Periodic Limb Movement Disorder
Periodic Limb Movement Disorder (PLMD) is the name given to repetitive movements of your upper or lower limbs during sleep. Typically, the movement involves the bending of your ankle and extension (stretching out) of your big toe. Extension of your knee and hip may also occur. Each movement lasts about half a second to five seconds and occurs every 20 to 40 seconds.

Movements occur in clusters and tend to be most numerous in the first half of the night. Although your lower limbs are often involved, similar types of movements can occur in your shoulders or arms. PLMD is a common cause of insomnia. It affects men and women equally and it becomes more common with increasing age.

What are the Symptoms of PLMD?
You may complain of insomnia or daytime fatigue since your movements may cause you to partially or completely awaken during the night. Less commonly, you may complain of excessive daytime sleepiness and fall asleep at inappropriate times. In severe cases, you may notice the rhythmic movements at rest just prior to going to sleep. Usually your sleep is restless, disturbed and short. Often you are unaware of your movements and their effects; even your partner may not notice them.

Although PLMD is a chronic disorder, it is not medically dangerous apart from its effect on your sleep and daytime function. The underlying cause of your movements is not known, but PLMD is associated with other disorders that cause chronic sleep disruption. If you have restless legs syndrome, a condition associated with a sensation of repeatedly wanting to change leg position, you probably have PLMD. PLMD may occur in association with obstructive sleep apnea, a condition characterized by frequent cessation of breathing during sleep.

Your movements may actually become worse following the successful treatment of sleep apnea. PLMD has also been associated with fibromyositis, diabetes mellitus, anemia, chronic lung disease, some spinal cord and nervous system problems and voluntary sleep deprivation. Some medications have been shown to induce PLMD while withdrawal from other drugs can cause or worsen it.

How is PLMD Diagnosed?
A physical examination will not show signs of any problems if you are basically healthy. A sleep study is required to make the diagnosis. The sleep study excludes other sleep disorders in addition to providing information about the movements and their effects on sleep. PLMD often varies from night-to-night. For this reason, a 2-night sleep study is usually required.

What are the Treatments for PLMD?
In mild cases, it may be possible to improve your sleep by using behavioural techniques such as sleep restriction and relaxation training. Severe PLMD causing daytime fatigue often requires treatment with medications. Because your movements will likely increase with age, it is best to delay drug therapy as long as possible. Medications commonly used include trazodone (Desyrel), temazepam (Restoril), clonazepam (Rivotril) and nitrazepam (Mogadon). These medications reduce the number of movements and improve sleep quality.

Side effects of these medications include daytime sedation, confusion and decreased muscle coordination. In addition, these medications may lose their effectiveness with continued use (i.e. you may develop a tolerance). Thus, it may be necessary to limit medication use or even stop treatment for a while. Medication tolerance seems to be a lesser problem with trazodone.