Arthritis of the Foot and Ankle

John Sigle, DPM
Foot & Ankle Center Of Illinois

Pain caused by arthritis of the foot and ankle is one of the most common complaints that I get from patients in my office. Most patients live with it for years before seeking treatment by a physician. That is unfortunate because early detection and treatment can help to slow its progression. If you are suffering from this condition, you are not alone. In fact, over forty million Americans suffer from some form of arthritis. I hope this article will help you understand what arthritis is and how it can be treated.

What is Arthritis?

Arthritis is a condition that affects and causes pain in joints of the human body. Arthritis causes inflammation of the joint lining and loss of the cartilage covering on the bone. Cartilage functions to cushion and protect bone during movements. Loss of this protective covering can cause bone-on-bone contact, limited motion and pain. It can affect any one joint or multiple joints at the same time. Arthritis can present itself at any age. There are over one hundred different disorders that can manifest in painful arthritis. The most common type is osteoarthritis.

Osteoarthritis, also known as degenerative arthritis, is a “wear and tear” form of arthritis. It usually presents in patients over the age of 45 and often is a part of the aging process. When cartilage loss is significant, its symptoms can be painful enough to prevent one from performing even routine daily activities. In some cases it can be crippling. The foot and ankle can be particularly vulnerable to this type of arthritis. There are thirty-three joints in each foot and ankle that can be afflicted. What a complex structure it is! This x-ray is an example of great toe joint osteoarthritis.
What causes Osteoarthritis?

- One common cause of this type of arthritis is overuse and repetitive stress in the affected joint. Athletes and industrial workers are commonly overusing and stressing the joints of the foot and ankle.
- Weight is a big factor. The United States, in particular, has a large population of overweight people. What most people don’t realize is that each step we take, with gravity figured in, our foot joints take on four times our body weight! Naturally, our feet will break down with time and added weight. The ligament structures surrounding the joints eventually fail and give way to gravity. This causes the joint alignment to change and cartilage breakdown ensues. So, being overweight is another significant cause of this disease.
- Other factors that can cause joints to become arthritic are abnormal foot structures such as flat feet or excessively high arches. Flat feet tend to have unstable or hyper mobile joints that lead to erosion of the cartilage. High arches often are rigid and do not have enough motion and result in constant jamming of the joints. Both can be very painful.
- Injuries can also lead to arthritic joints, especially if they are ignored. Fractures that enter joints often leave incongruent cartilage that will lead to joint breakdown. Sprains or ligament tears can also leave joints unstable and cause gradual erosion of the cartilage.

This x-ray is an example of ankle joint arthritis.

What does Arthritis feel like?

There are a few similar complaints that I hear from patients with arthritic feet. Probably the most common are stiffness, pain, swelling, and difficulty walking.
- As the cartilage erodes, the joint surface changes by forming bone spurs surrounding the joint. Spurs are overgrowths of bone at the edges of the joint. They widen and flatten the joint and cause stiffness. They collide when we walk or move
the joint and this bone-on-bone contact results in pain. Joint lining, or synovium, becomes impinged and it swells (synovitis). This can cause the skin to have a reddish appearance and feel hot to the touch. This domino effect makes it hard to walk.

-Bone spurs become very apparent in the foot and ankle as there is very little soft tissue between the bones and your shoe gear. These bony prominences become very irritated by contact with shoes throughout the day. The skin reacts by forming calluses or sometimes blisters.

-Most people are particularly stiff in the morning, often complaining that it takes several steps to get going and walk normally. Also, after resting, the same symptoms occur.

-Pain at night time while sleeping is also very common. It feels dull or throbbing. It can be severe enough to wake you out of sleep.

This x-ray is an example of arthritis of the midfoot with bone spurs.

**How is Arthritis diagnosed?**

Diagnosis of arthritis is usually made with a thorough exam. It is detected by limited motion in joints associated with pain on movement. Often, the examiner can feel grinding in the joint itself, bone spurs, and/or swelling.

-X-rays often show significant changes to the joint and surrounding bones.

-Early diagnosis is important to effective treatment. Cartilage loss is not reversible, so ignoring your symptoms may be very detrimental to your feet!

This picture is an example of Rheumatoid Arthritis.

**How is Arthritis treated in the foot and ankle?**

The goal of treatment of arthritic foot and ankle conditions is primarily to preserve the function of the foot and to relieve pain. This is done non-surgically in the majority of cases with a combination of treatments.

-Historically, aspirin was the first line of treatment for arthritic conditions. Today, the first line of therapy usually starts with a prescription for a non-steroidal anti-inflammatory (NSAIDS) medication such as Ibuprofen. At times, a prescription for a steroid is necessary.
- One of the first things to examine is the shoes that are worn on a daily basis. Wearing supportive shoes can make a difference. Poor shoe choices may actually lead to foot arthritis.

- Augmenting the proper shoes with a custom orthotic device are an excellent approach to use. An orthotic is a custom arch support that fits into most shoes. An orthotic supports the arthritic joints, promotes proper biomechanics, and improves foot function.

- Severe cases sometimes respond well to custom bracing devices. Bracing devices can actually grab the foot and prevent the deforming forces that are causing joint failure.

- One factor that seems to always be present is muscle and tendon imbalance. Simple stretching exercises can make a big difference. Staying active is also important.

- When inflammation is bad enough, immobilization in a walking boot is needed.

- Physical therapy tends to be helpful in patients who do not respond to the previously mentioned treatments.

- Injection of steroids into the joint can provide substantial relief of pain. Steroids can help to relieve the pain enough to start an aggressive physical therapy program.

**Surgical Intervention**

Surgical treatment is sometimes needed in the most severe cases of arthritis. It is the last line of treatment and used when patients do not respond to conservative care. Considering that the foot and ankle have twenty-eight bones and thirty-three joints, it can get pretty complex. The goal of surgical care is really the same as non-surgical care; to improve or preserve foot function and to relieve pain. There are a myriad of surgical procedures used in the foot and ankle. They may be simple, like removing the bone spurs, or complex, like joint replacement or joint fusion. Tendon balancing procedures usually are done in conjunction with bone work. No two cases are alike. There are multiple factors to consider and treatments must be tailored to the patient’s individual needs and expectations.

Arthritis is a painful condition that will likely affect all of us at some point in our lives. Early diagnosis and treatment can improve the outcome. So, if your feet hurt, or you have had an injury that does not get better quickly, make an appointment to see a qualified foot and ankle specialist.