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Periodic Limb Movement Disorder

Patient education guide · Sleep Disorders · Madison Neurology LLC

What is it?

Periodic limb movement disorder (PLMD) involves repetitive, involuntary jerking or twitching of the legs (sometimes arms) during sleep — typically every 20-40 seconds, in runs lasting minutes to hours — that fragments sleep and causes daytime fatigue. The sleeper is usually unaware; a bed partner may report being kicked. It is diagnosed when the movements disrupt sleep and aren't better explained by another disorder.

How does it happen?

The movements arise from spinal cord and brainstem motor circuits disinhibited during sleep, sharing biology with restless legs syndrome (with which it often coexists). Iron deficiency, kidney disease, certain antidepressants, caffeine, and untreated sleep apnea contribute or aggravate.

Common symptoms

- Repetitive leg jerks or kicks during sleep (usually reported by the bed partner)
- Unrefreshing sleep and daytime sleepiness or fatigue despite adequate time in bed
- Frequent brief awakenings (usually not remembered)
- Often coexisting restless legs syndrome
- Normal neurological examination

How is it diagnosed?

In-lab polysomnography counts the movements (periodic limb movement index) and the arousals they cause, and rules out sleep apnea — which itself causes limb movements and must be treated first. A ferritin level screens for iron deficiency.

How is it treated?

Treat contributors first: correct low iron (ferritin target above 75-100), review aggravating medications, treat coexisting sleep apnea, moderate caffeine. When movements still fragment sleep, the same medications used for RLS — alpha-2-delta ligands (gabapentin, pregabalin) — reduce movements and arousals; dopamine agonists are used cautiously (augmentation risk). Most patients respond well.

What does the future hold?

PLMD is chronic but manageable; treating iron deficiency and coexisting sleep apnea resolves many cases. With medication when needed, sleep quality and daytime energy improve substantially. Periodic re-evaluation keeps treatment tuned.

Questions patients commonly ask

Q: I sleep through the night — how is my sleep 'fragmented'?

A: The jerks cause micro-arousals — brief brain awakenings you don't remember — that rob you of deep, restorative sleep.

Q: Is this the same as restless legs?

A: They're cousins: RLS is the waking urge to move; PLMD is involuntary movements in sleep. They share causes and treatments and often coexist.

Q: Will treating my sleep apnea fix the movements?

A: Sometimes — apnea provokes limb movements, and treating it often reduces them; persistent movements after apnea treatment are then treated directly.

National support groups & resources

- **American Academy of Sleep Medicine — Sleep Education** — sleepeducation.org
- **Restless Legs Syndrome Foundation** — rls.org
- **American Sleep Apnea Association** — sleephealth.org

(Organization contact details were current at the time of compilation; please verify online.)

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