RESEARCH TO
CLINICAL PRACTICE
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NATA RESEARCH & EDUCATION FOUNDATION

Syndesmotic/High Ankle Sprains

Syndesmotic, or 'high,' ankle sprains can cause substantial pain and loss of function. Individuals who sustain a high ankle sprain may experience a prolonged return to activity or need surgical intervention. Appropriate management and rehabilitation can help preserve a patient's joint health and more safely return them to activity following this injury. Review the resources below to supplement and enhance your evaluation and management strategies.

highlights Free Communications Program

Rehabilitation and return to sport in an in-season Division I quarterback following surgical management for a high ankle sprain. *(Blickman et al, 2022). S-235.*

Hardware removal and postoperative tightrope fixation complications in a male collegiate football player: Level 3 exploration CASE study. *(Simpson et al, 2021).S-259.*

RESOURCES

Position Statement
Conservative Management and Prevention of Ankle Sprains in Athletes

Infographic
NATA: Ankle Sprain

JAT Special Issue
Journal of Athletic Training 2019 Special Issue on Ankle Sprains June Volume 54, Issue 6

from Recent Articles

Incidence rate of high ankle sprains across a variety of sports was 0.38/1000 athlete-exposures, lower than lateral but higher than medial ankle sprains. Proportions of high ankle sprains were higher in football, particularly at the professional level, than other sports. *Herzog et al., 2019, JAT, Epidemiology of ankle sprains and chronic ankle instability.*

Approximately 22% of all ankle sprains in high school athletes were to the syndesmotic joint, with highest rates in boys' basketball, boys' football, and girls' basketball. Approximately 9.5% of syndesmotic sprains resulted in >21 days of activity restriction, while 33.5% resulted in <7 days restriction. *Kerr et al., 2022, JAT, The epidemiology of ankle sprains in United States high school sports, 2011/12-2018/19 academic years.*

Plain X-ray was recommended first, with CT next as more sensitive and specific to identify diastasis widening and fractures. MRI was highly sensitive and specific to diastasis injury, but patients may have to wait longer to obtain the imaging and some patients may have contraindications to MRI. *Ng et al., 2022, J Med Radiat Sci, Which test is the best? An updated literature review of imaging modalities for acute ankle diastasis injuries.*

Moderate evidence indicates the TightRope™ surgical fixation system following syndesmotic injury offered shortened time to return and similar clinician and patient-reported outcomes to metallic screw fixation. *Benson et al., 2021, Journal of Sport Rehabilitation, Effectiveness of the TightRope® fixation in treating ankle syndesmosis Injuries: A critically appraised topic.*

While a high percentage of athletes return following syndesmotic injury, it took an average of 52 days. Surgical management return averaged 71 days, while non-surgical was 39 days. *Salameh et al., 2022, Foot & Ankle Orthopaedics, Return to play after isolated syndesmotic ligamentous injury in athletes: A systematic review and meta-analysis.*