

ORIGINAL RESEARCH

RELATIONSHIP BETWEEN THE Y BALANCE TEST SCORES AND SOFT TISSUE INJURY INCIDENCE IN A SOCCER TEAM

Alfonso Calvo Gonell, MsN¹José Aurelio Pina Romero, MsN²Loreto Maciá Soler, PhD³

ABSTRACT

Background: Although the dynamic balance has been proposed as a risk factor for sports-related injuries, few researchers have used the Y balance test to examine this relationship. The purpose of this study was to determine if the Y Balance Test (YBT) is a valid test for determining subjects susceptible to soft tissue injury among soccer players on a professional team.

Study Design: Prospective cohort

Methods and Measures: Prior to the 2011 football (soccer) season, the anterior, posteromedial and posterolateral YBT reach distances and limb lengths of 74 soccer players were measured. Athletes' physiotherapists documented how many days the players were unable to play due to the injuries. After normalizing for lower limb length, each of the reach distances, right/left reach distance difference and composite reach distance were examined using odds ratios and logistic regression analysis.

Results: Logistic regression models indicated that players with a difference of equal or greater than 4cm between lower limbs in posteromedial direction were 3.86 more likely to sustain a lower extremity injury ($p=0.001$). Results indicate that players who had lower scores than the mean in each reach direction, independently, were almost two times more likely to sustain an injury.

Conclusions: The results suggest that YBT can be incorporated into physical examinations to identify soccer players who are susceptible to risk of injury.

Key Words: Balance/postural stability, injury prevention, lower extremity

Level of evidence: 2b

CORRESPONDING AUTHOR

Alfonso Calvo Gonell

Physiotherapist, Private Practice

12001 Castellón de la Plana (Spain)

+ 334647419041

E-mail: info@fisioterapiaalfonsocalvo.es

¹ MSN (Master Science in Nursing) Science of Health Doctoral Student (at time of study), University Jaume I, Castellón de la Plana, Spain.

² MS Teacher Collaborator. Master Degree Program, University Jaume I, Castellon de la Plana, Spain.

³ Science of Health Doctoral Program Chair, University Jaume I, Castellón de la Plana, Spain.