



Restless Legs and Periodic Limb Movements of Sleep

If you suffer from unpleasant creeping sensations or your legs twitch during the night you may have Restless Legs Syndrome (RLS) or Periodic Limb Movements of Sleep (PLMS). In PLMS the movements occur only during sleep whereas in RLS the sensations occur while you are awake.

Restless Legs Syndrome

RLS is a movement disorder characterised by uncomfortable sensations in the legs or sometimes the arms. Individuals describe the sensations as pulling, drawing, crawling, wormy, boring, tingling, pins and needles, prickly, and painful. These sensations occur when the person with RLS sits for prolonged periods of time, such as at a desk, riding in a car, or watching a movie. They may also occur when the person lies down before sleep. People with RLS describe an irresistible urge to move the legs when the sensations occur. Usually, moving the legs, walking, rubbing or massaging the legs, or doing knee bends can bring relief, at least briefly. If the legs are not moved, they frequently jump involuntarily. Symptoms are always worse in the evening and may make falling asleep very difficult, a condition called sleep onset insomnia. If sufferers do manage to fall asleep, leg movements may lead to frequent awakenings and as a result they have unrefreshing sleep. It is easy to see why RLS sufferers complain of irritability, anxiety, and depression.

Who gets RLS?

RLS occurs in both sexes. Symptoms can begin any time, but are usually more common and more severe among older people. As many as 2 to 5 percent of the population may be affected, with varying degrees of intensity.

How is RLS diagnosed?

There is no laboratory test that can make a diagnosis of RLS and, when someone with RLS goes to see a doctor, there is usually nothing abnormal the doctor can see or detect on examination. To help make a diagnosis, the doctor may ask about all current and past medical problems, family history, and current medications, however, in most people with RLS, no new medical problem will be discovered during the physical exam or on any tests.

What causes RLS?

The cause is unknown in most cases but certain factors may be associated:-

- If your parents had RLS, there is 30-50% greater chance that you will have it.

- RLS may occur during pregnancy, especially during the last 6 months. The symptoms usually disappear after delivery.
- Low iron levels or anaemia may cause RLS.
- Chronic diseases may lead to RLS, particularly kidney failure. Other diseases such as diabetes, rheumatoid arthritis, Parkinson's disease or damage to the nerves of the arms, hands, legs, or feet may also be associated with RLS.
- High caffeine (coffee) intake may make RLS worse.

How is RLS treated?

If a cause such as anaemia can be identified, treating this may resolve the RLS. Otherwise, in mild cases, some people find that activities such as taking a hot bath, massaging the legs, using a heating pad or ice pack, exercising, and eliminating caffeine help alleviate symptoms. In more severe cases, medications are prescribed to control symptoms. Unfortunately, no one drug is effective for everyone with RLS. A medication that is initially found to be effective may lose its effectiveness with nightly use and it may be necessary to change medication in order to keep symptoms under control. The most commonly used drugs are benzodiazepines (such as Valium), dopaminergic drugs such as are used to treat Parkinson's disease and opioids (such as codeine). Although there is some potential for benzodiazepines and opioids to become habit forming, this usually does not occur with the dosages given to most RLS patients. Some newer drugs, called alkaloids, also show promise.

Does the severity of RLS change?

Symptoms may gradually worsen with age. The severity of symptoms varies from night to night and over the years as well. For some individuals, there may be periods when RLS does not cause problems, but the symptoms usually return.

Will other things affect RLS?

RLS may be aggravated by antidepressant medications. Caffeine, alcohol, and smoking worsen symptoms, especially when you suddenly start or stop using them. Stress is also a factor.

Periodic Limb Movements of Sleep

PLMS is characterised by involuntary leg movements during sleep that occur every 10 to 60 seconds. If you have PLMS, or sleep with someone who has PLMS, you may recognise these movements as flexing of the toe or foot, bending of the ankle or knee or twitching of the hip. They occur in periods lasting anywhere from a few minutes to several hours. The PLMS patient is often identified by the bed-partner's complaints of being kicked. The bed-covers may be in disarray in the morning. The movements are mainly seen in the first third of the night, during what is called non-REM sleep. Some people may experience hundreds of such movements per night, which in some case can wake them, disturb their sleep, and awaken bed partners. For others PLMS may not cause any problems and no treatment is required.

Is PLMS the same as myoclonus?

There has been confusion over the naming of PLMS which in the past has been called restless legs, nocturnal myoclonus, periodic leg movements and periodic limb movement disorder. The accepted name is now Periodic Limb Movements of Sleep.

How common is PLMS?

PLMS is seen equally in both men and women and occurs more commonly with advancing age. It affects only 2% of the population of ages less than 30, 5% of ages 30 to 50, and 25% of ages 50-60. Up to 44% of the population of age 65 or older may have PLMS. As many as 80% of people with RLS also have PLMS and as they may have trouble both falling asleep and staying asleep, they may be suffer from fatigue or sleepiness during the day.

How is PLMS diagnosed?

PLMS can be identified with an overnight sleep study, or polysomnogram. Leads are attached to your legs while your sleep is measured. This is done at a Sleep Disorders Laboratory. Sometimes recording of leg movements over a longer period (1-2 weeks) may be done with a portable monitor worn around the ankle.

What causes PLMS?

The exact cause of PLMS is still unknown. Scientists believe that the underlying mechanisms probably involve factors in the nervous system, although studies have not revealed any consistent abnormalities.

How is PLMS treated?

If PLMS is causing disrupted sleep and daytime symptoms, it may be necessary to treat the disorder and then the same drugs that are used to treat RLS may be used. Controlling caffeine intake, alcohol, and smoking may also help.

Sources of help and information

If you are concerned about RLS or PLMS, you should consult your family doctor. Referral from your family doctor will be necessary before you can consult a specialist physician. Sleep Disorders Australia, a patient support group, has a special sub-group with an interest in RLS. They have branches throughout Australia.

This information is produced by:

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A voluntary group offering assistance and support to people and their families living with sleep disorders

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