The Effectiveness of a Balance Training Intervention in Reducing the Incidence of Noncontact Ankle Sprains in High School Football Players

Reference:

Scientific Literature Reviews

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Podiatry Relevance:
High school football players are prone to ankle inversion injuries. A high body mass index and previous history of ankle sprains are factors which increase the risk of sustaining an ankle sprain. The objective of this study was to determine whether stability pad balance training would reduce the incidence of inversion ankle sprains in football players with an increased risk.

Methods:
Initially, height, body mass, history of previous ankle sprains and current ankle brace/tape were documented in 2 high school football teams for 3 years. A total of 125 players participated. Players were then categorized as minimal, low, moderate or high risk based on history of a previous ankle sprain and body mass index. Players with low, moderate or high risk were placed on balance training exercises, for five minutes on each leg, five days a week, for 4 weeks preseason and twice per week during football season. Of the 125 players, 79 were followed for one season, 42 were followed for 2 seasons, and 4 were followed for 3 seasons. A total of 175 player seasons were evaluated. Noncontact injury incidence was compared prior to balance training and subsequent to the intervention.

Results:
Of the 175 player-seasons, 116 were assigned to and complied with the intervention. Injury incidence prior to intervention was 2.2 per 1000 exposures and 0.5 (P<.01) after the intervention. Overall, a 77% reduction in injury incidence was observed.

Conclusions:
Although bracing is commonly used for athletes, this cohort study demonstrates the efficacy of stability pad balance training in decreasing the risk of noncontact inversion ankle sprains in football players.