

OSTEOARTHRITIS OF THE FOOT AND ANKLE



American College of
Foot and Ankle Surgeons

What Is Osteoarthritis?

Osteoarthritis is a condition characterized by the breakdown and eventual loss of cartilage in one or more joints. Cartilage—the connective tissue found at the end of the bones in the joints—protects and cushions the bones during movement. When cartilage deteriorates or is lost, symptoms develop that can restrict one's ability to easily perform daily activities.

Osteoarthritis is also known as degenerative arthritis, reflecting its nature to develop as part of the aging process. As the most common form of arthritis, osteoarthritis affects millions of Americans. Many people refer to osteoarthritis simply as arthritis, even though there are more than 100 different types of arthritis.

Osteoarthritis appears at various joints throughout the body, including the hands, feet, spine, hips, and knees. In the foot, the disease most frequently occurs in the big toe, although it is also often found in the midfoot and ankle.

Signs and Symptoms

People with osteoarthritis in the foot or ankle experience, in varying degrees, one or more of the following:

- Pain and stiffness in the joint
- Swelling in or near the joint
- Difficulty walking or bending the joint

Some patients with osteoarthritis also develop a bone spur (a bony

protrusion) at the affected joint. Shoe pressure may cause pain at the site of a bone spur, and in some cases blisters or calluses may form over its surface. Bone spurs can also limit the movement of the joint.

Causes

Osteoarthritis is considered a “wear and tear” disease because the cartilage in the joint wears down with repeated stress and use over time. As the cartilage deteriorates and gets thinner, the bones lose their protective covering and eventually may rub together, causing pain and inflammation of the joint.

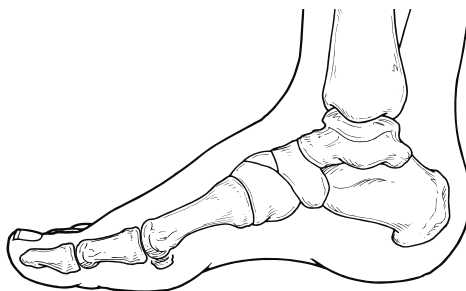
An injury may also lead to osteoarthritis, although it may take months or years after the injury for the condition to develop. For example, osteoarthritis in the big toe is often caused by kicking or jamming the toe, or by dropping something on the toe. Osteoarthritis in the midfoot is often caused by dropping something on it, or by a sprain or fracture. In the

ankle, osteoarthritis is usually caused by a fracture and occasionally by a severe sprain.

Sometimes osteoarthritis develops as a result of abnormal foot mechanics. People who have flat feet or high arches are at increased risk for developing osteoarthritis in the foot. A flat foot causes less stability in the ligaments (bands of tissue that connect bones), resulting in excessive strain on the joints, which can cause arthritis. A high arch is rigid and lacks mobility, causing a jamming of joints that creates an increased risk of arthritis.

Diagnosis

In diagnosing osteoarthritis, the foot and ankle surgeon will examine the foot thoroughly, looking for swelling in the joint, limited mobility, and pain with movement. In some cases, deformity and/or enlargement (spur) of the joint may be noted.



In addition to the foot examination, x-rays may be ordered to help the doctor diagnose osteoarthritis and evaluate the extent of the disease in the foot and ankle.

Treatment: **Non-surgical Options**

To help relieve symptoms, the surgeon may begin treating osteoarthritis with one or more of the following non-surgical approaches:

- **Oral medications.** Nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen, are often helpful in reducing the inflammation and pain. Occasionally a prescription for a steroid medication is needed to adequately reduce symptoms.

In addition, certain nutritional supplements may provide some longer-term benefit.

- **Orthotic devices.** Custom orthotic devices (shoe inserts) are often prescribed to provide support to improve the foot's mechanics or cushioning to help minimize pain.
- **Bracing.** Bracing, which restricts motion and supports the joint, can reduce pain during walking and help prevent further deformity.
- **Immobilization.** Protecting the foot from movement by wearing a cast or removable cast-boot may be necessary to allow the inflammation to resolve.
- **Steroid injections.** In some cases, steroid injections are applied

to the affected joint to deliver anti-inflammatory medication.

- **Physical therapy.** Exercises to strengthen the muscles, especially when the osteoarthritis occurs in the ankle, may give the patient greater stability and help avoid injury that might worsen the condition.

When Is Surgery Needed?

If non-surgical treatment fails to adequately reduce the pain associated with osteoarthritis, surgery may be recommended. The goal of surgery is to decrease pain and improve function. The foot and ankle surgeon will consider a number of factors when selecting the procedure best suited to the patient's condition and lifestyle. ▲



Melissa J. Lockwood, D.P.M.

Melissa J. Lockwood, D.P.M. – As founder of Heartland Foot and Ankle Associates, P.C., Dr. Melissa J. Lockwood happily returns to central Illinois after seven years in Cleveland, Ohio. She is a graduate of Providence Catholic High School in New Lenox, Illinois. Dr. Lockwood completed her undergraduate degree from the University of Illinois (Urbana/Champaign) in 2001 with a Bachelor of Science in Biology and a minor degree in Chemistry. Dr. Lockwood has a great interest in archaeology and also received a minor degree in Anthropology from the U of I in 2001.

Dr. Lockwood went on to the Ohio College of Podiatric Medicine and matriculated with her Podiatric Medical Degree in 2005. While at OCPM, Dr. Lockwood served as both a delegate to the student branch of the APMA as well as President of the Student Government organization (OPMSA). Dr. Lockwood was the recipient of several awards while attending OCPM, including the Ohio Podiatric Medical Association Dr. James Conforti Community Relations Award and the OCPM Mildred Kaufman Memorial Award for Proficiency in Orthopedics and Biomechanics.

Dr. Lockwood arrives in Bloomington following a three year residency in Cleveland, Ohio. Dr. Lockwood completed a 36 month Podiatric Medical and Surgical Residency Program based out of the University Hospital System/Richmond Heights Medical Center. Dr. Lockwood has extensive training in both forefoot (bunions, hammertoes, neuromas) elective surgical procedures as well as rearfoot reconstruction. She has a special interest in the treatment of chronic wounds as well as diabetic palliative care. Dr. Lockwood enjoys working with patients one on one in a clinical setting and chatting about her favorite sports teams!

Dr. Lockwood and her husband Scott are pleased to be back in their home state and rooting on the Illini, Redbirds, Chicago Bears, and White Sox! Scott is a 2000 Illinois State University Alumni with a BS degree in Accountancy. He is a CPA working in Bloomington.

EDUCATION

University of Illinois, Urbana-Champaign, BS Biology (01)
Professional: Ohio College of Podiatric Medicine, (05)
Residency: University Hospital Richmond Medical Center (05-June 08)

PROFESSIONAL ACCREDITATION

NBPME Part I (03) NBPME Boards Part II & Part III - PM Lexus (05)
State of Illinois Licensure (08)

HONORS AND AWARDS

Illinois State Scholar (1997)
OCPM Academic Scholarship (01) OCPM Dean's List (04)
OPMA Dr. James Conforti Community Relations Award (05)
OCPM Mildred Kaufman Memorial Award for Proficiency in Orthopedics and Biomechanics (05)
University Hospitals Richmond Medical Center Outstanding Podiatric Resident (08)

PROFESSIONAL ORGANIZATIONS

President, Ohio Podiatric Medical Student's Association (02-04)
Delegate, American Podiatric Medical Student's Association (02-04)
Chairman, President's Committee, American Podiatric Medical Student's Association Feb. 2004
Member - OCPM Board of Trustees (02-04)
APMA/IPMA, AAPP, AAAP member at large

RESEARCH/PUBLICATIONS

Sesamoid Pathology, coauthored with
Dr. Joseph Favazzo, D.P.M., December 2005. Compilation of forefoot pathology edited by Vincent J. Hetherington, D.P.M.



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American College of Foot and Ankle Surgeons

This information has been prepared by the Consumer Education Committee of the American College of Foot and Ankle Surgeons, a professional society of 5,800 foot and ankle surgeons. Members of the College are Doctors of Podiatric Medicine who have received additional training through surgical residency programs.

The mission of the College is to promote superior care of foot and ankle surgical patients through education, research and the promotion of the highest professional standards.

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