



## Medical News Today



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### **Ankle Sprains Show Link to Development of Osteoarthritis**

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Ankle sprains may predispose a patient to osteoarthritis according to a study presented at the American Orthopaedic Foot and Ankle Society's Annual Winter Meeting in Washington, DC, today.

The study was conducted by Victor Valderrabano, MD, and Beat Hintermann, MD, of Orthopaedic Department of the University of Basel Switzerland. The purpose of their study was to quantify the type of ligament injury that will develop into post-traumatic ankle arthritis.

Osteoarthritis is the degeneration of a joint. Approximately 50 million adults in the United States and 15% of the world's adult population suffer disability resulting from osteoarthritis. Ankle ligament lesions, or sprains, are the most common injuries in sports and recreational activities. They account for about 25% of the injuries that occur in running and jumping sports.

Such a disease causes inflammation, cartilage damage, formation of cysts, decrease in range of motion, and muscle imbalances in the effected joint. Despite the conservative treatments and physical rehabilitation management of acute ankle sprains, 20-40% of patients with these injuries experience chronic ankle instability. Of those patients with ankle instability, 70-80% develop posttraumatic ankle arthritis

Patients with osteoarthritis suffer from severe pain and eventually have difficulty performing daily activities. Initially, patients only feel pain while walking or exercising, but eventually the pain affects them at night. With the advancement of the disease, patients develop a noticeable limp and painful joint stiffness and an inability to work.

Dr.'s Valderrabano and Hintermann studied 268 patients, 47 of whom suffered from chronic ankle instability with recurrent sprains. "The results of the study were surprising," Dr. Valderrabano said. The study showed that 18% of the patients were suffering from arthritis either caused by chronic ankle instability as a result of an ankle sprain. "Another surprise was that the time between the ankle sprain and the development of arthritis was quite long, an average of 21 years," he said. Patients injured themselves most frequently while playing sports.

This study shows the importance of the recognition of post-traumatic ankle arthritis after chronic ankle instability or ankle sprain. A medical doctor treating ankle sprains should be aware of this link and perform an intensive rehabilitation program, with a thorough follow-up a few years after the initial treatment. If doctors are able to catch the instable ankle at an early stage, the likelihood of later development of osteoarthritis will decrease.

Dedicated to advancing research and educational objectives in orthopaedic foot and ankle medicine, the American Orthopaedic Foot and Ankle Society is the leading medical organization for orthopaedic foot care specialists...AOFAS members are the MDs who specialize in the foot and ankle.

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