

- A Flock of Birds® (Ascension Technologies, Inc., Burlington, VT) electromagnetic motion analysis system controlled by Motion Monitor® (Innovative Sports Training, Inc. Chicago, IL) software was used to collect 3-D coordinates of selected anatomical landmarks at a sampling rate of 144 Hz
- 3-D knee and hip joint angles were calculated using an Euler sequence at initial ground contact as well as the peak angle during the stance phase of the jump-landing task
 - Initial ground contact was defined as the time when vertical ground reaction force exceeded 5 N as the subject landed on the force-plate
 - Stance phase was defined as the time period between initial ground contact with the force-plate until takeoff for the rebound jump
- Peak knee joint anterior tibial shear forces, flexion-extension moments, valgus-varus moments, and vertical ground reaction forces also recorded during the landing phase
 - Landing phase was defined as the time period from initial ground contact until the first local minima of the vertical ground reaction force

STATISTICAL ANALYSES

- Kinematic and kinetic data collected during the jump-landing maneuver was analyzed using multivariate analysis of variance (MANOVA) with gender as the between subject factor. Univariate F-tests were performed to further analyze the findings of the MANOVA.
- A one-way ANOVA was used to compare LESS scores between genders
- Statistical significance was set *a priori* at $\alpha < .05$

RESULTS

DEFINITION OF LESS

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