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The Effect of Instrument Assisted Soft Tissue Mobilization on Improving Joint Range of Motion in Active Individuals: A Critically Appraised Topic

Cole E. Dearing
Bowling Green State University - Main Campus, coleed@bgsu.edu

Andrea Cripps
Bowling Green State University, acripps@bgsu.edu

Jenny Toonstra
Bowling Green State University, jltoons@bgsu.edu

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The Effect of Instrument Assisted Soft Tissue Mobilization on Improving Joint Range of Motion in Active Individuals: A Critically Appraised Topic

Cole Dearing; Jenny Toonstra PhD, ATC; Andrea Cripps PhD, ATC
Bowling Green State University, Bowling Green, Ohio

CLINICAL SCENARIO

In all activities that require physical movement, whether in athletics or in other daily tasks, it is important for joints to have adequate range of motion and flexibility. Soft tissue restrictions are very common pathologies in healthcare. Although a decrease in myofascial range of motion can arise from a variety of reasons such as biomechanical deformities, autoimmune diseases, or age, it is often caused by overtraining or musculoskeletal injuries in active populations. Instrument assisted soft tissue mobilization techniques are gaining popularity to assist in treating various soft tissue injuries and musculoskeletal pathologies. The belief is that by applying a stimulus to the soft tissue around a joint, it will increase the number of fibroblasts, through localized inflammation, and result in a realignment of collagen fibers². While some studies have shown positive outcomes of instrument assisted soft tissue mobilization (IASTM), there has been limited evidence to determine the efficacy of this modality in improving joint range of motion (ROM).

FOCUSED CLINICAL QUESTION

In active individuals, what is the effect of instrument assisted soft tissue mobilization on improving joint range of motion?

Search Strategy

P: Active Individuals

I: Instrument Assisted Soft Tissue
Mobilization or IASTM

O: Increased Range of Motion

EVIDENCE OF QUALITY ASSESSMENT

All of the evidence that was included in this critically appraised topic was obtained from articles with a level of 2b or higher, according to the Center for Evidence-Based Medicine (CEBM) criteria. All of the randomized controlled trials that met the inclusion criteria received a score of 7 or higher using the PEDro rating scale. Collectively, the evidence that answers this clinical question earned a CEBM grade of recommendation of B.

RESULTS

Five total studies met the inclusion criteria including three randomized controlled trials that investigated how IASTM impacts range of motion at the ankle and lower leg and two cohort studies that focused on the glenohumeral joint. All five articles agreed that almost all individuals who received IASTM experienced a measurable increase in their soft tissue mobility at the affected joint, especially in individuals who are physically active.

CLINICAL BOTTOM LINE

There is adequate evidence to support the claim that IASTM can improve joint range of motion in physically active individuals. Therefore, athletic trainers and other healthcare practitioners should consider implementing this intervention in their clinical practice to provide their patients with positive outcomes.

KEYWORDS: *Instrument Assisted Soft Tissue Mobilization, Range of Motion, Therapeutic Modalities*

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