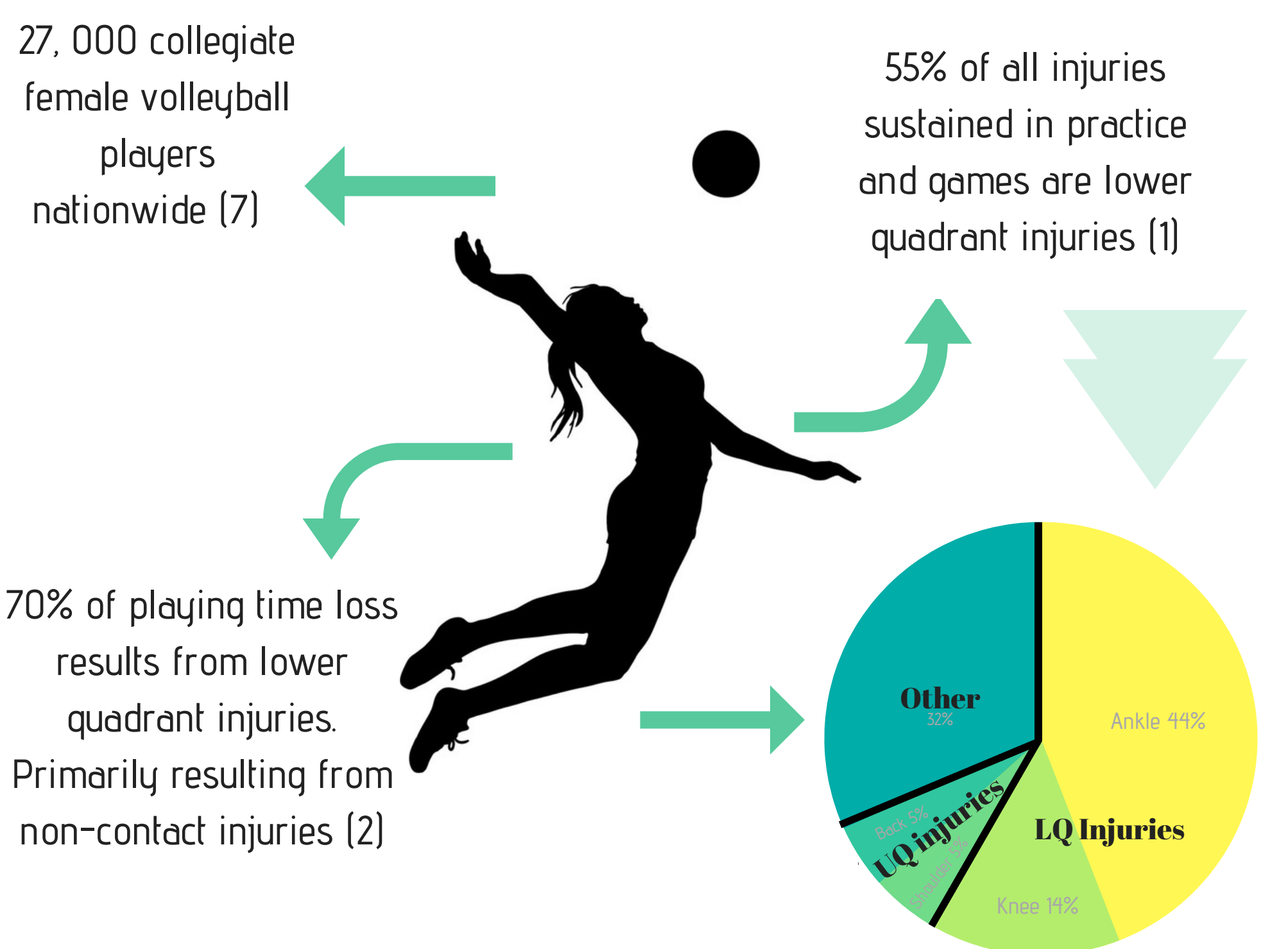


# Can Preseason Performance Tests Discriminate Injury Risk in Female Collegiate Volleyball Players



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## Background

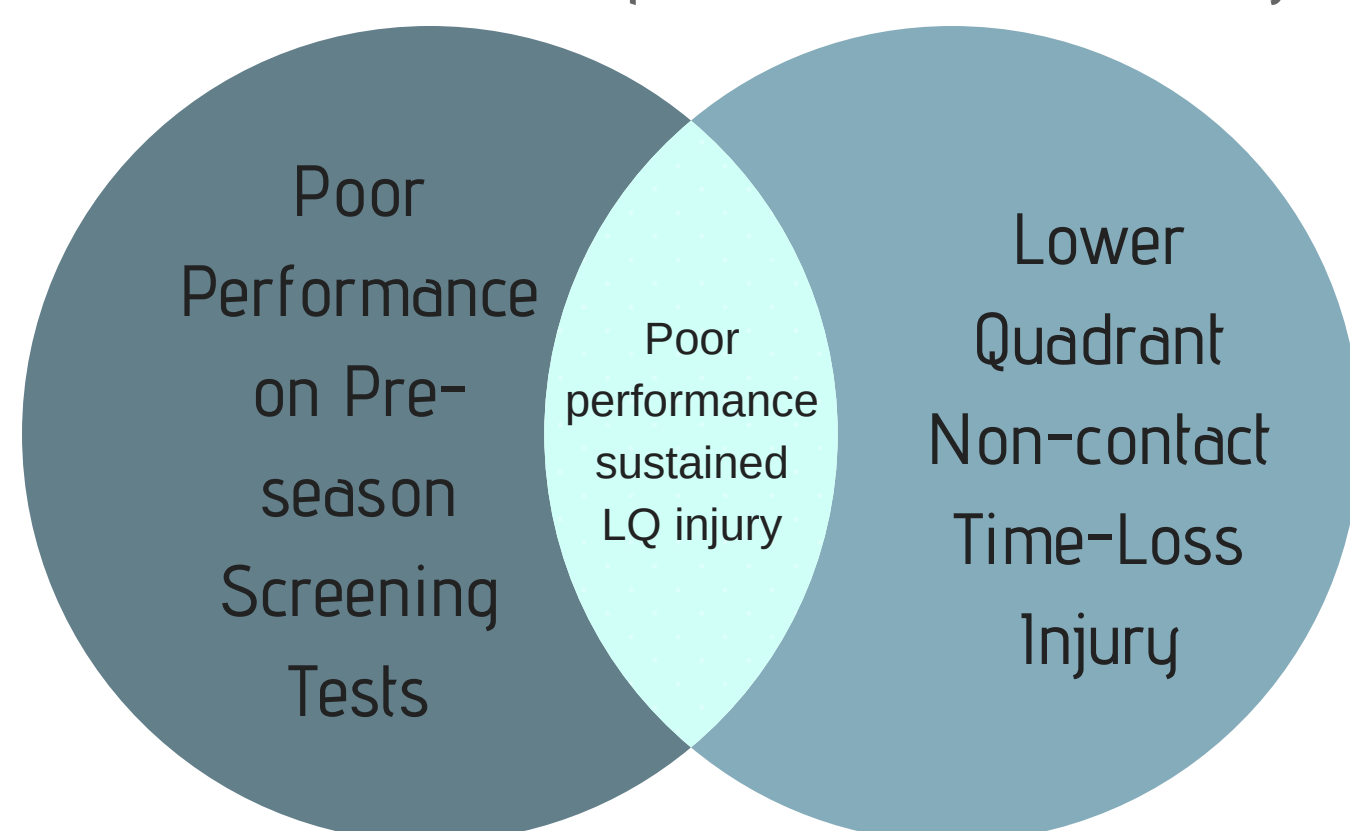


## Purpose

Prior research has demonstrated a 4-fold greater risk of a non-contact time-loss lower quadrant injury in collegiate female VB players (3). The purpose of this study was to validate effectiveness of functional performance tests to discriminate injury risk in female collegiate volleyball players.

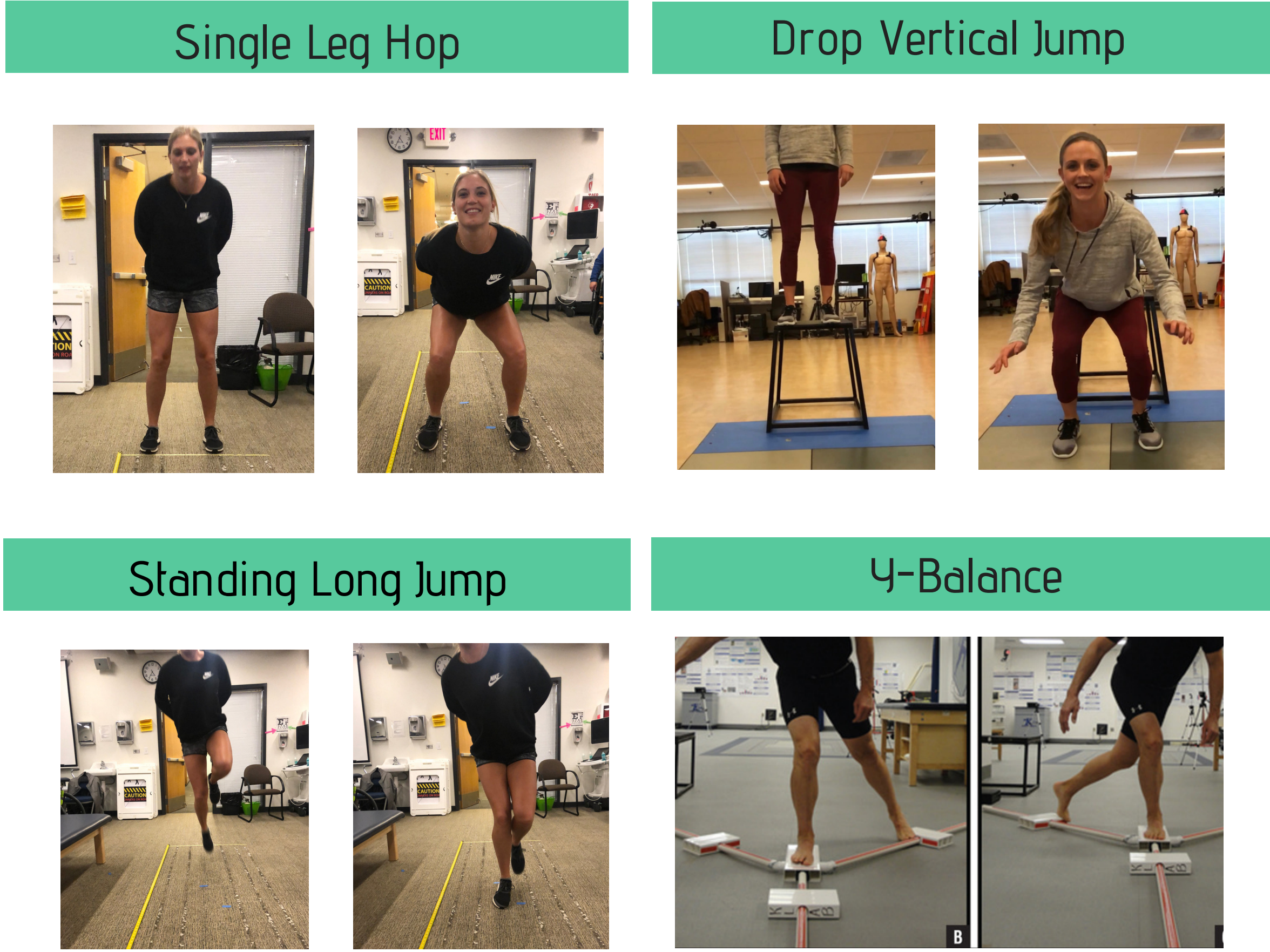
## Hypothesis

One or more pre-season screening tests will be associated with a non-contact lower quadrant time loss injury.



## Methods

131 Female collegiate volleyball players from NCAA D1I, D1II, and NAIA teams



## Results Cont.

### Crude Odds Ratios Associated with Test Performance and Injury

Characteristic	Odds Ratio (95% CI)	p-value
Standing Long Jump		
80% or above	Reference	
79% or below	2.0 (0.7, 5.4)	0.149
R Single-Leg Hop		
70% or above	Reference	
69% or below	1.3 (0.5, 3.6)	0.657
L Single-Leg Hop		
70% or above	Reference	
69% or below	1.3 (0.5, 3.7)	0.603
Jump and Hop Scores		
Two or fewer FPTs below cutoff scores	Reference	
All 3 scores below cutoff scores	1.8 (0.7, 4.8)	0.21
Lower Extremity Functional Test		
117 s or less	Reference	
118 s or more	1.6 (0.6, 4.4)	0.366
Jump, Hop, and LEFT Scores		
Three or fewer FPTs below cutoff scores	Reference	
All 4 scores below cutoff scores	2.5 (0.8, 8.1)	0.121
Limb Symmetry Index (LSI)		
10% or less	Reference	
>10 %	0.8 (0.3, 2.1)	0.603
Jump, Hop, LEFT, LSI		
Four or fewer below cutoff scores	Reference	
All 5 scores below cutoff scores	0.7 (0.1, 5.7)	0.721
YBT R Composite Scores		
94% or more	Reference	
<94%	0.8 (0.3, 2.2)	0.603
YBT L Composite Scores		
94% or more	Reference	
<94%	0.7 (0.2, 2.0)	0.464
YBT (B) Composite Scores		
No	Reference	
Yes	0.8 (0.3, 2.5)	0.727

## Results

### Mean (SD) Functional Performance Test Scores

Test	Mean (SD)
N = 131	
Standing Long Jump (% ht)	0.81 (0.10)
(R) Single Leg-Hop (% ht)	0.65 (0.12)
(L) Single Leg-Hop (% ht)	0.65 (0.12)
Lower Extremity Functional Test (s)	111.8 (10.4)
YBT (R) Composite Score	99.68 (13.1)
YBT (L) Composite Score	100.14 (12.2)

## Conclusion

There were no associations between preseason test performance and injury risk. This study was unable to validate the prior study. No individual test or combination of tests were associated with future risk of non-contact time-loss injury. The tests utilized in this study are not beneficial in predicting athletes prone to injury.

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