

The Effects of Kinesio Tape® and No Tape for Muscle Facilitation and Inhibition, for Collegiate Athletes with Self-Reported Shoulder Pain

Authors : Gregory Chown, Benjamin Infantolino, Christopher Wise, Rachel Holmes, Samantha O'Donnell, Katelyn Pfeiffer, Victoria Ward

Abstract : Background: There is a lack of understanding of how Kinesio Tape® physiologically works. Furthermore, few studies compare Kinesio Tape® to other forms of taping. The research question is: Does Kinesio Tape® cause a difference in muscle facilitation, inhibition, and pain, between Kinesio Tape® and no tape for collegiate athletes with self-reported shoulder pain? Method: This quantitative non-randomized design used a convenience sampling method. There were eleven participants with self-reported shoulder pain who were athletes on the men's and women's lacrosse and tennis teams. Participants attended one 30-45 minute session for data collection. Each participant received all three taping conditions and performed four repetitions of 120 degrees of active shoulder flexion for the three separate trials (no tape, Kinesio Tape® inhibition, and Kinesio Tape® facilitation). Surface electromyography (sEMG) electrodes were placed on the anterior deltoid, supraspinatus, and lower trapezius to measure muscle facilitation and inhibition. Each participant completed the visual analogue scale (VAS) before and after each trial to measure pain. Results: No statistical significance was found for pain scores on the VAS between the taping methods of facilitation, inhibition, and no tape ($p = .118$). No statistical significance was found for the percentage of change in muscle function for each taping method; Anterior deltoid ($p = .993$), supraspinatus ($p = .997$) and lower trapezius ($p = .922$). Conclusion: Based on the results, Kinesio Tape® appears to not have an effect on muscle function or pain when utilizing the facilitation or inhibition taping method when compared to no tape.

Keywords : Kinesio tape, muscle facilitation, muscle inhibition, pain

Conference Title : ICSOP 2022 : International Conference on Sports Orthopaedics and Physiotherapy

Conference Location : Amsterdam, Netherlands

Conference Dates : September 15-16, 2022