Treating the Ankle Sprain

Ankle 'sprains' are very common injuries. Typically the ankle is rolled either inward (inversion sprain) or outward (eversion sprain). Inversion sprains cause pain along the outside of the ankle and are the most common type. Pain along the inside of the ankle may represent a more serious injury to the tendons or to the ligaments that support the arch and should always be evaluated by a doctor.

A sprain can be difficult to differentiate from a fracture (broken bone) without an X-Ray. If you are unable to bear weight after this type of injury, or if there is significant swelling or deformity, you should seek medical treatment from a doctor (MD or DO). This may be your primary care physician or pediatrician, an emergency department, or an orthopedist depending on the severity of the injury.

Most ankle sprains do not require surgery, and minor sprains are best treated with a functional rehabilitation program. **"R.I.C.E."** is a useful term and stands for "Rest" "Ice" "Compression" and "Elevation."

The following exercises should be performed in stages once the initial pain and swelling have receded, usually within 5-7 days. First is restoration of ankle range of motion, which should begin when bearing weight on the affected extremity is tolerated. Once ankle range of motion has been completely or near completely restored, the ankle must be strengthened. Coupled with strengthening, is the concept of return of proprioception, or the ability of the ankle to feel 'stable' and comfortable. Consider these home exercises when recuperating from such an injury. Perform them at least twice per day. Remember, if things are worsening or have not begun to improve within a few days of the injury, see an orthopedist.

The R.I.C.E Formula

"Rest" the foot and limit weight bearing. Use crutches if necessary, but if there is no fracture you are safe to put some weight on the leg. An ankle brace often helps control swelling and adds stability while the ligaments are healing.

"Ice" on the ankle will also help. Don't put ice directly on the skin (keep a thin piece of cloth such as a pillow case between the ice bag and the skin) and don't ice more than 20 minutes at a time to avoid frost bite.

"Compression" can be helpful in controlling swelling and is usually accomplished with an ACE bandage.

"Elevate" the foot by propping it up above the waist or heart as needed. Remember, the more the foot is down, the more it will swell and hurt.

Ankle Sprain Stretching Exercises

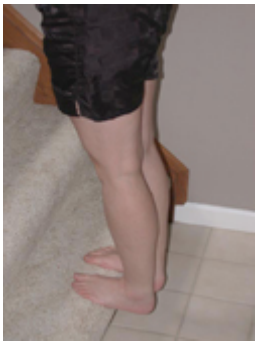
While seated, bring the ankle and foot all the way up as much as you can. Do this slowly, while feeling a stretch in your calf. Hold this for a count of 10. Repeat 10 times.

From the starting position, bring your ankle down and in. Hold this inverted position for a count of 10. Repeat 10 times.

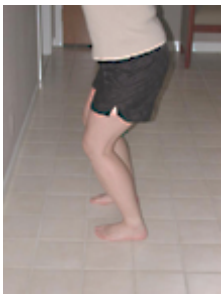
Again from the starting position, bring your ankle up and out. Hold this everted position for a count of 10. Repeat 10 times.

From the starting position, point your toes down and hold this position for a count of 10. Repeat 10 times.

This stretch should be considered only when the pain in the ankle has significantly subsided. While standing on the edge of a stair, drop your ankles down and hold this stretched position for a count of 10. Repeat 10 times.



Consider this stretch only the pain from an ankle sprain has significantly subsided. Stand 12 inches from a wall with your toes pointing toward the wall. Squat down and hold this position for a count of 10. Repeat 10 times.



Ankle Sprain Strengthening Exercises

Following an ankle sprain, strengthening exercises should be performed once you can bear weight comfortably and your range of motion is near full. There are several types of strengthening

exercises. The easiest to begin with is isometric exercises, which essentially is pushing against a fixed object with your ankle. Once this has been mastered, you can progress to isotonic exercises, which essentially is range of motion of the ankle, but against resistance. Here the isotonic exercises are performed with the use of a resistance band, obtained via your local therapist or at a sporting goods store.

Place your ankle in the "down and in" position against a fixed object such as a couch. Hold this position for a count of 10. Repeat 10 times.

Place your ankle in the "up and out" position against the same object. Hold this position for a count of 10. Repeat 10 times.

Push your ankle down against a fixed object and hold for a count of 10. Repeat 10 times. Push your ankle up against a fixed object and hold for a count of 10. Repeat 10 times.

Using a resistance band around your forefoot, hold the ends of the band with your hand and gently push your ankle down as far as you can and then back to the starting position. Repeat 10 times.

Tie the resistance bands around a fixed object and wrap the ends around your forefoot. Start with your foot pointing down and pull your ankle up as far as you can. Return to the starting position and cycle your ankle 10 times.

Tie the bands around an object to the outer side of your ankle. Start with the foot relaxed and then move your ankle down and in. Return to the relaxed position and repeat 10 times.

Tie the ends of the bands around an object to the inside of your ankle and hold your foot relaxed. Bring your foot up and out and then back to the resting position. Repeat 10 times.

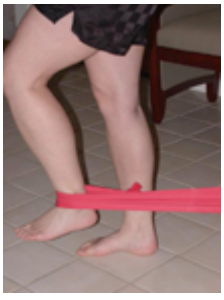
Once you have regained the motion and strength in your ankle, you are ready for sporting activities such as gentle jogging and biking. After you feel your ankle strength is approximately 80% of your other side, then you can begin cutting or twisting sports.

Proprioceptive Exercises:

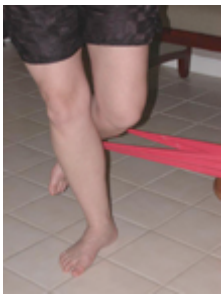
Stand with your affected leg on a pillow. Hold this position for a count of 10. Repeat 10 times

Stand on your affected leg with the resistance band applied to your unaffected leg. Bring your unaffected leg forward and then back to the starting position. Repeat 10 times. Start slowly and progress to a faster speed for a more difficult workout.

Again start slowly and progress your speed at your own pace.



For a more advanced exercise, swing your unaffected leg behind you and then back.



Adapted from AOFAS (www.aofas.org)