



# PERIODIC LIMB MOVEMENT DISORDER

## WHAT IS PLMD?

Periodic Limb Movement Disorder (PLMD) is a movement disorder that occurs during sleep. It is characterised by repetitive limb movements that only happen when you are asleep and occur repeatedly every 10 to 60 seconds. These movements usually involve the legs; however, the arms may also be involved in severe cases. If you have PLMD, or sleep with someone who has PLMD, 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 PLMD 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. Abnormal limb movements result in daytime tiredness by causing periods of wakefulness during the night (called arousals) and disrupting the brain's sleep-patterns. The abnormal movements also prevent the brain from transitioning into stages of deep sleep, causing the sufferer to wake feeling tired and unrefreshed. PLMD is also often disruptive for the sufferer's bed partner. Some people may experience hundreds of such movements per night. For others PLMD may not cause any problems and no treatment is required. Although controversial, some researchers believe PLMD is associated with increased risk of cardiovascular disease.

## HOW COMMON IS PLMD?

PLMD occurs equally in men and women but is more common with age. It affects only 2% of those under 30 years old, 5% of 30 to 50-year-old individuals, and 25% of 50 to 60-year-old individuals. Up to 44%



of people aged 65 or older may have PLMD.

PLMD can occur in combination with other sleep disorders, such as narcolepsy, obstructive sleep apnea, or REM behaviour disorders. As many as 80% of people with Restless Legs Syndrome (RLS) also have PLMD. Since they may have trouble falling asleep and staying asleep, they usually suffer from fatigue or sleepiness during the daytime.

## HOW IS PLMD DIAGNOSED?

PLMD 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 PLMD?

The exact cause of PLMD is still unknown. Scientists believe that the underlying mechanisms probably involve abnormal nerve transmission in parts of the nervous system that influence sensation, although studies have not revealed any consistent abnormalities.

## HOW IS PLMD TREATED?

If PLMD is causing disrupted sleep and daytime symptoms, it may be necessary to treat the disorder. The same drugs for treating RLS may be used. For example, dopaminergic medications, calcium channel blockers (Pregabalin and Gabapentin), opioids (such as codeine) and benzodiazepines (e.g. Clonazepam, diazepam).

These medications treat the symptoms of PLMD, but not the underlying cause. Consequently, they must be taken every evening before bed, otherwise the symptoms will return. Controlling caffeine intake, alcohol, and smoking may also help.

## ABOUT US

*Sleep Disorders Australia* (SDA) is a voluntary not-for-profit organisation that provides information and support to people affected by sleep disorders throughout Australia. SDA advocates the needs of people with sleep disorders by raising awareness of sleep disorders and their impact on our lives. We also offer support and education with regards to preventing and treating sleep disorders.

We would be delighted if you joined us. Membership is open to sufferers, family members, medical professionals, and the general public. You can join via our website or email our membership officer for more information.

If you would like to support us financially, you can donate via our website or send a cheque to our address.



## CONTACT INFO



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