Restless Legs Syndrome and Periodic Limb Movement Disorder

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What is Restless Legs Syndrome?

Restless Legs Syndrome (RLS) is a disorder in which a person experiences unusual sensations in their legs. These are often described as creeping, crawling, tingling, pulling, or sometimes painful. These sensations occur during periods of relaxation or inactivity and may affect one or both legs, or much less commonly, the arms.

People with RLS often describe an irresistible urge to move their legs, which tends to relieve these symptoms. RLS symptoms are typically worse in the evening and night as compared to morning hours. People with RLS may find it difficult to relax or fall asleep due to their symptoms as well as the strong urge to continuously move their legs.

As a result of decreased sleep at night, people with RLS may feel sleepy during the day. The severity of the symptoms can vary from night to night or over a long period of time. Some individuals may experience symptoms daily; though for others there may be periods when they experience no symptoms at all.

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What is Periodic Limb Movement Disorder (PLMD)?

While the movements of RLS are a voluntary response to uncomfortable feelings in limbs when the person is awake, the movements of PLMD occur when a person is asleep and are involuntary. People with PLMD are often unaware of these movements, although their bed partners may complain of being kicked at night, of the bedcovers twisted or knocked off the bed, or limb movements that shake the bed. The person with PLMD may offer a general complaint of restless or poor sleep, causing them to be tired during the day.

As the name implies, PLM’s occur at regular intervals four to 90 seconds apart and usually occur the first half of the night. They typically resemble a kicking or jerking motion. PLM’s may be associated with very brief awakenings that create an overall perception of poor sleep.

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Who is at Risk?

Most people with RLS have periodic leg movements, but patients with PLM’s often do not have RLS. RLS and PLM’s can occur in both sexes and symptoms can begin at any age, but are usually more common and severe in older people. RLS is also known to run in some families. Some women may experience RLS during pregnancy, particularly in the last few months. Anemia, or low iron levels, may also lead to RLS or PLMD. Kidney failure, diabetes, rheumatoid arthritis and some neurological disorders may also be associated with either condition. Caffeine and nicotine use may aggravate or precipitate the symptoms of RLS or PLMD.
How are Restless Legs Syndrome and PLMD Diagnosed?

The patient’s primary physician or a sleep specialist usually diagnoses RLS based on symptoms described by the patient. To help make a diagnosis, the Physician may ask about the symptoms as well as current and past medical problems, medications and family history. A complete physical and neurological exam may help identify conditions that may be associated with RLS or PLMD. Unlike RLS, a Sleep Physician can only definitively diagnose PLMD after reviewing the results of the patient’s complete sleep study (polysomnogram).

How are Restless Legs Syndrome and PLMD Treated?

Treatment of RLS and PLMD will depend on the individual findings. In mild cases, a hot bath, massaging the legs, using a heating pad or ice pack, exercising, or eliminating caffeine will alleviate the symptoms. In more severe cases, medications may be indicated.

- **Dopaminergic drugs**, used to treat Parkinson’s disease, and anti-seizure medications are frequently effective.
- **Central nervous system depressants** called benzodiazepines allow patients to sleep despite these conditions, but may also cause daytime drowsiness. People with sleep apnea should not use these.
- For RLS and PLMD, **Opiates** are pain-killing drugs that may also suppress the sensations of RLS.

Sometimes a medication that is initially found to be effective may lose its effect and it may be necessary to alternate between different drugs to maintain control of the symptoms.

Various nutritional supplements such as magnesium, calcium, vitamin B12, vitamin C, and vitamin E have also been used though results with these treatments are variable, except in the treatment of deficiencies. Correction of iron deficiency can give significant relief.

Both conditions are treatable and effective treatment can improve sleep quality, reduce daytime sleepiness, and improve the patient’s sense of well-being.