Title Lower Extremity Injury and Y-Balance Scores in Division I Women's Soccer

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ABSTRACT

The Y-Balance Test (YBT) is a functional, portable assessment used to examine stability and mobility in the lower extremities (LE). However descriptive YBT data and how scores may compare across healthy and previously injured women's soccer players is scarce but in demand. **PURPOSE:** The purpose of this study was to explore the difference in YBT scores in female collegiate-level soccer athletes with and without a recent history of LE injury. **METHODS:** Twenty-two Division I female soccer players completed a YBT during pre-season. All of the subjects were cleared for testing by the head athletic trainer and the team physician and had no current LE injury precluding them from participating. Players were also asked to self-report if they had experienced a lower extremity injury or surgery in the prior twelve months, which divided the sample into two groups – those who did report having a LE injury in the past 12 months (LEI; n = 13, age = 19.9 ± 1.4 y, height = 166.9 ± 6.9 cm) and those who did not (LEI-N; n = 9, age = 19.8 ± 1.7 y, height = 169.2 ± 7.9 cm). Standardized approaches were used for the YBT to obtain scores for all three directions (anterior, posterior medial, posterior lateral) for both legs, along with the measurement of right and left leg length to determine a composite score for both legs. Descriptive statistics were calculated as mean ± standard deviation. **RESULTS:** The LEI group had a lower YBT composite score compared to the LEI-N group on the left side (86.0 ± 26.6 vs 90.04 ± 9.1 %) and the right side (85.2 ± 26.4 vs 87.2 ± 8.0 %). **CONCLUSION:** YBT screening during pre-season may help identify ongoing imbalances in soccer players with a prior LE injury, even after they have been cleared to practice or condition by the sports medicine team. However, ongoing research is needed comparing YBT scores prior to the injury to further support the use of the YBT in this manner.