# West Coast Foot & Ankle

Associates Inc

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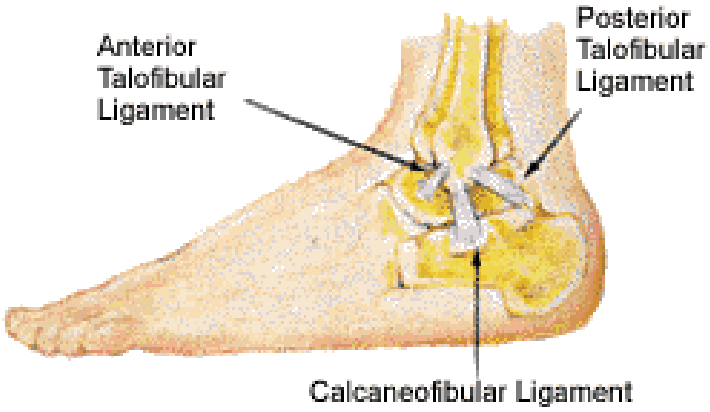
# ANKLE SPRAINS AND TREATMENTS

Ankle sprains are common injuries that occur when ligaments are stretched or torn. The ankle sprain is the most common athletic injury. Nearly 85% of ankle sprains occur laterally, or on the outside of ankle joints. Sprains on the inside ligaments are less common. Many sprains occur when participating in sports, or by twisting the ankle when walking on an uneven surface. Some individuals, due to their bone structure or foot type, are more prone to ankle sprains.

**Anatomy of the Ankle Joint**

The ankle joint is made up of three bones. The bones are called the tibia, fibula, and talus. These bones form a socket in which the ankle joint moves




The tibia, fibula and talus are connected to each other by ligaments. Think of ligaments as thick rubber bands that hold bones together so that joints are stable and function properly. When an ankle is sprained, a ligament is either stretched, partially torn or completely torn. Muscle and tendon structures surround the ligaments. These structures provide motion of the ankle joint for walking and running. Blood vessels, nerves and skin overlie the ligaments and tendons. The ankle joint moves the foot upward and downward. Just below the ankle joint is a ball and socket type joint that allows inward and outward motion.

**Ankle Injury Symptoms**

Ankle sprain symptoms vary depending on severity. Often, the ankle Is tender, swollen and discolored. The ankle can be quite painful to touch. Walking is usually hampered and may become difficult depending on the severity of the sprain. A feeling of instability may occur, especially in severe ankle sprains when ligaments are torn. Ankle sprains are classified by "types" and range from mild to moderate to severe. Classifying ankle sprains helps the podiatric surgeon diagnose the specific structures involved in the injury. This also helps determine appropriate treatment plans for each type of ankle sprain. Type I ankle sprain, the least severe, occurs when ligament fibers have been stretched or slightly torn. Type II sprain occurs when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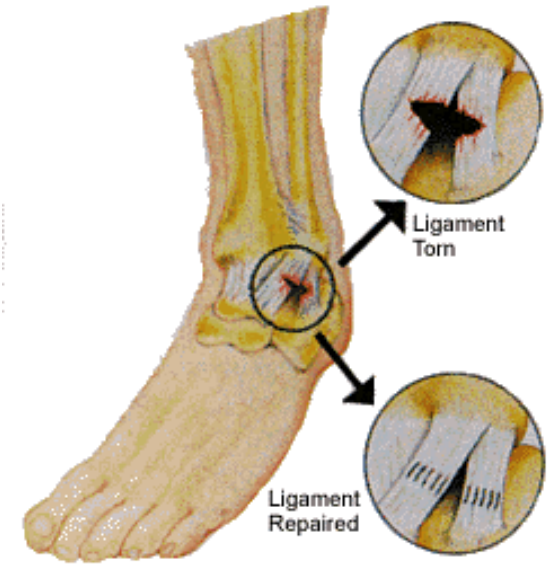
some of these fibers or ligaments are completely torn. Type III, the most severe, occurs when the entire ligament is torn and there is significant instability of the ankle joint. Fractures of the ankle bone or outside the foot bone may be present. Fractures require immediate diagnosis and attention for appropriate treatment.


**Diagnosis**

The podiatric surgeon examines the ankle to identify the type of ankle sprain and determine the appropriate method of treatment. X-rays or specialized X-ray views of the ankle and foot may also be used to reveal any fractures, dislocations or instability of the ankle joint. Less frequently, more sophisticated testing is necessary to examine soft tissue injuries. For example, computerized tomography (CT) and magnetic resonance imaging (MRI) give detailed views of the bone and soft tissue structures around the ankle joint. Once the diagnosis is made, the podiatric surgeon recommends appropriate therapy.

**Treatments**




Initial treatment includes rest, ice, compression and elevation (RICE). The "RICE" method promotes healing, decreases pain, and reduces swelling around the ankle joint. In more severe cases, nonweightbearing activities are encouraged and crutches may be recommended. Compression may be achieved with an elastic bandage, splint, short leg cast or brace, depending on severity. Compression eliminates motion around the ankle joint. The ability to walk or participate in other weightbearing activities during the healing process depends on the severity or type of ankle sprain. This is determined by the podiatric surgeon once the diagnosis is made. Most ankle sprains heal in three to eight weeks. In more severe cases, ligaments may require more healing time to promote ankle stability. Repeated ankle sprains may

cause chronic instability, interfering with walking or sports activities. In this case, the podiatric surgeon may recommend a surgical procedure to tighten or create new ligaments around the ankle joint to re-establish stability of the ankle joint.

Conservative treatment of many foot and ankle problems often promotes pain relief. For example, ankle strengthening exercises following the injury help prevent recurrence of injury. Most of these exercises can be done at home after appropriate instruction. Ankle supports and braces or taping around the ankle joint is especially helpful for individuals participating in sports. Your podiatric surgeon may recommend preventive bracing to help prevent future injury.

**Summary**

The adage "it is better to break an ankle than sprain one" need not apply if the injury is appropriately diagnosed and treated by the podiatric surgeon. Properly treated, the rehabilitated ankle can tolerate normal activities and the stress of participating in sports. The podiatric surgeon is a foot and ankle specialist who diagnoses foot and ankle conditions and determines appropriate treatment.

*While these are some of the most commonly prescribed treatments for ankle sprains,others may be used. The podiatric surgeon will determine which treatment is likely to be the most successful in each case.*