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Nocturnal leg cramps: Stretching is effective however diagnosing may be confused with other motor sleep disorders

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Background: Many sufferers from nocturnal leg cramps stretch their legs when night cramps occur and pain is then decreased. However, can a pre-sleep stretching regimen be effective in preventing nocturnal leg cramps and decrease frequency and severity of cramps? Many older adults suffer from one of these sleep related motor disorders, which are often conducted with sleep disruption, distress and decreased quality of life, however a clear definition of nocturnal leg cramps is lacking. Nocturnal leg cramps, restless legs syndrome and periodic limb movement disorder are often confused in diagnosing as different sleep related movement disorders. Two research questions must be answered:

Will a pre-sleep stretching regimen be effective in nocturnal leg cramps?

To identify all evidence based valid criteria with respect to diagnosing nocturnal leg cramps and which conditions must be ruled out.

Materials & Methods: Eighty adults over 55 years with nocturnal leg cramps who were not being treated with medication were taken into consideration. In a six-week period, the experimental group performed a nightly pre-sleep stretching regimen of the calf and hamstrings muscles immediately before going to sleep. The control group performed no specific exercises. A comprehensive systematic literature search has been executed 1990 up till now.

Results: All participants completed the study. At six weeks frequency and severity of nocturnal leg cramps decreased both significantly in the experimental group. Although diagnostic studies about nocturnal leg cramps could not be identified this is the first attempt to systematically review all literature on nocturnal leg cramps: Systematic and narrative reviews, randomized trials and observational studies. The included studies revealed a total of twelve diagnostic criteria described in these primary studies and are used in their inclusion criteria.

Conclusion: Night stretching before going to sleep is effective on frequency and severity of nocturnal leg cramps and might be an effective alternative as a non-drug intervention. Consensus is reached about criteria for clinical diagnosing of nocturnal leg cramps.

Biography

Joannes M Hallegraeff has completed his PhD as Clinical Epidemiologist from University of Groningen, the Netherlands. He is researcher; lecturer and coordinator of the Lifelong Learning musculoskeletal program at SOMT University, The Netherlands. His field of interest is two fold: Nocturnal leg cramps in older adults and non-specific low back pain. He has published in *Journal of Physiotherapy* on nocturnal leg cramps and a recent systematic review about diagnosing nocturnal leg cramps is submitted.

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