Sports-Related Foot and Ankle Injuries on the Rise

*Athletes who return to their sport before they are completely healed may suffer long-term consequences*

ROSEMONT, Ill., Sept. 1 /PRNewswire-USNewswire/ -- Sports-related injuries are part of the game, and as athletes are becoming stronger, faster, and better conditioned, higher-energy injuries are becoming common. Foot and ankle injuries are especially concerning because they are increasing in number and severity and are often misunderstood.

- According to the U.S. Consumer Product Safety Commission, football-related toe, foot and ankle injuries, have been rising since 2003. In that year, there were approximately 49,000 toe, foot and ankle injuries related to football, compared to 2007, which included 62,000 injuries.

"Foot and ankle injuries are frequently designated as a 'sprain,' which often minimizes the severity of the injury to the athlete, parent, coaches, and fans. A healthy foot is obviously necessary for running and push-off, and the biomechanics of this part of the body are quite intricate. These seemingly simple sprains can be devastating to the running athlete, often requiring an extended period of time to recover," said orthopaedic surgeon Robert B. Anderson, MD, whose review appears in the September issue of the *Journal of the American Academy of Orthopaedic Surgeons*.

Foot and ankle injuries may occur at the level of the bone, joint, ligament, or tendon. Each type of injury has its own long-term consequences if the diagnosis is delayed, treatment is inadequate, or return to athletics is too rapid.

"Bone and joint injuries may result in chronic deformity and/or arthritis, with stiffness and pain. Neglected tendon injuries result in loss of strength and function, while ligament injuries may progress to instability and arthritis. All of these conditions obviously affect the biomechanics of the foot and ankle and limit the ability of the athlete to perform," he added.

The three most common foot and ankle injuries include:

- **Ankle sprains**,
- **Achilles rupture**, and
- **Plantar fasciitis** (heel spur).

"There is no way to prevent ankle sprains, except for wearing a rigid brace, which would limit function. However, for those at risk for a sprain, or who have had one previously, taping the ankle or wearing a semi-rigid brace (which is less restrictive) should be considered. Those 'at-risk' individuals should also consistently work on strengthening exercises of the tendons around the ankle," he said.

Athletes can lessen their risk of Achilles rupture by stretching the Achilles tendon prior to activity. Athletes, along with the general population, are bothered by the ever-common, plantar fasciitis. This may be prevented and treated with regular plantar fascial and heel cord stretching, as well as strengthening the intrinsic muscles of the foot.
When it comes to the potential for foot and ankle injuries, shoes play an important role. Athletes need to understand their foot type and the type of shoes they need for their particular sport and surface. Orthotic devices can be helpful for certain foot problems, particularly feet with high arches.

"Other foot and ankle injuries of significance include turf toe, which may occur more commonly in those who wear flexible shoes and/or on artificial field surfaces; and the Lisfranc joint injury of the midfoot, which may also occur when wearing shoes with less midfoot support," Dr. Anderson added.

A major concern right now is artificial field surfaces and how they may factor into lower extremity injuries. Certain molded-bottom shoes perhaps lessen injury on these surfaces, and yet the player may have reduced traction and performance because of it. It is a fight between performance and risk of injury, and players often take the side of performance," he explained.

If an athlete experiences a foot or ankle injury, he or she should see an orthopaedic surgeon to determine the best course of treatment. "An orthopaedic surgeon is a medical doctor who is trained in the entire musculoskeletal system, and a number of sports-related injuries involve biomechanical issues that extend well past the foot. For instance, a high ankle sprain may simultaneously cause an injury to ligaments of the knee, and a number of ankle fractures affect the knee as well. Therefore, an orthopaedic surgeon, with this wider scope of practice, is typically asked to be involved with athletic injuries," he explained.

To find an orthopaedic surgeon, specializing in the foot and ankle, please visit the American Orthopaedic Foot and Ankle Society (AOFAS), at www.aofas.org or to find an orthopaedic surgeon who specializes in sports medicine, please visit the American Orthopaedic Society of Sports Medicine (AOSSM), at www.sportsmed.org

Disclosure: Dr. Anderson or an immediate family member serves as a board member, owner, officer, or committee member of American Orthopaedic Foot and Ankle Society; has received royalties from DJ Orthopaedics, Wright Medical Technology, and Arthrex; serves as a paid consultant to or is an employee of Wright Medical Technology; and has received research or institutional support from Wright Medical Technology. Dr. Hunt or an immediate family member is a member of a speakers' bureau or has made paid presentations on behalf of Smith & Nephew. Dr. McCormick or an immediate family member is a member of a speakers' bureau or has made paid presentations on behalf of Smith & Nephew and has received research or institutional support from Midwest Stone Institute and Wright Medical Technology.

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