

Sprained Ankle & Ankle Instability

A sprained ankle is a very common injury. Approximately 25,000 people experience it each day. A sprained ankle can happen to athletes and non-athletes, children and adults. It can happen when you take part in sports and physical fitness activities. It can also happen when you simply step on an uneven surface, or step down at an angle.

The ligaments of the ankle hold the ankle bones and joint in position. They protect the ankle joint from abnormal movements-especially twisting, turning, and rolling of the foot.

A ligament is an elastic structure. Ligaments usually stretch within their limits, and then go back to their normal positions. When a ligament is forced to stretch beyond its normal range, a sprain occurs. A severe sprain causes actual tearing of the elastic fibers.

How does a sprain happen?

Ankle sprains happen when the foot twists, rolls or turns beyond its normal motions. If there is a severe in-turning or out-turning of the foot relative to the ankle, the forces cause the ligaments to stretch beyond their normal length. If the force is too strong, the ligaments can tear. When excessive force is applied to the ankle's soft tissue structures, you may even hear a "pop". Pain and swelling result.

What are the symptoms?

The symptoms are pain, bruising, swelling around the ankle, difficult in walking and sometimes inability to bear weight on the affected side. Depending on the degree of swelling, pain, bruising and ability to bear weight on the affected foot, the severity of the sprain can be classified as Grades 1,2 and 3.

What does the initial assessment involve?

See your doctor to diagnose a sprained ankle. He or she may order X-rays to make sure you don't have a broken bone in the ankle or foot. A broken bone can have similar symptoms of pain and swelling.

What are the options of treatment?

Nonsurgical Treatment

Walking may be difficult because of the swelling and pain. You may need to use crutches if walking causes pain. Usually swelling and pain will last three to five days. Depending upon the grade of injury, the doctor may tell you to use removable plastic devices such as cast, boots or splints. ***Most ankle sprains need only a period of protection to heal.*** The healing process takes about four weeks to six weeks. The doctor may tell you to incorporate motion early in the healing process to prevent stiffness. Motion may also aid in being able to sense position, location, orientation and movement of the ankle (proprioception).

Remember **R.I.C.E** (rest, ice, compression and elevation):

- **Rest** your ankle by not walking on it.
- **Ice** should be immediately applied. It keeps the swelling down. It can be used for 20 minutes to 30 minutes, three or four times daily. Combine ice with wrapping to decrease swelling, pain and dysfunction.
- **Compression** dressings, bandages or ace-wraps immobilize and support the injured ankle.
- **Elevate** your ankle above your heart level for 48 hours.

When is surgery recommended?

If an ankle sprain is not recognized, and is not treated with the necessary attention and care, chronic problems of pain and instability may result.

Surgical Treatment

Surgery is reserved for injuries that fail to respond to nonsurgical treatment, and for persistent instability after months of rehabilitation and non-surgical treatment.

Surgical options include:

- **Arthroscopy** with/without reconstruction
The surgeon looks inside the joint to see if there are any loose fragments of bone or cartilage, or part of the ligament caught in the joint.
- **Reconstruction**
A surgeon repairs the torn ligament with stitches or suture, or uses other ligaments and/or tendons found in the foot and around the ankle to repair the damaged ligaments.

How can I prevent ankle sprains in the future?

The best way to prevent ankle sprains is to maintain good strength, muscle balance and flexibility.

- Warm-up before doing exercises and vigorous activities
- Pay attention to walking, running or working surfaces
- Wear good shoes
- Pay attention to your body's warning signs to slow down when you feel pain or fatigue

If you have sprained your ankle in the past, you may continue to sprain it if the ligaments did not have time to completely heal. If the sprain happens frequently and pain continues for more than four weeks to six weeks, you may have a chronic ankle sprain. This can also happen if you return to work, sports or other activities without letting the ankle heal and become rehabilitated.

If this happens over and over again, a chronic situation may persist with instability, a sense of the ankle giving way (gross laxity) and chronic pain. Activities that tend to make an already sprained ankle worse include stepping on uneven surfaces, cutting actions and sports that require rolling or twisting of the foot, such as trail running, basketball, tennis, football and soccer.