

Brent Roster, MD

Foot and Ankle Sprains

The Injury

Ankle and foot sprains are very common injuries that are usually the result of the ankle turning inward. A “sprain” is a tearing or stretching of the ligaments that connect the ankle bones to the heel bone, or the back of the foot to the middle of the foot.

Sprains can be painful, and can lead to chronic problems if not treated properly. Immediate treatment will promote complete healing and allow for a safe and quick return to activity.

Contributing Factors

Certain problems can make a person more susceptible to ankle and foot sprains, they include:

- Previous Injury
- Muscle Weakness or Imbalance
- Inappropriate Footwear
- Obesity
- Family trait of ligament looseness
- High-arched feet



Severity

Ankle and foot sprains are separated into three grades of severity. Recovery time from the sprain increases with severity.

- **Grade 1.** This is the most common grade, and if not neglected, the most minor. The ligaments connecting the bones are “stretched” or “microtorn.” Often only the superficial ligaments are torn. There is often a small amount of swelling, but little or no instability or “giving way” of the ankle. Average return to sports is 1 – 3 weeks.
- **Grade 2.** A greater portion of the ligaments are torn, including some of the deeper parts of the ligaments. There is immediate pain and swelling. Bruising on the outside and top of the foot or ankle are common, and it is often painful to walk for the first 1-2 weeks. Average return to sports is 2-4 weeks and may require the use of a protective brace.
- **Grade 3.** The ligaments are torn completely, including all of the deep parts of the ligaments. Bruising on the outside, top, and inside of the foot or ankle are common, and it is often painful to walk for the first 2-3 weeks. Crutches may be necessary, and Dr. Roster may place you in a supportive brace or cast-boot for 2-3 weeks to allow the injury to heal. Surgery is sometimes needed. Average return to sports is 4-6 weeks with the use of a protective brace.



Treatment

Treatment is divided into four stages. The rate of progress depends on the severity of the injury, the health of the person, and proper rehabilitation. It may take more or less time to heal than the timeline provided below.

Stage 1 (2-5 days). To reduce pain and swelling, apply ice or a cold pack to the foot or ankle for 20 minutes at least 4-5 times per day. Placement of a towel around the ice bag is recommended to protect the skin. Compression of the ankle with a brace or elastic bandage will limit swelling. Elevate the foot/ankle above the heart (“toes above the nose”) as much as possible to reduce swelling. Use a splint if necessary. You may walk, but you may need crutches depending on the severity. If you do not have an allergy or medical problem that prohibits the use of anti-inflammatory medication such as ibuprofen, you can take the recommended amount for 7-10 days after the injury.

Stage 2 (5-14 days). You can walk, and can wean off the crutches as your pain dissipates. You can still use ice when the ankle swells. Let pain be your guide as to how much activity is enough. Your ankle will become stiff, so it is important to maintain a full range of motion and perform ankle pumps.

Stage 3 (10-14 days and after). This is the crucial time to begin a rehabilitation program to regain ankle range of motion and strengthen the supporting muscles.

Stage 4 (variable). Your foot or ankle must be strong before you return to full activities or sports. Returning too early, or without full rehabilitation may lead to chronic problems or instability.

Criteria for Return to Sports

Once you can stand on the toes of the injured ankle for 20 seconds and hop on your toes 10 times, you can begin to jog. Initially, you should jog in a straight ahead pattern until you are pain free. As you become stronger, you can progress to running a figure of eight. You can return to full sports when you can run a zig-zag pattern without pain or instability. Your ankle should be protected with a sports brace until you are fully rehabilitated. This could take up to six months.

Shoes

Athletic shoes that fit well and have good arch support are important to prevent injury. You should not wear running shoes or sandals to play cutting sports such as basketball, soccer, volleyball, or tennis.

Follow-up with Dr. Roster

Except in the most severe cases, you should be almost back to normal by 6-8 weeks. If you develop instability, have catching or locking, or have persistent swelling please make an appointment to see Dr. Roster