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Effect of Muscle Energy Technique on Hamstring Flexibility: A Literature Review

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ABSTRACT

Muscular flexibility is an essential aspect of normal human function. Limited flexibility has been shown to predispose a person to several musculoskeletal overuse injuries and to affect a person's level of function significantly. Hamstring tightness is a causative factor for reduced range of motion and can lead to reduced flexibility of the pelvis, hip and knee. The hamstring muscle is a two-joint muscle significant for hip extension, knee flexion, and pelvic posterior tilt movement. Muscle Energy Technique (MET) is a manual technique, also termed an active muscular relaxation technique, used for various purposes, including lengthening of a shortened muscle and contraction of a subject's muscle in a controlled direction against the resistance provided by the physical therapist. MET has shown an improved range of motion, increased muscle strength and pain reduction. A literature review of randomised controlled trials was conducted in PubMed. The following terms have been extensively searched: “Hamstring muscle,” “Tightness,” “Muscle energy technique,” and “Muscle stretching exercises.” Randomised controlled trials, original papers in full text, and studies written in English were included in this review. The outcomes studied were hamstring length test (using active knee extension and straight leg raise). A total of 6 articles were selected based on inclusion criteria. Four articles included active knee extension, and two included straight leg raises. The study concluded that the MET was effective in increasing the hamstring muscles' flexibility.

Keywords: Muscles, Pain, Range of motion, Tightness.