on learning, memory, and the ability to think clearly. If a person is not able to get a full night's sleep after learning something new, he will not remember the new knowledge well. He will not fully assimilate the new ideas or task until he is able to go through a complete night of uninterrupted sleep cycles. Different parts of the brain are rested and regenerated during different phases of sleep. During some phases of sleep, the neurons in the cerebral cortex regenerate. If sleep is interrupted so that this regeneration cannot occur, speech may be affected, since the temporal lobe of the brain is what controls speech. People who do not get enough sleep often have slurred speech. There is also measurably less activity in their temporal lobes than in those of well-rested people. During REM sleep, memories are consolidated and categorized by the brain. New synaptic connections are also formed during REM sleep, aiding learning. If REM sleep is cut short, long-term memory may be affected and new knowledge might not be retained. Conversely, short-term memory might be better in the sleep deprived person because the part of the brain that controls short-term memory has never gone off-line, and the memories are still fresh. Sleep deprived people are much more accident-prone than well-rested people. This is partly due to the person being groggy or sleepy due to lack of rest. It is also partly due to the fact that sleep deprived people tend to fall into sleep for very brief periods at unforeseen times. These brief periods of sleep are the body's way of making

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up for its lack of sleep the night before. This is especially serious if the person is driving a car or operating a piece of machinery. The person deprived of sleep will find it difficult to concentrate. This will affect his performance at work and at household tasks. The person will also experience a lack of energy. He might not have the energy to complete everything he has to do during the day. The sleep-deprived person is likely to be quite irritable. This irritability is likely to damage both personal and business relationships. Lack of sleep has several physical effects also. People who are chronically short of sleep have a tendency to gain weight. This weight gain can cause or exacerbate heart disease and diabetes. The body of a sleep deprived person produces less growth hormones, meaning that a sleep-deprived child might not grow and develop as he should. The immune system is weakened since the body has not had the chance to rest and repair itself. After several weeks of severe sleep deprivation, a person might start seeing hallucinations. People have died of severe sleep deprivation in as little as four to five weeks. Sleep is as essential to the body and the mind as air and water.