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# The Study of Impulsive Sleep and Narcolepsy

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**Opinion** Article

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# Description

Narcolepsy is a chronic neurological disorder that affects the sleepwake cycle, resulting in excessive sleepiness during the day and other characteristic symptoms. This condition can significantly impact the quality of life and daily functioning of individuals with narcolepsy.

#### Understanding narcolepsy

Narcolepsy is a disorder that affects the regulation of sleep-wake cycles in the brain. It is characterized by Excessive Daytime Sleepiness (EDS), which can manifest as irresistible sleep attacks during the day, even in inappropriate situations such as while driving or working. Individuals with narcolepsy often experience sudden and uncontrollable bouts of sleepiness, which can significantly disrupt their daily activities.

#### Symptoms of narcolepsy

The hallmark symptom of narcolepsy is EDS. Other common symptoms include cataplexy, which is a sudden loss of muscle tone triggered by strong emotions, such as laughter or anger; sleep paralysis, which is the inability to move or speak upon awakening or falling asleep; and hypnagogic or hypnopompic hallucinations, which are vivid, dream-like experiences that occur during the transition between wakefulness and sleep. These symptoms can have a profound impact on the physical, emotional and social well-being of individuals with narcolepsy.

#### **Causes of narcolepsy**

The exact cause of narcolepsy is not yet fully understood. However, research suggests that it may involve a combination of genetic and

environmental factors. Narcolepsy has been associated with a deficiency of a neurotransmitter called hypocretin or orexin, which regulates wakefulness and sleep. It is believed that an autoimmune process may destroy the cells that produce hypocretin in the brain, leading to the development of narcolepsy in some cases. Other factors, such as certain infections, hormonal changes and brain injuries, may also play a role in the development of narcolepsy.

### **Diagnosis of narcolepsy**

Diagnosing narcolepsy can be challenging, as its symptoms can overlap with other sleep disorders and medical conditions. A thorough evaluation, including a detailed medical history, physical examination and sleep studies, is typically conducted to arrive at a diagnosis. Polysomnography (PSG), a sleep study that measures brain activity, eye movements, muscle tone and other physiological parameters during sleep, is often performed to evaluate the quality and quantity of sleep. Multiple Sleep Latency Test (MSLT), a daytime sleep study, is also commonly used to assess the tendency to fall asleep during the day. These tests can help confirm the presence of narcolepsy and differentiate it from other sleep disorders.

#### Management of narcolepsy

Although narcolepsy is a chronic condition without a cure, its symptoms can be effectively managed with a combination of medical, behavioral and lifestyle interventions. Medications, such as stimulants to promote wakefulness during the day and antidepressants or sodium oxybate to manage cataplexy and other symptoms, may be prescribed by healthcare professionals. Behavioral interventions, such as establishing a regular sleep schedule, taking short naps strategically and avoiding triggers that may worsen symptoms, can also be helpful. In addition, lifestyle modifications, such as practicing good sleep hygiene, managing stress and engaging in regular exercise, may contribute to better sleep quality and overall well-being for individuals with narcolepsy.

# Conclusion

Narcolepsy is a complex and chronic sleep disorder characterized by excessive daytime sleepiness, cataplexy, sleep paralysis and hypnagogic/hypnopompic hallucinations. Although the exact cause of narcolepsy is not fully understood, it is believed to involve a combination of genetic and environmental factors. Diagnosis of narcolepsy requires a thorough evaluation, including medical history, physical examination and sleep studies. While there is no cure for narcolepsy, its symptoms can be effectively managed with a combination of medications, behavioral interventions and lifestyle modifications.

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