Ankle ligament sprains are the most common injury that result from participation in sports

Overwaterman BR et al. Risk factors for syndesmotic and medial ankle sprain. BMI, HTH and FWI are each strong predictors individually, but were not retained in the logistic regression analysis model

An injury that required evaluation by athletic trainer and modification of sport activity to any extent

Lateral, medial, and syndesmotic ankle sprains account for approximately 13% of all football injuries

Beynnon BD et al. First incidence of ankle sprain risk factors. MOI (kg-m)

Anthropometric

The majority of ankle sprains occurred within the first 7 weeks of participation, but difference between groups persisted (Fi

McHugh MP et al. The effectiveness of balance training intervention in reducing the incidence of noncontact ankle sprains in

Self

Core

Anthropometric

Logistic regression analysis used to identify a set of 3 strongest predictors: Hx, MOI and BMI. Each of the factors retained by logistic regression analysis yielded an adjusted odds ratio greater than 2.5

Studies pertaining to risk factors for ankle sprain occurrence have generated inconsistent findings

Identification of players who possess elevated risk may enhance the effectiveness of preventive interventions

Age (yr)

Risk factors for ankle sprain occurrence in college football players


SH Hx ≥3

Risk group

5-factor model was chosen as either ≥Lo Risk (0

RESULTS

• Over the course of the two seasons, 28 ankle sprains were sustained by 26 players

• 20 lateral, 1 medial, and 7 syndesmotic

• Anthropometric factors, soft tissue factors, and previous lower extremity injuries were found to be stronger than core endurance performance values as predictors of ankle sprain (Table 1)

• Backward step-wise logistic regression analysis yielded a 5-factor prediction model that included:

• Playing in ≥4 games

• Previous ankle injury score ≥5

• History of hamstring strain (HS Hx)

• MOI (kg m2)

• History of low back or sacralises injury (LBSI Hx)

• Each of the factors retained by logistic regression analysis yielded an adjusted odds ratio greater than 2.5

• A 5-factor prediction model with ≥2 positive factors was found to have an OR of 6.75 and RR of 5.31

• The same prediction model with ≥3 positive factors was found to have an OR of 6.19 and RR of 4.97

Ankles sprain ligaments are the most common injuries sustained by athletes participating in football. Considerations should be made by athletic trainers to modify the sport activity to prevent these injuries. A comprehensive understanding of the injury risk factors can affect the injury risk and the magnitude of the injury.

Ankle sprain injuries are common among football players. Several studies have reported factors associated with ankle sprain injuries, but the most consistent risk factors are anthropometric factors, history of previous ankle sprain, and lower extremity injury. However, these factors have been inconsistent across multiple studies, leading to a need for additional research to provide more accurate results. This study evaluated the risk factors associated with ankle sprain injuries in college football players and found that BMI, horizontal trunk hold (HTH), and wall sit hold (WShH) were strong predictors individually. Additionally, the history of previous ankle sprain was not retained in the logistic regression analysis model. The results of this study highlight the importance of understanding the risk factors associated with ankle sprain injuries in college football players and suggest that future research should focus on identifying modifiable factors that may be targeted for prevention efforts.