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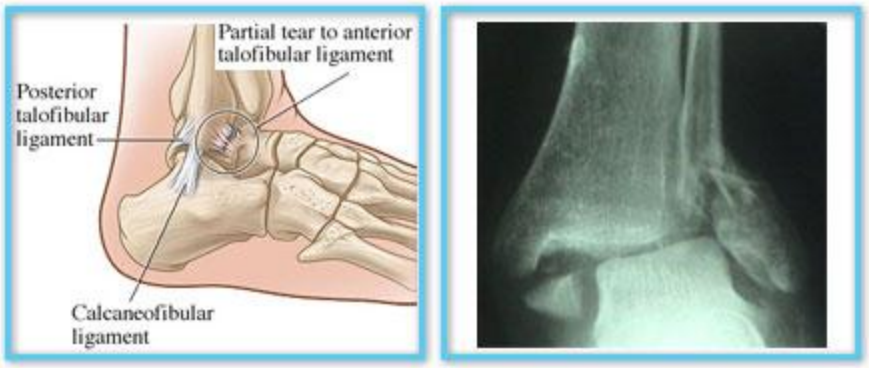
Physician & Surgeon of the Foot & Ankle

Ankle Sprains & Fractures



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.

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. When an ankle is sprained, a ligament is either stretched, partially torn or completely torn.

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 physician 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 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 after any type of ankle sprain. Fractures require immediate diagnosis and attention for appropriate treatment. Therefore, x-rays are required to evaluate all sprains. Occasionally, 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.

Treatment for Ankle Sprains
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 your doctor 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 physician 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.

Treatment for Ankle Fractures
If the fracture is stable (without damage to the ligament or the ankle joint), it can be treated with a leg cast or brace. Initially, a long leg cast may be applied, which can later be replaced by a short walking cast. It takes at least six weeks for a broken ankle to heal, and it may be several months before you can return to sports at your previous competitive level. Your physician will probably schedule additional X-rays while the bones heal, to make sure that changes or pressures on the ankle don't cause the bones to shift.

If the ligaments are also torn, or if the fracture created a loose fragment of bone that could irritate the joint, surgery may be required to "fix" the bones together so they will heal properly. The surgeon may use a plate, screws, staples or tension bands to hold the bones in place. Usually, there are few complications, although there is a higher risk among diabetic patients Afterwards, the surgeon will prescribe a program of rehabilitation and strengthening. Range of motion exercises are important, but keeping weight off the ankle is just as important.

At **Capital Foot & Ankle Centers**, we have doctors who specialize in sports-related injuries of the foot and ankle.