

# Foot and Ankle Update

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## Ankle Sprains

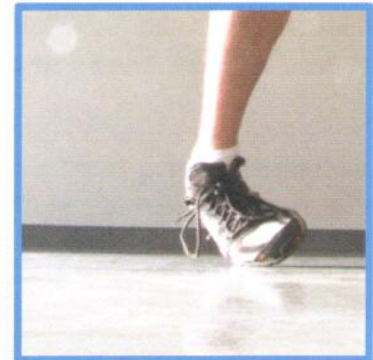


### “I sprained my ankle. Do I need to see a doctor?”

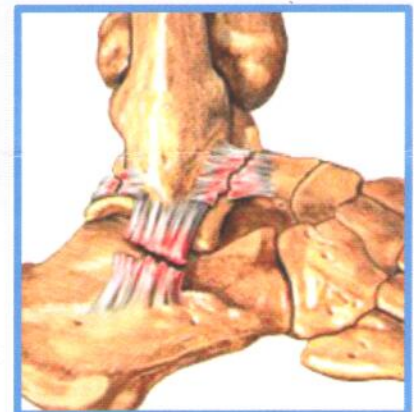
A sprain is a stretching injury to a ligament, one of the stabilizing bands that surround our joints. They can be minor stretches, with minimal swelling and discomfort (Grade 1), on up to a complete rupture (Grade 3), with significant swelling, bruising and pain.

The most common mechanism for an ankle sprain is an inversion injury where the ligaments on the lateral or outer side of the ankle are placed on stretch. With increasing force, these ligaments tend to tear from the front of the ankle to the back. These injuries are common in sports with jumping or cutting, such as basketball and football, but can occur with a simple misstep on an uneven surface.

If pain and swelling is mild, is isolated to the outer side of the ankle, and you are able to weight bear, with minimal discomfort, treatment can begin with RICE: Rest, Ice, Compression, and Elevation. However, you must be on the lookout for warning signs of a more significant injury: major swelling, tenderness over bone, pain on both sides of the joint, pain into the foot, any deformity, and difficulty weight bearing...



Inversion Injury



Lateral Ligaments

Continued on page 2







Continued from page 1

## More than a Sprain...

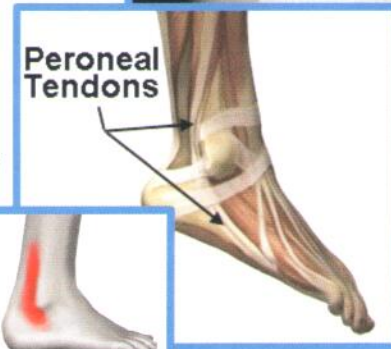
- A patient should be concerned enough to seek attention from a specialist such as an orthopedic surgeon when: there is excessive swelling or bruising (ecchymosis), inability to bear weight, or pain in other areas other than the front outside part of the ankle. Patients with altered sensation such as some diabetics must be especially cautious about missing an important injury.
- When pain, swelling, or bruising extend up the leg, this may be an indication of a **HIGH ANKLE SPRAIN** which is an injury to the ligaments between the tibia and fibula (syndesmosis) that make up the shin bones. This injury may require a period of non-weight bearing or even surgery if there is indication of separation between the bones on x-ray.
- Pain on both sides of the ankle or tenderness over bone on either side of the ankle may indicate a **FRACTURE** (same as a break). Some of these may require a period of immobilization, limited weight bearing, or even surgery.
- Tenderness or clicking in the back outside part of the ankle, behind the fibula, may indicate tearing or dislocation of the **PERONEAL TENDONS**. These injuries often require surgery to prevent tendon instability.
- Pain in the back of the ankle with difficulty pushing off or raising the heel may indicate an **ACHILLES TENDON RUPTURE**. Surgery may be recommended.
- Other fractures around the ankle can mimic or can be associated with an ankle sprain and can have significant disability if not recognized. These fractures may include: **NAVICULAR FRACTURES**, **ANTERIOR CALCANEUS FRACTURES**, **5<sup>th</sup> METATARSAL BASE FRACTURES**, and **OSTEOCHONDRAL FRACTURES OF THE TALUS**.
- **CONCLUSIONS:** The majority of ankle sprains, the most common of which occur with inversion of the foot and ankle, can be treated with RICE (rest, ice, compression, and elevation) and will not lead to long term pain or instability. However, if any of the above warning signs are present, it is advised that you seek consultation from an orthopedic specialist, at your earliest convenience.



High Ankle Sprain (Syndesmosis)



Ankle Fracture



Peroneal Tendon Injury



Achilles Tendon Rupture

Osteochondral Fracture of Talus



Navicular Fracture



Anterior Calcaneus Fracture



5<sup>th</sup> Metatarsal Fracture

