

PERIODIC LIMB MOVEMENTS (PLMS)–INFORMATION SHEET

Robert G Hooper, M.D. February 2024

Condition:

- Events of intermittent, short muscle contractions while asleep
- Each muscle contraction lasts from 0.5 to 10 seconds
- Muscle events occur between 5 and 90 seconds apart
- Events occur in series as short as four events or last for long periods of time
- Events usually fade during the night and are gone by morning

Effects:

- Events may disturb sleep and cause symptoms such as tiredness, poor quality sleep and frequent awakenings. More often they cause no symptoms. No physical movement is seen in 38%.
- Physical movement occurs in 62% of events with dramatic movements in 16%. The events have a weak relationship to long-term illnesses (hypertension, diabetes, strokes, and heart attacks). This is distinctly different from obstructive apnea events.

Diagnoses:

- Individuals may or may not have symptoms and most sleepers are not aware of events.
- Sleeping partners can observe movements and may be bothered by them.
- Testing shows the muscle contractions and determines the frequency per hour
- Testing may allow for visualization of the movements

Testing:

- Home Sleep Apnea Testing cannot be reliably used to measure the events
- Sleep center testing (polysomnograms) can be used to measure the events, evaluate for other sleep disorders and observe the movements. Insurance will not usually cover testing for PLMs in a sleep facility.

Counting:

- The number of events are counted during sleep.
- The number of events that cause brief awakenings (arousals) are counted
- The Periodic Limb Movement Index (PLMI) – number per hour asleep - is calculated
- The Periodic Limb Movement Arousal Index (PLMAI) – number of arousals per hour - is calculated

Severity

- The severity of PLMs may be rated by the number observed per hour of sleep.
- The actual severity is better assessed by the effects on the person.

Goals of treatment:

- Improve symptoms – Sleep better
 - Patients are treated to improve symptoms
- Treatment is directed at symptoms, not improving the number of events.