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**ATHLETIC ANKLE INJURIES
JULIE GRUNDBERG, DPM**

Ankle injuries are the most common injuries encountered in a sports medicine practice. Basketball has the highest rate of ankle injuries because of the running, jumping and lateral movements involved. Football, volleyball, soccer, cross-country running, and ballet dancers also have a high incidence of ankle injuries. Approximately 7-10% of all emergency room visits each year is the result of ankle injuries.

Eighty-five percent of ankle injuries are sprains. Most of these sprains are successfully treated conservatively with RICE (rest, ice, compression and elevation). Depending on the severity of the injury, immobilization may be needed. Only a small percentage of patients require surgical reconstruction of the lateral ankle ligaments. A thorough examination of the ankle is essential to accurately diagnose ligamentous injury. If the patient is unable to weight-bear on the extremity and severe swelling and bruising has occurred, x-ray examination is needed to rule out a fracture or cartilage injury to the ankle joint.

Inversion ankle sprains occur when the leg is perpendicular to the front and the foot is forced toward the midline of the body. The lateral (outside) ankle consists of three ligaments working together to prevent inversion strain. The most commonly injured ligament is the ATFL (anterior talofibular ligament). It originates at the tip of the fibula and course to the dorsal (top) midfoot. The CFL (calcaneofibular ligament) is injured when a higher degree of inversion stress is applied to the ankle. The PTFL (posterior talofibular ligament) is the strongest ligament and is rarely injured.

The most common grading system for ligamentous injuries is the three-grade system. Grade I involves stretching a ligament without tearing or instability. Grade II is a partial tear with mild to moderate instability. Grade III is complete rupture with marked instability.

The concern of a “chronic sprainer” is the development of the ankle instability. This syndrome causes the ankle to continually give way. This can occur if the ligaments do not heal properly and the peroneal tendons weaken, causing a proprioceptive defect. A proprioceptive defect occurs when damage to the nerves within the ligaments causes an unstable feeling ankle, leading to decreased ankle control and further sprains. Commonly,

physical therapy rehabilitation includes strengthening exercises and ankle proprioceptive training.

In the midst of all sport season – basketball, track, baseball and softball, ankle injuries can ruin a fun and successful season. I recommend if a player has had ankle sprains in the past, additional support for the ankle can be a preventative step from injuries. The athletic trainers can tape the ankle prior to practices and games. Also, supportive ankle braces should be worn during practice, conditioning and games, and a high-top athletic shoe is the final key for an injury-free season.

Dr. Grundberg is a Podiatrist at Des Moines Orthopaedic Surgeons, P.C. Dr. Grundberg specializes in foot and ankle care and surgery, including sports injuries. She is available to see patients at DMOS - East; offering satellite clinic services at Iowa Health Physicians - Southglen Clinic on Des Moines south side and DMOS - West. To reach Dr. Grundberg or to schedule an appointment please calls (515)263-9696.