# **Ankle Injury**

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## **Management of Lateral Ligament Ankle Sprain**

Grade 1 & 2 lateral ankle ligament sprains can generally be managed conservatively, while grade 3 ruptures (of the anterior talofibular & possibly other components of the lateral ligament complex) sometimes require surgical repair. With moderate to severe injuries, isolated lateral ligament sprains are rare. Other structures can be damaged and complicate the recovery.

## **Physiotherapy**

Early treatment is beneficial and may consist of:

- 1. RICE treatment: ice 2<sup>nd</sup> hourly for 20 minutes is recommended for the first 48 to 72 hours. Compression therapy is beneficial in the form of a compression bandage or tubular compression garment. The degree of rest and elevation with vary from case to case. While a short period of non-weight-bearing may be recommended for some, early mobilization and functional exercises may be indicated for the milder sprain.
- 2. Joint mobilization. Research has shown benefits of joint mobilization in providing earlier restoration of range of motion and function when used in the acute management of ankle sprain.
- 3. Calf stretching. Dorsiflexion range of motion is invariably lost during the early to intermediate stages post-injury. This is mostly due to articular restriction, however a calf stretching programme can help to reverse some of this restriction. [Incidentally I find monitoring of ankle dorsiflexion range to be

- an important measure of progress and prognosis over the course of recovery].
- 4. Ankle strapping. Once swelling has settled or stabilized, rigid sports strapping can be used for compression, and to give support to encourage return of function.
- 5. Range of motion exercises. Promoted early, range of motion exercises can help to encourage effective tissue healing and return to normal function.
- 6. Strength, balance and proprioceptive exercises are used progressively to encourage full recovery and return to sport.
- 7. Prophylactic programme. Research shows that the ankle is at risk of re-injury for 6-12 months post-sprain. Patients are given a longer-term strength and balance programme on discharge.

#### **Medical Management**

Anti-inflammatory medications are frequently prescribed for acute ankle sprains. However, there is no research evidence showing their benefit. (Brukner & Khan 2012).

Surgical management of more severe sprains is controversial. Many studies have shown better results with conservative management, even with complete ligament rupture. However persistent ankle instability due to chronic grade 2 or grade 3 injury may need to be managed surgically. This will ideally involve ligament repair. Previously used tendon transfer procedures are out of favor due to high complication rates.

Rehab post-surgery is now based on an accelerated programme. Immobilisation is avoided, as tissue healing is quicker, stronger and more complete with guided movement and exercise. After 3-4 weeks of gentle ROM, stretching and strengthening, exercises are progressed to include graded resistance, proprioceptive exercises, and running as early as 6 weeks. In elite athletes, return to sport may be as early as 8 weeks.

#### **References:**

Brukner P & Khan K (2012). <u>Clinical Sports</u> Medicine, 4th ed. McGraw Hill.

Clayton, J (2017). Complications of an ankle sprain. Sports Physio, 2, 6-9.

Green, T et al (2001). A randomized controlled trial of a passive accessory joint mobilization on acute ankle inversion sprains. <u>Physical Therapy</u>, 81, 4, 984-994.

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