

Narcolepsy: causes, symptoms and diagnosis

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When looking at the causes of narcolepsy they are not known. As time advances scientists have made progress toward identifying genes strongly correlated with the disorder. One of the main roles these specific genes play is controlling the production of chemicals in the brain that may signal sleep and awake cycles. It is also believed by experts that narcolepsy may be correlated with a deficiency in the production of a chemical called hypocretin by the brain. In addition, researchers have recently discovered deformities in various parts of the brain involved in regulating REM sleep. These abnormalities and deformities apparently contribute to symptom development. According to experts, it is considered that narcolepsy involves multiple factors that collaborate to cause neurological dysfunction and “REM” sleep disturbances.

The Symptoms of narcolepsy include: Excessive daytime sleepiness (EDS), Cataplexy, Hallucinations and Sleep paralysis. In a broad aspect, EDS hinders and interferes with normal activities on a daily basis, whether or not a person with narcolepsy has ample sleep at night. It is also noted that people with EDS report mental cloudiness, along with a lack of energy and concentration, memory lapses, a depressed mood, and/or extreme exhaustion. The second symptom includes Cataplexy.

This symptom consists of a sudden and abrupt loss of muscle tone that leads to feelings of “weakness” and the loss of voluntary muscle control. The symptoms ranging from slurred speech to total body collapse, depending on the specific muscles involved, and are often generated by intense emotions such as laughter, surprise or anger. Hallucinations are the third symptom.

Oftentimes these delusional experiences are “vivid” and frequently frightening. The main content is primarily visual, but any of the other senses can be involved as well. These are called “hypnagogic hallucinations” when accompanying sleep onset and hypnopompic hallucinations when they occur during awakening. Lastly sleep paralysis, this symptom involves the brief inability to move or speak while falling asleep or waking up. These episodes are generally very short, lasting a few seconds to several minutes. Once episodes end, people quickly recover their full capacity and ability to move and speak. To properly diagnosis narcolepsy, a physical exam and extensive medical history are crucial for proper diagnosis of narcolepsy. However, what makes narcolepsy so hard to diagnosis is that the major symptoms are not exclusive to narcolepsy.

There is a need for several specialized tests, which can be completed in a sleep disorders clinic or sleep lab, usually these are required before a diagnosis can be established. Two tests that are considered fundamental in confirming a diagnosis of narcolepsy. These two test are the “polysomnogram (PSG)” and the multiple sleep latency test (MSLT). The PSG is typically an overnight test that takes continuous multiple measurements while a patient is asleep to document abnormalities in the sleep cycle. A PSG can help show whether “REM” sleep happens at abnormal times in the sleep cycle and can eliminate the possibility that an individual’s symptoms result from another condition. The MSLT is performed during the day to measure a person’s tendency to fall asleep and to determine whether isolated elements of REM sleep intrude at inappropriate times during the waking hours. As part

of the test, an individual is asked to take four or five short naps usually scheduled two hours apart.