

Ankle Injuries Plague Some Athletes

By: Dr. Stephen O'Neil

The foot and ankle must provide support and shock absorption while at the same time balancing the body. This requires both mobility to adapt to varying terrain, and stability to allow supported contact and push off from the ground. Shock absorption occurs through the dissipation of forces through the complex set of bones, ligaments and tendons that make up the ankle and foot. The stability of the ankle is dependant on both foot function and muscular support in the lower leg and foot joints. History of previous injury, repetitive strain, muscular imbalances and genetic makeup can also predispose one to have instability at the ankle joint.

Ankle sprains are very common. Ankle sprains are even more common among athletes. It is the most commonly sprained joint in many sports. An athlete's recovery is greatly dependant on the severity of the sprain, the type of sprain and treatment after the sprain. The most common type of sprain is an inversion sprain which is commonly known as "rolling the ankle". This type of sprain is when the bottom of the foot faces inward as the ankle rolls outward. In doing so, the ligaments on the lateral side or outside of the foot and ankle may be damaged. Lateral swelling, redness, bruising and pain are the most common symptoms. A second type of sprain is known as an eversion sprain. The mechanism is the opposite of an inversion sprain. The ankle rolls in forcing the bottom of the foot outward. This causes injury to the medial ligaments or inside of the foot. A third and less common type of sprain happens when the ankle is forced into hyper-flexion. This is most common when the weight is on the foot and the foot is planted. The straight leg is forced forward but the foot remains planted causing damage to the posterior portion of the ankle. This may include damage to the Achilles tendon.

Initial treatment of an ankle sprain, regardless of which type should be R.I.C.E. Rest, Ice, Compression, and Elevation are most important in the first 48 hours and the sooner treatment is initiated, the better. Treatment beyond this stage is dependant on findings from the initial evaluation. This should be focused on ruling out any secondary injuries that may be more severe or significant. Evaluation should focus on ruling out fractures of any kind. Severe point tenderness, bruising or an inability to stand weight bearing indicate a need for x-rays. Stability of the ankle joints should be used to rule out any ligament tears that would then leave the joint unstable. Muscular tears in the lower leg will not generally cause gross instability but will be evident on muscle testing and will show as a severe decrease in strength.

If there are no major associated injuries the sprained ankle should then be treated conservatively with ice, ultrasound mobilization/ adjustment of subluxated joints and rest. The bones that make up the ankle joint can become misaligned when an ankle is sprained and unless they are re-aligned they will make the ankle more prone to recurrent sprains. Chiropractic evaluation and manipulation can greatly reduce the chance of the ankle injury becoming chronic. After the acute phase of healing is complete a specific strengthening program should begin. There are many treatment protocols depending again on each specific situation.

If running and return to sport is required prior to full recovery and complete strengthening, a brace may be required for support. Custom fit orthotics will also help support normal biomechanics of the foot and ankle, promoting stability in the injured ankle. It is important for any sprained ankle to be properly evaluated to ensure full and complete recovery.