Todd Gothelf

MD(USA), FRACS, FAAOS, Dip. ABOS

Foot, Ankle, Shoulder Surgeon

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Orthopaedic Surgeons

J. Goldberg
A. Turnbull
R. Pattinson
A. Loefler
J. Negrine
I. Popoff
D. Sher
T. Gothelf

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J. Best
M. Cusi
P. Annett

The Acute Ankle Sprain

You have been diagnosed with an “ankle sprain”, a general term for a twisting injury to the ankle. During a violent twisting episode to the ankle, the normal structures are stretched or impacted beyond their limits, resulting in injury. The structures injured during an ankle sprain are the **anterior talofibular ligament (ATFL) and calcaneofibularligament(CFL).** These ligaments attachthe ankle bones together and can stretch or tear during a sprain, causing massive bleeding and swelling.

An Acute ankle sprain is the most common injury to the lower extremity. About 2000 ankle sprains occur a day in Australia. A sprain occurs when ligaments around the ankle tear. As a rule, these ligaments heal without requiring surgery, and 90 percent of cases return to normal function. The time frame to full recovery may vary, but usually this occurs **within three months**.

INITIAL TREATMENT involves controlling the pain and swelling. RICE therapy(Rest, Ice, Compression, Elevation) is followed for about two weeks.**Rest** means avoiding walking when possible. **Ice-** Place ice in a sealed bag and place over the ankle with a towel protecting the skin to avoid freezer burn. Ice for fifteen minutes then let the ankle resume its normal temperature prior to icing again. **Compression**- A splint or wrap will compress the ankle to keep the swelling down. This can be obtained from the Chemist or from your physiotherapist. **Elevation**- Keep the ankle on pillows lying down ideally so that the ankle is above the level of your heart.

WALKING begins with crutches, putting weight on the ankle only as tolerated. You are allowed to put weight on the ankle when it is comfortable to do so, usually from three to seven days from the injury.

PHYSIOTHERAPY can be very helpful after an ankle sprain. During the initial phase of injury, the muscles weaken and the ankle stiffens from lack of use. Once the swelling reduces and the pain subsides, a physiotherapist can work on range of motion, progressing to strengthening and balancing exercises. The guide of a physiotherapist can help you to expedite recovery to full function and will help to reduce the chance of re-injury when returning to sports.

160 Belmore Rd, Randwick 2031 Ph 9399 5333 Fax 9398 8673
47-49 Burwood Rd, Concord 2137 Ph 9744 2666 Fax 9744 3706
2 Pearl St, Hurstville 2220 Ph 9580 6066 Fx 9580 0890
1A Barber Ave, Kingswood 2747 Ph 4721 1865 Fx 4721 2832

X-RAYS are ordered when there is a suspicion of a bony injury or fracture. Other investigations are usually unnecessary initially, as they **will not** alter treatment course. An ULTRASOUND or MRI will initially show ruptured ATFL and CFL ligaments. This is an **expected finding** and is **normal** for an ankle sprain. These ligaments will scar and re-stabilise 90% of the time and surgery is not routinely needed.

RESEARCH has shown that the speediest and healthiest recovery from an ankle sprain involves early walking return to normal function when comfortable. I prefer to utilise an ankle brace, stirrup, or boot. These will provide stability to the ankle and allow the patient confidence when walking that they will not re-injure the ankle. The brace can be discontinued when the pain resolves and walking with out the brace returns to normal, usually in 4-8 weeks.

WHAT IF MY ANKLE SPRAIN DOES NOT GET BETTER?

About 10% of ankle sprains will not recover as described above. Pain and swelling may persist past three months, or symptoms may be more severe than expected. In these situations, I will order further investigations to look for other damage. Other injuries might include cartilage damage, tendon tears, fractures, scar tissue, or inflammation. An MRI will demonstrate all of these possibilities well.

Treatment will vary depending on what is found on the MRI. The treatment options include further physiotherapy, cortisone injections, or surgery. If an MRI is performed, I will go through the results in detail to explain what treatment is needed.

IN SUMMARY:

- 90% of all ankle sprains will fully recover.
- The speediest recovery is NONOPERATIVE management, with early weightbearing and physiotherapy
- A brace usually helps to allow early weightbearing with confidence
- Investigations are only needed when recovery is slower than expected