What is Restless Legs Syndrome?

Restless Legs Syndrome (RLS) is a neurological condition causing throbbing, pulling, creeping, or other unpleasant sensations in the legs and an uncontrollable, and sometimes overwhelming, urge to move them.
Symptoms seem to occur mostly at night when a person is relaxing or at rest and can increase in severity during the night. Moving the legs relieves the discomfort. The sensations range in severity from uncomfortable to irritating to painful.
Lying down and trying to relax seems to activate the symptoms. Most people with RLS have difficulty falling asleep and staying asleep. Left untreated, the condition will cause Excessive Daytime Sleepiness. Many people with RLS report that their job, personal relations, and activities of daily living are strongly affected because of their sleep deprivation. They are often unable to concentrate, have impaired memory, or fail to accomplish daily tasks. It also can make traveling difficult and can cause depression.
While there are no 'hard' figures available, it is estimated that up to 10%10 of the population may have RLS. Studies in the USA indicate that moderate to severe RLS affects approximately 2-3% of adults. An additional 5% appear to be affected by a milder form. While RLS is not as common in children, it does exist. In the USA Childhood RLS is estimated to affect almost 1 million school-age children.
Some people with RLS will not seek medical attention, believing that they will not be taken seriously, that their symptoms are too mild, or that their condition is not treatable. Some physicians wrongly attribute the symptoms to nervousness, insomnia, stress, arthritis, muscle cramps, or aging.
RLS occurs in both men and women, although the incidence is about twice as high in women. It may begin at any age. Many individuals who are severely affected are middle-aged or older, and the symptoms typically become more frequent and last longer with age.
RLS is classified as a movement disorder, as individuals are forced to move their legs to gain relief from symptoms.
Some people with RLS also experience a more common condition known as Periodic Limb Movement Disorder(PLMD). PLMD causes involuntary leg twitching or jerking movements during sleep that typically occur every 15 to 40 seconds, sometimes throughout the night. The symptoms cause repeated awakening and severely disrupted sleep. Most people with PLMD do not experience RLS. PLMD.

Symptoms
People with RLS feel uncomfortable sensations in their legs, especially when sitting or lying down, accompanied by an irresistible urge to move the affected limb. These symptoms do not usually affect the arms, trunk, or head. Although the sensations can occur on just one side of the body, they most often affect both sides.
Because moving the legs (or other affected parts of the body) relieves the discomfort, people with RLS often keep their legs in motion to minimize or prevent the sensations. They may pace the floor, constantly move their legs while sitting, and toss and turn in bed.
A classic feature of RLS is that the symptoms are worse at night with a distinct symptom-free period in the early morning, allowing for more refreshing sleep at that time. Other triggering situations are periods of inactivity such as long car trips, sitting in a cinema or theatre or long-

distance flights. Many individuals also note a worsening of symptoms if their sleep is further reduced by events or activity.
RLS symptoms may vary from day to day, in severity and frequency from person to person. Individuals with mild RLS may have some trouble in getting sleep and have minor interference in daytime activities. In moderate and severe cases the interference in daytime activities increases significantly.
People who have both RLS and an associated medical condition tend to develop more severe symptoms rapidly. In contrast, those who have RLS that is not related to any other condition and experience onset at an early age show a very slow progression of the disorder; many years may pass before symptoms occur regularly.

Cause
In most cases, the cause of RLS is unknown. However, it may have a genetic component; RLS is often found in families where the onset of symptoms is before age 40. Specific gene variants have been associated with RLS. Evidence indicates that low levels of iron in the brain also may be responsible for RLS.
Considerable evidence suggests that RLS is related to a dysfunction in the brain's basal ganglia circuits that use the neurotransmitter dopamine, which is needed to produce smooth, purposeful muscle activity and movement. Disruption of these pathways frequently results in involuntary movements. Individuals with Parkinson's disease, another disorder of the basal ganglia's dopamine pathways, often have RLS as well.
Some researchers believe that there may be a link to other chronic diseases such as kidney failure, diabetes, and peripheral neuropathy. Treating the underlying condition often provides relief from RLS symptoms.

Diagnosis
There is no specific test for RLS.
Physicians seem to focus largely on the individual's descriptions of symptoms, their triggers and relieving factors, as well as the presence or absence of symptoms throughout the day. A neurological and physical exam, plus information from the individual's medical and family history and list of current medications, may be helpful. Individuals may be asked about frequency, duration, and intensity of symptoms as well as their tendency toward daytime sleep patterns and sleepiness, disturbance of sleep, or daytime function.
Laboratory tests may be performed to rule out other conditions. Blood tests can identify iron and vitamin deficiencies as well as other medical disorders associated with RLS. In some cases, sleep studies such as polysomnography (a test that records the individual's brain waves, heartbeat, breathing, and leg movements during an entire night) may identify the presence of other causes of sleep disruption (e.g., sleep apnoea), which may impact management of the disorder.
Diagnosing RLS in children may be especially difficult, since it may be hard for a child to describe where it hurts, when and how often the symptoms occur, and how long symptoms last. Paediatric RLS can sometimes be misdiagnosed as "growing pains" or attention deficit disorder.

Treatment
For many people with RLS, prevention is the first step towards managing symptoms. People may work with their health care professional to develop a variety of lifestyle changes and activities to reduce symptoms. This can include decreasing caffeine, alcohol and tobacco intake; taking iron

supplements; maintaining a regular sleep pattern; developing an exercise routine; taking a hot bath; massaging the legs or using a heating pad or ice pack.

For patients who are unable to find symptom relief through lifestyle changes, medical treatments are available.

DISCLAIMER: While every effort is made to ensure medical accuracy, this paper should not be used to diagnose or treat a sleep disorder. In all cases the advice of a properly qualified medical practitioner should be sought.

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