

# TWO COMMON CONDITIONS

## Bunions and ankle sprains/injuries

**A sprained ankle is a very common injury that can happen to anyone from children up to adults and athletes to non athletes and can happen when simply stepping on an uneven surface or incline to actual high impact sporting/physical activities.**

Ligaments are connections between bones that hold the bones and joints in the correct position and they protect the joint from excessive motion during a variety of twisting, turning and rolling motions of the foot and ankle.

When a ligament is pushed beyond its normal range a sprain occurs.

If the sprain is severe then actual tearing of the ligament can ensue.

Sprains therefore usually happen when the foot and ankle gets twisted beyond its normal range of motion. A heavy load is normally transmitted on the joint in this vulnerable position causing the ligament to stretch beyond its normal range in an abnormal position resulting in either ligament tears or fractures of the bone that the ligaments are attached to.

It is common for people to experience hearing a pop and most commonly there is immediate pain, swelling with difficulty taking weight on the leg and ankle.

**Ligament sprains are divided into three grades.**

- **Grade I is a mild stretching with minor damage to the ligament fibres**
- **Grade II is a partial tear of the ligament**
- **Grade III is a complete tear of the ligament with increased looseness or laxity across the ankle joint itself**



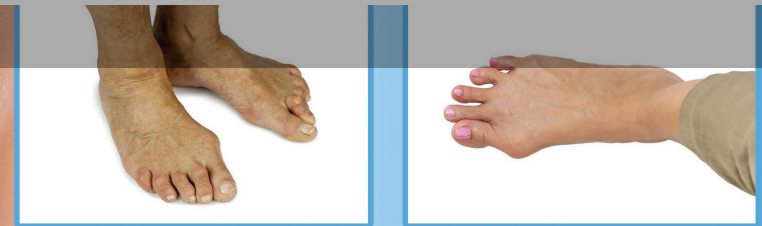
With Grade I injuries there is usually mild swelling, tenderness and with the ability to bear weight reasonably quickly over the next few days. With Grade II injuries there is marked swelling and bruising, some ongoing difficulty weight bearing and Grade III injuries have significant swelling, are very tender and feel as if the ankle bone itself is broken.

Grade I mild sprains are treated by:

- Rest**
- Ice**
- Compression**
- Elevation**

Isometric exercises and range of movement/stretching strengthening exercises as tolerated. There is no evidence for use of splints or casts.

Grade II and Grade III ligament injuries usually require some form of immobilisation in the initial phase followed by physiotherapy with range of motion stretching strengthening exercises.



**A bunion, otherwise known as a hallux valgus, is a deformity that causes a broad foot with bony prominence on the instep area of the big toe joint with associated overlying tissue inflammation and colour change, known as bursitis. Bunions are much more common in women, tend to run in families and can happen irrespective of the type of footwear people choose to wear.**

Shoes that are relatively tight however bring on pain. Often by this stage people find it hard to buy shoes commercially as the size and width required as a result of the gradual progression of the deformity are not available.

Wearing tighter shoes generally can cause other disabling foot problems like corns, calluses and hammer toes in addition to bringing on pain from the bunion.

In the early stages medical treatment will provide relief from bunions and possibly delay any deterioration. The treatment includes choosing shoes that conform to the shape of the foot, usually requiring shoes with a wide instep, broad toe area and soft soles, one needs to avoid shoes that are short, tight, sharply pointed and limit the heel height to about 2 ¼ inches.

Other treatment such as toe spacers and padded splints can be used to reduce symptoms but are usually not well tolerated in shoes.

It is also advisable to undertake conditioning work to the legs including a stretching programme with exercises to maintain balance of the Achilles tendon, arch supporting muscles and the short intrinsic muscles of the foot. Once the bunion has progressed to the point where one cannot find shoes or is experiencing pain despite wearing appropriate footwear and have difficulty walking then it is highly likely that you will need surgery.

The aim of bunion surgery is to re-align the bone, ligaments and tendons and to preserve the nerves so that the joint is re-aligned back to its correct position. As the bone is physically cut to provide this re-alignment internal pins and screws are used to maintain the new position whilst the surgical fracture created heals. There are several techniques available and some of the tried and trusted techniques can be safely reproduced using minimally invasive surgical (keyhole) techniques by experienced orthopaedic surgeons.

**Rohit Madhav** is a highly experienced Consultant Orthopaedic Surgeon with specialist training both in the UK and Internationally in complex foot and ankle surgery. With over 8 years of experience at University College Hospital in London and with many professional and amateur athletes and dancers, and as a founding partner of the London Orthopaedic Clinic, he has a well-established and reputed private practice in central London. He has many ankle based research and educational publications to his name and is often invited to lecture.

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