

ANKLE SPRAIN, ACUTE

DESCRIPTION

Stretching and tearing of one or more ligaments in the ankle. A two-ligament sprain causes more disability than a single-ligament sprain. Sprains are classified into 3 grades: A *first degree* sprain, the ligament is not stretched or lengthened, but is painful. With a *second degree* sprain, the ligament is stretched but still functions. With a *third degree* sprain, the ligament is torn and does not function.

- *Lateral Ankle Sprains*: There are 3 ligaments of the outer (lateral) ankle. These are the most common sprains.
- *Medial Ankle Sprains*: There is one large triangular ligament of the inner (medial) ankle that is stronger and more compact making injuries to it less likely.
- *Syndesmosis (“High Ankle”) Sprains*: This is the ligament that connects the two leg bones just above the ankle. This ligament is usually injured when the sprain to the ankle is very severe.

FREQUENT SIGNS AND SYMPTOMS

- Pain, tenderness and swelling in the ankle, starting at the side of injury, that may progress to the whole ankle and foot with time.
- Pop or tearing sensation at the time of injury
- Some bruising may appear and spread to the heel.
- Impaired ability to walk soon after injury.

CAUSES

Stress imposed to the ankle that temporarily forces or pries the ankle bone (talus) out of its normal socket. The ligaments that normally hold the joint in place are stretched and/or torn. This usually is due to a twisting injury.

RISK INCREASES WITH

- Previous ankle sprain
- Activities in which the foot may land awkwardly (such as basketball, volleyball, and soccer) or walking or running on uneven or rough surfaces.
- Shoes with inadequate support to prevent sideways motion when stress occurs.
- Poor physical conditioning (strength/flexibility).
- Poor balance skills.
- Contact sports

PREVENTIVE MEASURES

- Appropriate warm up and stretching before practice or competition
- Appropriate conditioning:
 - Ankle/leg flexibility, muscle strength & endurance
 - Balance training activities
- Proper technique / coaching
- Taping, protective strapping, bracing and/or high top tennis shoes may help prevent injury. Initially, tape is best, however, it loses most of its support function within 10-15 minutes.
- Proper protective shoes (high top shoes with taping or bracing is more effective than either alone)
- Provide the ankle with support during sports and practice activities for 12 months following injury.

EXPECTED OUTCOME

A 1st degree sprain usually heals enough in 5-7 days to allow modified activity and requires an average of 6 weeks to heal completely. *A 2nd degree sprain* requires 6-10 weeks to heal completely, while a *3rd degree sprain* requires 12-16 weeks to heal. *A syndesmosis sprain* often takes more than 3 months to heal.

POSSIBLE COMPLICATIONS

- Frequent recurrence of symptoms resulting in a chronic, repetitive problem. Appropriately addressing the problem the first time decreases the frequency of recurrence and optimizes healing time. Severity of initial sprain does not predict the likelihood of later instability.
- Injury to other structures (bone, cartilage or tendon), and chronically unstable or arthritic ankle joint with repeated sprains.

GENERAL TREATMENT CONSIDERATIONS

Initial treatment consists of medication and ice to relieve the pain, compressive elastic bandage and elevation to help in reduce swelling and discomfort. A walking cast, walking boot or brace may be recommended to provide support to the joint while trying to walk with crutches for varying lengths of time depending on severity of injury. Surgical treatment is rarely necessary. After the inflammation and pain are reduced, regaining motion, strength and balance of the ankle are important to return to full capacity and in reducing recurrent injury.

MEDICATION

- Non-steroidal anti-inflammatory medications such as aspirin and ibuprofen (do not take within 7 days of surgery) are used to reduce inflammation. Take these as directed by your physician. Contact him/her immediately if any bleeding, stomach upset or an allergic reaction occurs. Other minor pain relievers, such as acetaminophen may also be used.
- Topical ointments may be of benefit.
- Pain relievers may be prescribed as necessary by your physician. Use only as directed and only as much as you need.

HEAT AND COLD:

- Cold is used to relieve pain and reduce inflammation for acute and chronic cases. Cold should be applied for 10 - 15 minutes every 2-3 hours for inflammation and pain, and immediately after any activity which aggravates your symptoms. Use ice packs or an ice massage. Cold compressive wrap may be used.
- Heat may be used prior to performing stretching and strengthening activities prescribed by your physician, physical therapist or athletic trainer. Use heat pack or a warm soak.

NOTIFY OUR OFFICE IF

- Pain, swelling, or bruising worsens despite treatment
- You experience pain, numbness, discoloration or coldness in the foot or toes.
- New, unexplained symptoms develop. Drugs used in treatment may produce side effects.