

# Foot and Ankle Update

## Casper Orthopedic Associates



### "Forefoot Sprains-Turf Toe"

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## Turf Toe

Forefoot sprain was largely unknown until the mid 1970's. The term "Turf Toe" was popularized in 1976 and was attributed to flexible shoes and the increasing use of artificial turf. *Sports Illustrated* highlighted this injury in 1978. The true incidence of this injury is unknown. Surgeons rarely encounter this injury except in severe cases as less severe injuries

are managed by trainers and coaches. The mechanism of injury is an acute hyperextension of the great toe. This hyperextension tears the stabilizing structures on the plantar aspect of the great toe resulting in significant pain. A less common forefoot sprain is "sand" toe occurring in sand volleyball players. This is a hyperflexion injury as the toes curl under the forefoot causing injury to the stabilizing structures on top of the toe.

## Management

Forefoot sprain can be classified into three types. **Grade 1** sprains result in pain but the athlete is able to bear weight and motion is minimally restricted. **Grade 2** sprain results in partial tearing of the stabilizing structures with more pain and limping. Athletic activity is impaired. **Grade 3** sprains results in complete tearing of the stabilizing structures with marked limitation of motion and weight bearing is severely impaired. Play is not possible.

**Grade 1** sprains are managed with taping, early motion, and return to play. Usually, no time is lost from athletics. **Grade 2** sprains usually result in 3-14 days of lost play time. Ice and rest are initially used with taping and joint motion beginning within several days. **Grade 3** injuries result in loss of play for 2-6 weeks. Surgery may be needed with severely unstable injuries or if non surgical treatment fails. Stiffened insoles can be utilized to prevent re-injury and also to help return an athlete to play. Severe injuries can result in long term deficits.

## Conclusion

Severe forefoot sprains can potentially cause long term functional deficits. Surgery is rarely needed but referral to an orthopedic surgeon experienced in these injuries should be considered in any athlete with significant swelling, restricted range of motion, and impaired weight bearing. A turf toe taping protocol can be found at [www.mattmitchellmd.com](http://www.mattmitchellmd.com) under physical therapy protocols.



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