

## عنوان مقاله:

The Effects of Kinesio-tape through Facilitation of Hamstring and Inhibition of Quadriceps on Biomechanical Variables affecting Anterior Cruciate Ligament Injury When Landing in Active Healthy Young Women

## محل انتشار:

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## خلاصه مقاله:

The Anterior Cruciate Ligament (ACL) rupture is more prevalent among women due to several reasons such as women's different landing strategies. Today, many athletes use varying taping techniques to prevent ACL injury. This study aims to investigate the effect of facilitating hamstring and inhibiting quadriceps through Kinesio-tape on biomechanical variables that contribute to ACL injuries. The subjects included 18 active healthy women (age:  $19.94 \pm 1.16$  years, height:  $167 \pm 2.14$  cm, weight:  $58.33 \pm 3.72$  kg). Kinetics and kinematics data, including the angle of knee flexion and knee abduction in initial foot contact, maximum knee flexion and abduction, and peak anterior shear force, were collected in three conditions (without tape, with sham Kinesio-tape, and Kinesio-tape with facilitation of hamstring and inhibition of quadriceps) in landing maneuver. The Simi motion analysis system and the Kistler force plate were used to collect data. The results revealed that the application of the Kinesio-tape caused a significant increase in the angle of knee flexion in the initial contact and peak anterior shear force in a single leg drop jump ( $P < 0.05$ ). In conclusion, this Kinesiotaping technique can affect some contributory variables to ACL rupture by increasing the angle of knee flexion and maximum shear force, hence lead to reduced rates of injury in active healthy women. However, it seems .that this technique is unable to reduce the ACL rupture risk factors in the frontal plane

## کلمات کلیدی:

Kinesio-tape, Biomechanics, Anterior Cruciate Ligament

## لینک ثابت مقاله در پایگاه سیویلیکا:

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