

# The Science of Sleep: Exploring Common Sleep Disorders

Abdel Khader\*

Department and Oral Maxillofacial Surgery, University of Alsalam, Baghdad, Iraq

## DESCRIPTION

Sleep is a fundamental aspect of human life, essential for physical and mental well-being. However, for millions of people worldwide, sleep does not come easily. Sleep disorders, a group of conditions that disrupt normal sleep patterns, can have a profound impact on an individual's quality of life. In this article, we will explore the various types of sleep disorders, their causes, and potential treatments, shedding light on the importance of understanding and addressing these issues [1-3].

### The prevalence of sleep disorders

Sleep disorders are more common than you might think. According to the American Sleep Association, approximately 50 to 70 million adults in the United States alone suffer from a sleep disorder. Furthermore, a study published in *The Lancet Respiratory Medicine* estimates that sleep disorders affect up to 45% of the world's population [4].

### Types of sleep disorders

**Insomnia:** Insomnia is the most prevalent sleep disorder and is characterized by difficulty falling asleep or staying asleep, despite the opportunity to sleep. Chronic insomnia can lead to daytime fatigue, mood disturbances, and impaired cognitive function.

**Sleep apnea:** Sleep apnea is a condition in which a person's breathing repeatedly stops and starts during sleep. This disruption can lead to loud snoring, excessive daytime sleepiness, and an increased risk of cardiovascular problems.

**Narcolepsy:** Narcolepsy is a neurological disorder characterized by sudden, uncontrollable bouts of sleep during the day. People with narcolepsy often experience vivid dreams and muscle weakness triggered by strong emotions.

**Restless Legs Syndrome (RLS):** RLS is a condition characterized by an irresistible urge to move the legs, often accompanied by uncomfortable sensations such as tingling or crawling. These symptoms typically worsen at night, making it difficult to fall asleep.

**Circadian rhythm disorders:** These disorders result from a

misalignment between an individual's internal body clock and the external environment. Conditions like shift work disorder and jet lag fall into this category.

**Parasomnias:** Parasomnias are abnormal behaviors or experiences during sleep. They include sleepwalking, night terrors, and sleep-related eating disorder.

**Hypersomnia:** Hypersomnia refers to excessive daytime sleepiness that can lead to uncontrollable sleep episodes during the day, even after a full night's rest [5-7].

### Causes of sleep disorders

Sleep disorders can have various underlying causes, including:

**Medical conditions:** Conditions like obesity, diabetes, and heart disease can increase the risk of sleep disorders.

**Mental health issues:** Anxiety, depression, and stress can disrupt sleep patterns.

**Medications:** Certain medications, including antidepressants and antihypertensives, may interfere with sleep.

**Lifestyle factors:** Poor sleep hygiene, irregular sleep schedules, and excessive caffeine or alcohol consumption can contribute to sleep disorders.

**Genetics:** Some sleep disorders, like narcolepsy, may have a genetic component [8].

### Treatment options

The treatment of sleep disorders varies depending on the type and severity of the condition. Some common approaches include:

**Lifestyle modifications:** Practicing good sleep hygiene, maintaining a consistent sleep schedule, and avoiding caffeine and alcohol close to bedtime can help alleviate some sleep disorders.

**Cognitive Behavioral Therapy (CBT):** CBT for insomnia is a structured program that helps individuals identify and change the thoughts and behaviors that contribute to sleep problems.

**Correspondence to:** Abdel Khader, Department and Oral Maxillofacial Surgery, University of Alsalam, Baghdad, Iraq; E-mail: abdel086@gmail.com

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**Medications:** In some cases, healthcare providers may prescribe medications to manage sleep disorders. These include sedatives for insomnia, Continuous Positive Airway Pressure (CPAP) devices for sleep apnea, and stimulants for narcolepsy.

**Surgery:** Surgical interventions may be necessary for severe cases of sleep apnea or other anatomical issues that obstruct normal breathing during sleep.

**Light therapy:** This treatment can help individuals with circadian rhythm disorders reset their internal body clock [9-10].

## CONCLUSION

Sleep disorders are complex conditions that can significantly impact an individual's physical and mental health. Understanding the various types of sleep disorders, their causes, and available treatment options is essential for improving the quality of life for those affected. If you or someone you know is struggling with a sleep disorder, it is crucial to seek medical advice and explore appropriate interventions to achieve better sleep and overall well-being.

## REFERENCES

1. Lin CY, Tsai SJ, Peng CK, Yang AC. Sleep state instabilities in patients with periodic limb movements in sleep-Detection and quantification with heart rate variability. *Psychiatry Res.* 2020; 293:113454.
2. Kendzerska T, Kamra M, Murray BJ, Boulos MI. Incident cardiovascular events and death in individuals with restless legs syndrome or periodic limb movements in sleep: A systematic review. *Sleep.* 2017; 40(3).
3. Winkelman JW, Blackwell T, Stone K, Ancoli-Israel S, Redline S. Associations of incident cardiovascular events with restless legs syndrome and periodic leg movements of sleep in older men, for the outcomes of sleep disorders in older men study (MrOS Sleep Study). *Sleep.* 2017; 40(4):zxx023.
4. Xie J, Chahal CA, Covassin N, Schulte PJ, Singh P, Srivali N, et al. Periodic limb movements of sleep are associated with an increased prevalence of atrial fibrillation in patients with mild sleep-disordered breathing. *Int J Cardiol.* 2017; 241:200-204.
5. May AM, May RD, Bena J, Wang L, Monahan K, Stone KL, et al. Individual periodic limb movements with arousal are temporally associated with nonsustained ventricular tachycardia: A case-crossover analysis. *Sleep.* 2019; 42(11):zsz165.
6. Claman DM, Ewing SK, Redline S, Ancoli-Israel S, Cauley JA, Stone KL. Periodic leg movements are associated with reduced sleep quality in older men: The MrOS Sleep Study. *J Clin Sleep Med.* 2013;9(11):1109-1117.
7. Mortara A, Sleight P, Pinna GD, Maestri R, Capomolla S, Febo O, et al. Association between hemodynamic impairment and Cheyne-Stokes respiration and periodic breathing in chronic stable congestive heart failure secondary to ischemic or idiopathic dilated cardiomyopathy. *Am J Card.* 1999; 84(8):900-904.
8. Bitter T, Langer C, Vogt J, Lange M, Horstkotte D, Oldenburg O. Sleep-disordered breathing in patients with atrial fibrillation and normal systolic left ventricular function. *Dtsch rztebl Int.* 2009; 106(10):164.
9. Spiesshoefer J, Spieker M, Klose S, Keymel S, Boentert M, Krueger S, et al. Reduction of sleep-disordered breathing following effective percutaneous mitral valve repair with the MitraClip system. *Sleep Breath.* 2019; 23:815-824.
10. Javed F, Tamisier R, Pepin JL, Cowie MR, Wegscheider K, Angermann C, et al. Association of serious adverse events with Cheyne-Stokes respiration characteristics in patients with systolic heart failure and central sleep apnoea: A SERVE-Heart Failure sub study analysis. *Respirology.* 2020; 25(3):305-311.