

The Effects of Kinesio Tape on Postural Control in Female Athletes with Chronic Ankle Instability

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Kinesio Tape (KT) is an innovative product used in sports medicine to treat a variety of acute and chronic injuries. Although the use of KT has gained popularity among practitioners, there has not been agreement regarding the efficacy of KT for improving ankle stability. **PURPOSE:** Therefore, the purpose of this study was to determine the effects of KT application on postural stability in athletes with chronic ankle instability over a 72 hour time period. **METHODS:** The efficacy of KT application in improving chronic ankle instability was determined with 3 consecutive days of postural instability testing on five NCAA Division III female soccer players and one NCAA Division III female lacrosse player. The subjects underwent a familiarization session to minimize the learning effect of the stability protocol during a 30s single-leg stance on a forceplate using the Accusway Balance Software. Stability measures were taken prior to the application of the KT to obtain baseline measures, immediately after the taping, and subsequent measures were taken at 24, 48 and 72 hours. Data from overall postural sway (path length), anterior-posterior sway (y-axis) and medial-lateral sway (x-axis) were analyzed using a one-way ANOVA with repeated measures with an alpha level set at $p < 0.05$. **RESULTS:** Comparison between immediately after (0 hours) application and 72 hours presented significance difference for path length of 92.5cm and 114.7cm, respectively ($p=0.048$) and V_{total} ave 1.2 m/sec and 1.5m/s, respectively ($p=0.047$). The data between pre-trial and 72 hours also proved to be significant for X avg ($p=0.029$). Significance was also found between 0 and 48 hours for Y avg ($p=0.023$). **CONCLUSION:** Kinesio tape improved balance for athletes with chronic ankle instability for the first 48-hour period of application. Additional research should be conducted to determine significance with a larger subject pool.