

## Comprehensive Mini Review on Acute Ankle Sprain

Rudra Shahu\*

Department of Orthopedics, St John's Medical College, India

### Abstract

Ankle sprains are among the most common injuries encountered in both athletic and non-athletic populations, often resulting from sudden inversion or twisting of the ankle. This comprehensive review aims to provide a detailed overview of acute ankle sprains, including their mechanisms of injury, clinical assessment, management strategies, and rehabilitation approaches.

**Keywords:** Ankle sprains; Clinical assessment; Management strategies; rehabilitation approaches

### Introduction

The review begins with an exploration of the anatomical structures involved in ankle stability, including the lateral ligament complex and the role of proprioception in maintaining joint integrity. Mechanisms of ankle sprains, such as excessive inversion or dorsiflexion, are discussed, along with risk factors predisposing individuals to injury, including previous ankle sprains, inadequate footwear, and biomechanical factors [1,2].

### Description

Clinical assessment techniques for acute ankle sprains are then detailed, encompassing a thorough history-taking, physical examination, and diagnostic imaging modalities such as X-rays and Magnetic Resonance Imaging (MRI). Grading systems, such as the widely used "Mild, Moderate, Severe" classification, aid in stratifying the severity of ligamentous damage and guiding treatment decisions [3,4]. Management strategies for acute ankle sprains are outlined, beginning with the immediate management principles of the RICE protocol (Rest, Ice, Compression, Elevation) and analgesic medication to alleviate pain and swelling [5]. The role of functional bracing, taping, or splinting in providing external support and protecting the injured ankle during the early stages of healing is discussed, along with the indications for immobilization versus early mobilization [6,7].

Furthermore, the review delves into the rehabilitation phase of ankle sprains, emphasizing the importance of early mobilization, range of motion exercises, and progressive strengthening and proprioceptive training to restore ankle function and prevent chronic instability [8]. Various rehabilitation protocols, including the use of balance boards, proprioceptive exercises, and sport-specific drills, are explored, highlighting their effectiveness in improving neuromuscular control and reducing the risk of recurrent sprains [9]. Finally, injury prevention strategies are addressed, including the implementation of neuromuscular training programs, proper footwear selection, and biomechanical assessments to identify and address underlying deficits contributing to ankle instability [10,11].

### Conclusion

In conclusion, acute ankle sprains pose significant challenges to both athletes and non-athletes alike, necessitating a comprehensive approach to management that spans from initial assessment through rehabilitation and injury prevention. By implementing evidence-based strategies and fostering collaboration among healthcare professionals, optimal outcomes can be achieved, enabling individuals to safely return

to their desired activities and minimize the risk of future sprains.

### References

1. Clanton TO (1989) Instability of the subtalar joint. *Orthop Clin North Am* 20: 583-592.
2. Hertel J (2002) Functional anatomy, pathomechanics, and pathophysiology of lateral ankle instability. *J Athl Train* 37: 364-375.
3. Drakos M, Behrens SB, Mulcahey MK, Paller D, Hoffman E, et al. (2013) Proximity of arthroscopic ankle stabilization procedures to surrounding structures: an anatomic study. *Arthroscopy* 29: 1089-1094.
4. Karlsson J, Lansinger O (1993) Chronic lateral instability of the ankle in athletes. *Sports Med Auckl NZ* 16: 355-365.
5. Maffulli N (2006) Epidemiology of sprains of the lateralankle ligament complex. *Foot Ankle Clin* 11: 659-662.
6. Girard P, Anderson RB, Davis WH, Isear JA, Kiebzak GM (1999) Clinical evaluation of the modified Broström-Evans procedure to restore ankle stability. *Foot Ankle Int* 20: 246-252.
7. Keefe DT, Haddad SL (2002) Subtalar instability. Etiology, diagnosis, and management. *Foot Ankle Clin* 7: 577-609.
8. Smith RW, Reischl SF (1986) Treatment of ankle sprains in young athletes. *Am J Sports Med* 14: 465-471.
9. Maffulli N, Ferran NA (2008) Management of acute and chronic ankle instability. *J Am Acad Orthop Surg* 16: 608-615.
10. Saltzman CL, Khoury GY (1995) The hindfoot alignment view. *Foot Ankle Int* 16: 572-576.
11. Vega J, Peña F, Golanó P (2016) Minor or occult ankle instability as a cause of anterolateral pain after ankle sprain. *Knee Surg Sports Traumatol Arthrosc* 24: 1116-1123.

**\*Corresponding author:** Rudra Shahu, Department of Orthopedics, St John's Medical College, India, E-mail: rudrashahu45@gmail.com

**Received:** 01-Feb-2024, Manuscript No: crfa-24-130165, **Editor assigned:** 02-Feb-2024, PreQC No: crfa-24-130165(PQ), **Reviewed:** 22-Feb-2024, QC No: crfa-24-126738, **Revised:** 26-Feb-2024, Manuscript No: crfa-24-130165(R), **Published:** 29-Feb-2024, DOI: 10.4172/2329-910X.1000507

**Citation:** Shahu R (2024) Comprehensive Mini Review on Acute Ankle Sprain. *Clin Res Foot Ankle*, 12: 507.

**Copyright:** © 2024 Shahu R. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.