

EFFECT OF STRETCHING IN THE TREATMENT OF MUSCLE STRAIN: SYSTEMATIC REVIEW

Thesis

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By

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Abstract

Background: Although stretching may play a role in treatment of muscle strain, its significance is still conflicting and previous studies show a low level of evidence.

Objective: To find out the latest evidence regarding the effectiveness of stretching as a treatment to patients with grade I&II muscle strain.

Methods: A comprehensive electronic database search of PubMed, Cochrane Library Database, and the Physiotherapy Evidence Database (PEDro) was conducted for randomized controlled trials (RCTs) in English language from January 2008 to October 2019 on adults with muscle strain treated by stretching exercise. Manual searching was conducted for reference list of included studies. Two reviewers independently reviewed and assessed each article for inclusion. The Revised Cochrane risk-of-bias tool for randomized trials (RoB 2) was used to rate methodological quality and risk of bias.

Results: A total of five RCTs with a total number of 197 patients were analyzed. Three trials used stretching exercises versus conventional physical therapy (basic range of motion exercise, postural stabilization, and concentric and eccentric exercises) showed the positive efficacy of static stretching on flexibility, strength, and ROM. Two trials used stretching based rehabilitation versus other treatment (vibration and cryotherapy) revealed superior effect of stretching rather than any other treatment.

Conclusion The clinical efficacy of stretching may correlate with using static stretching in treatment of grade I &II muscle strain. The effects of combining stretching with other modalities may be superior to conventional physical therapy treatment and can result in better outcomes.

Keywords: Muscle strain, Stretching exercises, Systematic review.