



GWINNETT SLEEP

SLEEP DISORDERS CENTER OF GWINNETT PULMONARY GROUP

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NARCOLEPSY

Narcolepsy is a neurological disorder caused by the brain's inability to regulate sleep-wake cycles normally. The main features of narcolepsy are excessive daytime sleepiness and cataplexy. The disease is also often associated with sudden sleep attacks, insomnia, dream-like hallucinations, and a condition called sleep paralysis. Its prevalence in the developed world is approximately the same as that of multiple sclerosis or Parkinson's disease.

In order to understand the basics of narcolepsy, it is important to first review the features of "normal sleep." Sleep happens in cycles. When we fall asleep, we initially enter a light stage of sleep and then progress into increasingly deeper stages. Both light and deep sleep stages are called non-REM (rapid eye movement) sleep. After about 90 minutes, we enter the first stage of REM sleep, which is the dreaming portion of sleep, and throughout the night we alternate between stages of REM and non-REM sleep. For people with narcolepsy, sleep begins almost immediately with REM sleep and fragments of REM occur involuntarily throughout the waking hours. When you consider that during REM sleep our muscles are paralyzed and dreaming occurs, it is not surprising that narcolepsy is associated with paralysis, hallucinations, and other dream-like and dramatically debilitating symptoms.

Despite the perception that people with narcolepsy are perpetually sleepy, they do not typically sleep more than the average person. Narcolepsy is considered a "state boundary" control abnormality. That is, narcolepsy patients sleep a normal amount but cannot control the timing of sleep.

Narcolepsy affects both sexes equally and develops with age; symptoms usually first develop in adolescence or young adulthood and may remain unrecognized as they gradually develop. The instance of a familial connection with narcolepsy is quite small but a combination of genetic and environmental factors may be at the root of this sleep disorder.

Narcolepsy patients typically endure many years of daytime sleepiness before seeking treatment because sleepiness is not indicative of disease to most people. Yet the devastating potential of this disorder is reflected in studies showing that narcoleptic patients are more accident-prone and have difficulty with interpersonal relationships.

Researchers believe that narcolepsy may be caused by a deficiency in hypocretin production in the brain. The results of one recent study, in which hypocretin was directly administered to the brain, suggest that using hypocretin derivatives may be an effective way to prevent cataplexy and improve wakefulness.