

THE EFFECT OF KINESIO TAPE® ON STATIC FOOT POSTURE, PLANTAR PRESSURE, AND REARFOOT MOTION IN INDIVIDUALS WITH PRONATED FEET

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ABSTRACT

Background: Kinesio Tape® (KT) is an elastic therapeutic tape that is applied to the skin for treatment of sport-related injuries. Its application has been purported to facilitate the neuromuscular system, thus altering skeletal muscle activity to increase joint range of motion and improve performance. Due to its proposed therapeutic effect, KT may benefit individuals with excess foot pronation in order to decrease pain and improve function. Unfortunately, current research regarding the ability of KT to alter foot biomechanics is limited.

Purpose: The purpose of this study was to determine if the application of KT to the ankle and lower leg would alter static foot posture, plantar pressure, and foot motion during walking in individuals with foot pronation.

Study Design: Prospective Cohort Study

Methods: Thirty participants (10M/20F) were recruited for this study. Each participant had their dorsal arch height and midfoot width measured prior to the application of the KT. In addition, their dynamic rearfoot eversion and plantar pressure was recorded during walking using an electrogoniometer and plantar pressure system. After these measurements were collected, KT was applied to their right foot and lower leg in order to attempt to facilitate activity in the posterior tibialis muscle. After applying the tape, the above measurements were repeated.

Results: None of the variables measured were statistically significantly different between the pre-test and post-test.

Conclusion: Application of KT did not result in a change in static foot posture, plantar pressure, and frontal plane rearfoot motion during walking. As such, KT cannot be recommended as a treatment for reducing excessive foot pronation where such a goal would be beneficial.

Level of Evidence: Level 3

Key words: Foot Pronation, Kinesio Tape®, Walking

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