

Effect of Poor Sleep on Health

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DESCRIPTION

Sleep is essential to life and overall health. Most of us need about 8 hours of quality sleep to function properly. Lack of sleep can have a serious impact on our health and mental health. Too little sleep can lead to poor mood, lack of concentration, irritability and malaise.

The long-term health effects associated with sleep deprivation are high blood pressure, diabetes, obesity, and heart disease, which can lead to a decrease in life expectancy.

The most common types of sleep disorders are sleep apnea, insomnia, narcolepsy, restless legs syndrome, sleep paralysis, and Kleine-Levin syndrome. Of all sleep disorders, sleep apnea is the most common type of disorder. There are three types of sleep apnea: obstructive sleep apnea, central sleep apnea, and mixed sleep apnea.

Poor sleep may lead to obesity

Sleep deprivation is now considered a potential risk factor for obesity, along with two of the most commonly identified risk factors: lack of exercise and overeating. During sleep, our body releases hormones that help control appetite, energy metabolism, and glucose processing. If you sleep too little, these hormones and other hormones will be out of balance. For example, lack of sleep leads to increased production of cortisol, often called the stress hormone. Poor sleep is also associated with increases in the secretion of insulin following a meal. Insulin is a hormone that regulates the processing of glucose and promotes the accumulation of fat. Higher insulin levels are associated with weight gain, a risk factor for diabetes. Sleep deprivation is also associated with low levels of leptin, a hormone that tells the brain that there is enough food and high levels of ghrelin, a biochemical that stimulates appetite. As a result, lack of sleep can lead to a thirst for food, even after consuming enough calories. We may also be more likely to eat candy-like foods that satisfy our thirst for a rapid explosion of energy. In addition, lack of sleep can make you too tired to burn extra calories through exercise.

Sleep and mood changes

Sleepless nights can be frustrating and change your mood all day long. Chronic conditions can lead to long-term mood disorders. Chronic sleep disorders associated with depression, anxiety and psychological stress.

Poor sleep may lead to hypertension and heart diseases

In Obstructive Sleep Apnea (OSA), frequent awakenings and lack of sleep in patients result in intermittent hypoxemia and carbon dioxide retention. This acute hypoxemia can trigger a variety of pathophysiological responses that lead to sympathetic nerve activation. Hypoxemia also activates systemic inflammatory pathways, increases levels of C-reactive proteins, plasma cytokines, increases lymphocyte activation, and induces endothelin-1 release in the human endothelium. All of these factors together contribute to the development of atheroma. There was a strong correlation between AHI and atherosclerotic plaque volume measured by intravascular ultrasound imaging.

OSA also causes changes in intrathoracic pressure. Airway obstruction increases inspiratory effort, increases transmural gradients across the atrium, ventricles, and aorta, can disrupt ventricular function and impair diastolic function. These changes in the heart can contribute to atrial fibrillation and heart failure.

CONCLUSION

Considering numerous potential negative health effects of sleep deprivation, it is not surprising that sleep deprivation leads to a decrease in life expectancy. OSA is a serious condition that causes some cardiovascular and cerebrovascular diseases. Whether treatment with OSA reduces cardiovascular risk and improves outcomes is still controversial.

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