

Athletic Enhancement

Research Article

The Influence of Kinesiology Tape on a Functionally Demanding Eversion Sprint in Healthy Male Soccer Players

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Abstract

Background: Ankle injuries are prevalent in soccer, with implications for athletic development, performance, and subsequent risk of reinjury. Injury prevention and management strategies have included the use of tape, but inhibiting movement can impair performance. The aim of the present study was to investigate the influence of kinesiology tape at the ankle joint during a functionally demanding eversion sprint.

Methods: The task required a drop landing onto a force platform, immediately followed by a 45° reactive (inversion or eversion) sprint. 11 male semi-professional soccer players (age =25.5 ± 5.0 years, height 1.75 ± 0.12 m, weight =74 .50 ± 8.25 kg) performed 2 trials (separated by >48 hours) of the drop landing test, with counter-balanced assignment of the taped (KT) or no taped (NT) condition. In addition to the task completion time for the sprint, ground reaction force measures of drop landing impact forces, amortisation period, the rate of force development in drive phase, and the angle of takeoff were quantified.

Results: There was no influence of tape condition on ground reaction forces at impact (Fz: P=0.24; Fx: P=0.51; Fy: P=0.96) or on the duration of the amortization period (P=0.56). KT did produce a significant improvement in the rate of vertical force development (P=0.02) into the sprint, but did not change the angle of takeoff (P=0.93) or the time to complete the task (P=0.99).

Conclusions: Application of KT using a functional correctional technique at the ankle did not inhibit task performance. Improvements were observed in the rate of force development, but the mechanism of improvement is unclear. If injury prevention is enhanced, with no detriment to performance, then KT could be advocated for athletic performance.

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