The Effects of Kinesio®Tape on Running Gait Mechanics

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Introduction

KT tape is an elastic tape with varying degrees of stretch, applied to dry skin that can be worn 3-5 days.

KT tape has only been proven to significantly reduce edema.

All KT tape research thus far has been inconclusive for the following:

- Facilitating muscle activation
- Inhibiting muscle activation
- Altering body mechanics
- Decreasing pain
Current Evidence

Common Applications
- Balance
- Strength
- ROM

Common Pathologies
- Achilles tendinopathy
- PFPS

Common Users
- Runners
- Baseball pitchers
- Golfers
Our Study

Purpose:

Altering body mechanics through utilization of KT tape during running to possibly decrease genu valgum and hip drop in recreational runners
Protocol

Inclusion Criteria

Exclusion Criteria

Testing environment

MMT

Hip flexion, hip abduction, hip adduction, hip extension, hip IR, hip ER
Protocol

Video recording of gait

Application of KT tape to the right lower extremity from medial femoral condyle to PSIS

Video recording of gait completed again

Video analysis completed using Hudl Technique

Data run using SPSS analysis
Hudl Technique

An app that assists with gait analysis

Able to view videos in slow motion to determine heel strike, midstance, and toe off phases of gait

Once the video is paused, angles can be drawn to determine deviations in proper gait mechanics

Our study

Other running mechanics

Other uses
Still Shots from Video Analysis

Hip add: 75 deg  
Genu valgus: 13 deg

Hip add: 78 deg  
Genu valgus: 9 deg

Pelvic drop: 8 deg
Results

Mean age: 24.3

T-test: No significant correlation with KT tape applied compared to without with a 95% confidence interval

T-test: Changes in the following before and after KT tape application were detected

- Decrease in left side pelvic drop
- Decrease in right side pelvic drop
- Decrease in right hip adduction
- Decrease in left knee valgus

No changes in left hip adduction angle or right knee valgus angle
Questions?
References


References

