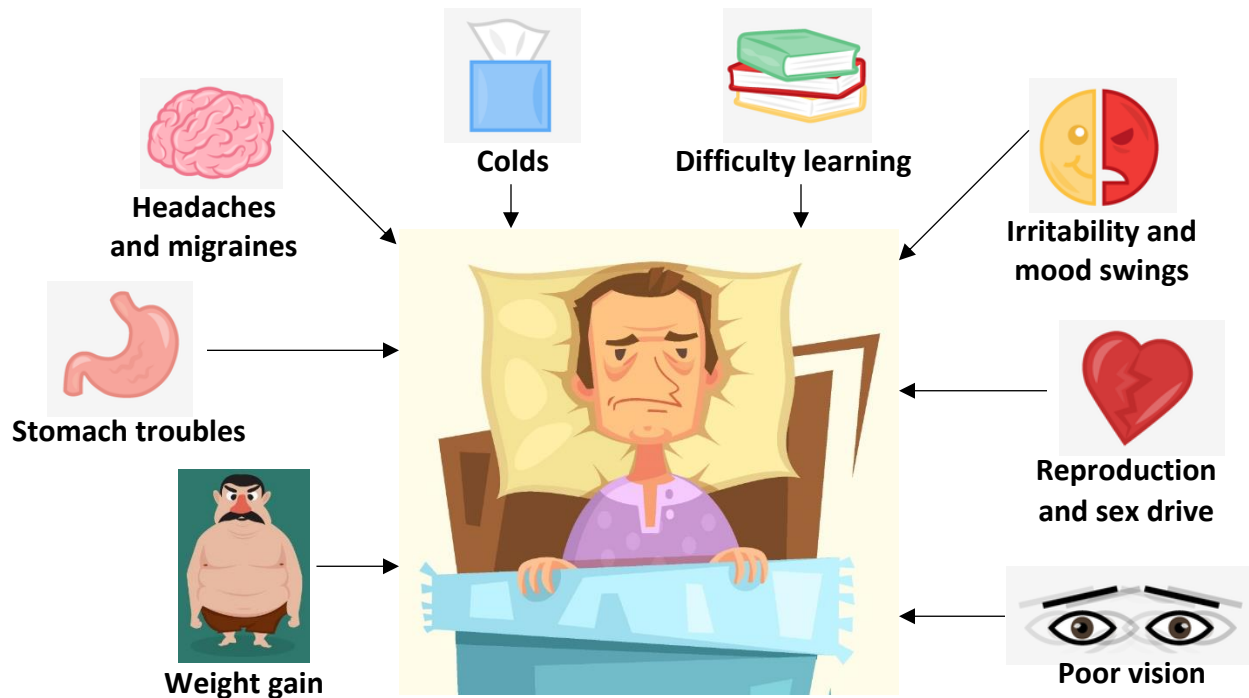


Health Problems Associated with Lack of Sleep

It is common knowledge that if you lose sleep, you lose your mind as well as your health. The well-known health problems associated with sleep deprivation and insomnia are:



Lose Sleep: Lose Health and Mental Peace

Images by the macro vector (freepik.com and Business Insider)

1. **Impaired mental function.** Sleep plays a critical role in thinking and learning. Lack of sleep impairs attention, alertness, concentration, reasoning, creativity, memory, and problem-solving skills. Sleep removes the toxic waste from the brain, including amyloid protein. Accumulation of the amyloid protein in the brain causes loss of memory, as occurs in dementia and Alzheimer's disease.
2. **Overweight and obesity.** Sleeping less than 6 hours and staying awake past midnight with loss of deep sleep leads to weight gain. Sleep deprivation and staying up late at night affects the levels of hunger and satiety hormones ghrelin and leptin. The hormone ghrelin from the empty stomach stimulates the brain to create hunger signals. In contrast, the leptin hormone produced by fat cells sends the message of fullness to the brain. Late sleepers have high ghrelin levels and low leptin levels, which set up a vicious cycle of overeating. Late-night eating promotes junk food eating out of necessity, further adding up to weight gain. Several studies have shown that a long-term lack of sleep of as little as 1-2 hours a day leads to 10-15 kg weight gain.

3. **Risk of type 2 diabetes.** Sleep loss increases the level of the stress hormone cortisol. High cortisol level interferes with glucose balance and makes it harder for the glucose utilization hormone insulin to do its job effectively. The net effect is increased glucose in the blood and an increased risk of developing diabetes.
4. **Heart and blood pressure problems.** Poor sleep quality increases the risk of heart attack, irregular heartbeat (called atrial fibrillation), high blood pressure, heart failure, and stroke.
5. **Headache and migraine.** Sleep deprivation and insomnia are the most common causes of headaches and migraines. These are an epidemic in modern city dwellers.
6. **Joint pain.** Poor sleep for several days can cause joint pains in the morning. Deep sleep plays a vital role in rest, repair, and rejuvenation via the secretion of growth hormone. Lack of sleep affects balance and coordination, making one more prone to falls and other accidents.
7. **Mood disorders.** Poor sleep leads to depression and negative mood with increased irritability, anger, and hostility.
8. **Sleep and cancer.** Lack of sleep raises the risk of a variety of cancers (prostate, oral, nasal, colorectal, and breast). The sleep hormone melatonin is at the highest level during sleep. Melatonin is a powerful antioxidant. There is a highly credible scientific evidence which supports that melatonin inhibits cancer cells and increases the sensitivity of the tumors to the cancer therapies.
9. **Immune system.** Good rejuvenating sleep makes the immune system robust. Lack of sleep raises the risk of frequent colds. It is also a risk factor for autoimmune diseases like rheumatoid arthritis, lupus, and more. The healthy immune system also kills the cancer cells at the outset.
10. **Fertility.** Sleep deprivation and insomnia affect both male and female fertility and libido. Long-term sleep deprivation in women affects the release of luteinizing hormone, which triggers ovulation. The rhythm of testosterone secretion in men is affected by a lack of sleep. Recent studies show that men who are late sleepers and sleep poorly have a low sperm count and decreased sperm motility.
11. **Sleep and skin health.** The growth hormone released during the period of rejuvenating sleep repairs the daily damage to the skin. Lack of sleep produces an increased level of the stress hormone cortisol. Excess of cortisol accelerates skin aging, increases breakouts of acne, and rosacea (reddening of the skin on the face). The dark circles around the eyes are typical of persistent sleep deprivation. Beauty experts know that there is no better beauty aid for skin than the rejuvenating deep sleep.