



Narcolepsy

Overview

Narcolepsy is a chronic sleep disorder characterized by overwhelming daytime drowsiness and sudden attacks of sleep. People with narcolepsy often find it difficult to stay awake for long periods of time, regardless of the circumstances. Narcolepsy can cause serious disruptions in your daily routine.

Sometimes, narcolepsy can be accompanied by a sudden loss of muscle tone (cataplexy), which can be triggered by strong emotion. Narcolepsy that occurs with cataplexy is called type 1 narcolepsy. Narcolepsy that occurs without cataplexy is known as type 2 narcolepsy.

Narcolepsy is a chronic condition for which there's no cure. However, medications and lifestyle changes can help you manage the symptoms. Support from others — family, friends, employers, teachers — can help you cope with narcolepsy.

Symptoms

The signs and symptoms of narcolepsy may worsen for the first few years and then continue for life. They include:

- **Excessive daytime sleepiness.** People with narcolepsy fall asleep without warning, anywhere, anytime. For example, you may be working or talking with friends and suddenly you nod off, sleeping for a few minutes up to a half-hour. When you awaken, you feel refreshed, but eventually you get sleepy again.

You may also experience decreased alertness and focus throughout the day. Excessive daytime sleepiness usually is the first symptom to appear and is often the most troublesome, making it difficult for you to concentrate and fully function.

- **Sudden loss of muscle tone.** This condition, called cataplexy (KAT-uh-plek-see), can cause a number of physical changes, from slurred speech to complete weakness of most muscles, and may last up to a few minutes.

Cataplexy is uncontrollable and is triggered by intense emotions, usually positive ones such as laughter or excitement, but sometimes fear, surprise or anger. For example, when you laugh, your head may droop uncontrollably or your knees may suddenly buckle.

Some people with narcolepsy experience only one or two episodes of cataplexy a year, while others have numerous episodes daily. Not everyone with narcolepsy experiences cataplexy.

- **Sleep paralysis.** People with narcolepsy often experience a temporary inability to move or speak while falling asleep or upon waking. These episodes are usually brief — lasting a few seconds or minutes — but can be frightening. You may be aware of the condition and have no difficulty recalling it afterward, even if you had no control over what was happening to you.

This sleep paralysis mimics the type of temporary paralysis that normally occurs during a period of sleep called rapid eye movement (REM) sleep. This temporary immobility during REM sleep may prevent your body from acting out dream activity.

Not everyone with sleep paralysis has narcolepsy, however. Many people without narcolepsy experience some episodes of sleep paralysis.

- **Changes in rapid eye movement (REM) sleep.** REM sleep is typically when most dreaming happens. REM sleep can occur at any time of the day in people with narcolepsy. People with narcolepsy often transition quickly to REM sleep, usually within 15 minutes of falling asleep.
- **Hallucinations.** These hallucinations are called hypnagogic hallucinations if they happen as you fall asleep and hypnopompic hallucinations if they occur upon waking. An example is feeling as if there is a stranger in your bedroom. These hallucinations may be particularly vivid and frightening because you may not be fully asleep when you begin dreaming and you experience your dreams as reality.

Other characteristics

People with narcolepsy may have other sleep disorders, such as obstructive sleep apnea — a condition in which breathing starts and stops throughout the night — restless legs syndrome and even insomnia.

Some people with narcolepsy experience automatic behavior during brief episodes of narcolepsy. For example, you may fall asleep while performing a task you normally perform, such as writing, typing or driving, and you continue to perform that task while asleep. When you awaken, you can't remember what you did, and you probably didn't do it well.

When to see a doctor

See your doctor if you experience excessive daytime sleepiness that disrupts your personal or professional life.

Causes

The exact cause of narcolepsy is unknown. People with type 1 narcolepsy have low levels of the chemical hypocretin (hi-poe-KREE-tin). Hypocretin is an important neurochemical in your brain that helps regulate wakefulness and REM sleep.

Hypocretin levels are particularly low in those who experience cataplexy. Exactly what causes the loss of hypocretin-producing cells in the brain isn't known, but experts suspect it's due to an

autoimmune reaction.

It's also likely that genetics play a role in the development of narcolepsy. But the risk of a parent passing this disorder to a child is very low — only about 1 percent.

Research also indicates a possible association with exposure to the swine flu (H1N1 flu) virus and a certain form of H1N1 vaccine that's currently administered in Europe, though it's not yet clear why.

Normal sleep pattern vs. narcolepsy

The normal process of falling asleep begins with a phase called non-rapid eye movement (NREM) sleep. During this phase, your brain waves slow considerably. After an hour or so of NREM sleep, your brain activity changes, and REM sleep begins. Most dreaming occurs during REM sleep.

In narcolepsy, however, you may suddenly enter into REM sleep without first experiencing NREM sleep, both at night and during the day. Some of the characteristics of narcolepsy — such as cataplexy, sleep paralysis and hallucinations — are similar to changes that occur in REM sleep, but occur during wakefulness or drowsiness.

Risk factors

There are only a few known risk factors for narcolepsy, including:

- **Age.** Narcolepsy typically begins in people between 10 and 30 years old.
- **Family history.** Your risk of narcolepsy is 20 to 40 times higher if you have a family member who has narcolepsy.

Complications

- **Public misunderstanding of the condition.** Narcolepsy may cause serious problems for you professionally and personally. Others might see you as lazy or lethargic. Your performance may suffer at school or work.
- **Interference with intimate relationships.** Intense feelings, such as anger or joy, can trigger signs of narcolepsy such as cataplexy, causing affected people to withdraw from emotional interactions.
- **Physical harm.** Sleep attacks may result in physical harm to people with narcolepsy. You're at increased risk of a car accident if you have an attack while driving. Your risk of cuts and burns is greater if you fall asleep while preparing food.
- **Obesity.** People with narcolepsy are more likely to be overweight. The weight gain may be related to a low metabolism.

By Mayo Clinic Staff

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