

Ankle Sprain

How and What?

- Ankle sprains are one of the most common orthopaedic injuries
- They occur when the ankle is rolled to the inside (Figure 1) often after the person steps on uneven terrain or lands awkwardly from a height.
- Sports such as basketball and volleyball are "high-risk" activities for ankle sprains
- Not everyone has the same risk for suffering an ankle sprain. Individuals with loose joints, high arched feet, and a past history of sprains are at higher risk.
- An ankle sprain causes the strong ligaments that stabilize the ankle joint on the outside to be partially (and in rare instances completely) torn.

Symptoms

Ankle sprains cause pain and swelling on the outside front part of the ankle (Figure 2). Individuals can often bear weight, but only with a limp.

X-Rays

X-rays of the ankle are not actually necessary to diagnose an ankle sprain as the description of the injury and the location of the pain alone can make for an accurate diagnosis. However, x-rays of the ankle are often ordered for severe ankle sprains to help "rule out" other injuries such as an ankle fracture.

Recovery

Ankle Sprains are generally classified as mild, moderate, and severe.

- Mild ankle sprain: 5-14 days recovery
- Moderate ankle sprain: 2-3 weeks recovery
- Severe ankle sprain: 3-12 week recovery with a 5-10% incidence of persistent ankle pain usually due to associated ankle injuries

Treatment

- R.I.C.E. (Rest, Ice, Compression, Elevation) is the initial treatment for ankle sprains.
- Long-term treatment focuses on minimizing the risk of a recurrent sprain by working on strengthening the muscles around the ankle and possibly using ankle bracing.
- Surgery immediately after an ankle sprain is not required except in rare instances where there is other associated injuries.
- Surgery may eventually be required if there are chronic problems such as recurrent ankle instability or chronic ankle pain that persist after a moderate to severe sprain.

Initial Treatment

Rest the leg so that the torn ligament has an opportunity to start healing

Ice the involved area to limit swelling. 10min with ice, 10 mins without, and then repeat.

Compression (not too tight) with a wrap such as Ace bandage can be helpful

Elevating the leg 10"-18" above the heart will help limit swelling to the area,

Anti-inflammatory pain medication such as Ibuprofen can help reduce symptoms.

Crutches may be necessary and beneficial during the early recovery period.

Early ankle motion (ex figure of 8 exercises) should be started (gently) when possible

Long-Term Management -Preventing recurrent ankle sprains!

Regular exercise therapy working on:

1. Strengthening the muscles that control the ankle, and
 2. Improving proprioception (Balancing exercises).
- Bracing (such as an ankle stirrup or ankle lacer) when returning to "high risk" activities

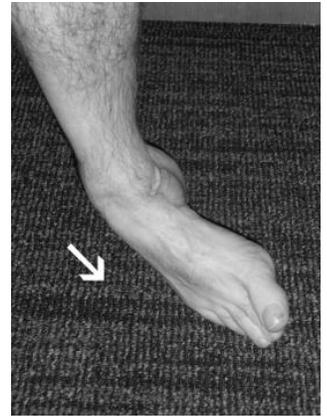


Figure 1:
Mechanism of Injury

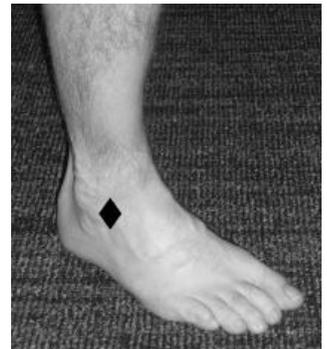


Figure 2:
Main area of Pain