

Periodic Limb Movement Disorder

WHAT IS PERIODIC LIMB MOVEMENT DISORDER?

Periodic limb movement disorder (PLMD) involves periodic episodes of repetitive movements, usually in the legs, that occur approximately every 20 to 40 seconds. The movements may appear as brief muscle twitches, jerking movements, or an upward flexing of the feet. These movements occur in clusters, lasting from a few minutes to a few hours. Most children and adolescents with PLMD are not aware of the movements. PLMD can result in frequent brief arousals throughout the night, leading to daytime sleepiness.

Children and adolescents with PLMD may also have restless legs syndrome, a movement disorder in which an individual experiences uncomfortable sensations in the legs during periods of rest or sitting still. The sensations are usually described as creepy, crawly, tingling, or painful and can make it difficult for a child or adolescent to fall asleep at bedtime.

WHAT CAUSES PERIODIC LIMB MOVEMENT DISORDER?

The cause of PLMD is unknown but it may be related to low iron (anemia). In addition, some children with chronic diseases, such as diabetes and kidney disease, are at increased risk for developing PLMD.

WHAT ARE THE SYMPTOMS OF PERIODIC LIMB MOVEMENT DISORDER?

The symptoms of PLMD may include any of the following, although many children and adolescents with the condition do not report any symptoms:

- **Leg movements.** Repetitive leg movements in sleep characterize PLMD, but the child or adolescent is probably not aware of these movements.
- **Sleep disruption.** Children and adolescents with PLMD may experience wakings throughout the night as a result of the multiple arousals from sleep.
- **Restless sleep.** A child or adolescent with PLMD may be described as a restless sleeper due to the leg movements and frequent arousals.
- **Daytime sleepiness.** The frequent arousals in sleep can result in significant daytime sleepiness.
- **Behavior and academic problems.** Children and adolescents with PLMD may have daytime behavior and academic problems, such as hyperactivity, impulsivity, and irritability, which is the result of the sleep disruption.

HOW IS PERIODIC LIMB MOVEMENT DISORDER DIAGNOSED?

PLMD is diagnosed by an overnight sleep study. This requires your child or adolescent to stay overnight in a sleep laboratory. In addition, a medical history and physical examination will be conducted.

HOW IS PERIODIC LIMB MOVEMENT DISORDER TREATED?

Treatment for PLMD may involve any of the following:

- **Use of medication.** For children and adolescents with PLMD who have significant sleep disruption, medication may be recommended. There are a number of different medications that can help.
- **Avoidance of caffeine.** Caffeine can make PLMD symptoms worse; so all caffeine should be avoided. Caffeine can be found in many sodas, tea, and coffee, but also in chocolate and medications (e.g., Midol, Excedrin).
- **Management of iron deficiency.** Low levels of iron or folic acid can contribute to PLMD symptoms, so an iron or folic acid supplement may be prescribed by your child's doctor.