

# Ankle Sprains

The bones of the ankle joint are stabilized by ligaments. There are three outside ligaments that connect the talus to the fibula and calcaneus. The inside ligament is called the deltoid ligament. There are also ligaments that connect the fibula and tibia above the ankle called syndesmotic ligaments. Ankle sprains are injuries to these ligaments. The great majority of sprains involve the outside ligaments and occur when the ankle inverts or rolls in. These can occur during sports such as basketball but can also occur when walking/hiking etc. Medial ankle sprains occur when the foot turns out injuring the inside ligaments but are not as common as lateral ankle sprains. A high ankle sprain, or a syndesmotic sprain, occurs when the foot is planted and there is a twisting motion of the leg. These are common in sports such as football but also occur during injuries in the workplace.

There are three grades of ankle sprains (1-3) that describe a progression from a stretch injury to complete disruption of the ligaments.

Treatment of ankle sprains typically involves RICE (rest, ice, compression and elevation). Lower grade sprains are managed with an ankle brace/Aircast while higher grade sprains are managed in a walking or CAM boot. The CAM walker allows the patient to weight bear while stabilizing the ankle and allowing the ligaments to heal. Patients are allowed to weight bear as tolerated with assist of crutches as required. Some patients do require physical therapy if they have stiffness/weakness of the ankle.

The great majority of ankle sprains can be managed without surgery. Studies have shown that even with complete disruption/tearing of the ligaments, patients do better with non-operative treatment rather than surgery to repair the ligaments. There are some exceptions when surgery is required in patients who have an ankle sprain associated with a bone chip or osteochondral defect. These patients require an ankle arthroscopy to remove/repair the bone fragment. At times, injuries to the ligaments above the ankle (syndesmotic ligaments) can be associated with a shift in the bones of the ankle which can require surgery. Some patients may have continued or chronic symptoms several months after an ankle sprain and may require surgery to tighten the lateral ligaments if they are loose (Brostrom procedure). Other patients have continued inflammation/scarring after a sprain and may require an ankle arthroscopy and debridement.

**To make an appointment with Dr. Zell, please call 443-643-3130.**