Orthopedics: Foot and Ankle Treatment Options

Foot and ankle problems are the most common reasons that patients see both Orthopedists and Podiatrists. Bunions, plantar fasciitis and ankle sprains may seem mundane, but anyone who has suffered from the pain caused by these conditions understands the extreme impact they can have on one's quality of life. Healthy Living recently assembled three Eisenhower Medical Center experts to address the difficulties caused by ankle and foot problems and the significant progress that has been made in treating them. The participants were Michael Seiberg, DPM, Board Certified Podiatrist, and Mark Albert, PT, ATC, SCS, licensed Physical Therapist and certified Athletic Trainer. David Friscia, MD, Board Certified Orthopedic Surgeon, moderated the session.

DR. FRISCIA: Foot and ankle problems are two of the most common reasons people visit an orthopedic surgeon's or podiatrist's office. The foot has a very complex anatomy with 28 bones and multiple small joints. The foot also has many nerves, which makes injuries and disorders, such as bunions, plantar fasciitis and ankle sprains, especially painful. But we have made tremendous advances in treatments for such problems. Michael, what kind of patients do you see who have heel pain?

DR. SEIBERG: We see patients of all ages — often people who have started a new activity or who have been doing something they are not accustomed to, like standing on hard surfaces or walking barefoot on tile floors. A patient will commonly complain of pain upon first getting up in the morning. This pain is generally due to the tissue on the bottom of the foot, the plantar fascia, not being stretched properly.When a person is inactive and takes a first step in the morning or steps out of the car, this inflamed, tight connective tissue can cause pain.

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DR. FRISCIA: What is the best treatment for heel pain?

DR. SEIBERG: Most people respond well to conservative treatment, which may include oral anti-inflammatories, splints worn overnight, cortisone injections or orthotics (shoe inserts), and physical therapy. "The whole goal is to have people work through the problem and continue to do what they want to do." —Michael Seiberg, DPM

DR. FRISCIA: Mark, how is stretching the plantar fascia and the Achilles helpful for heel pain?

MARK: Inflexibility in the foot may be the source of the pain, so we show patients several stretches that are easy to perform at home and do not require special equipment. In addition, we may use tape on the plantar fascia to support the arch in its natural position and minimize the strain. Ice, ultrasound and massage also are very beneficial in various combinations with stretching.

DR. FRISCIA: Well-padded shoes with rubber soles can be helpful to help cushion the foot as well as orthotics.

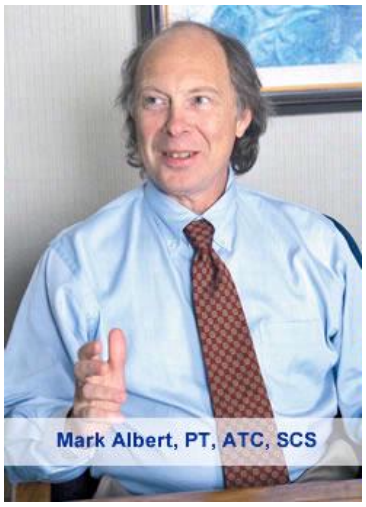
DR. SEIBERG: In the old days, we used to make a plaster mold of the foot to create orthotics. Now, we take a computer image of the arched structure of the foot and get very accurate pictures, allowing us to create an insert for the shoe to better correct the foot deformity and reduce the pain.

MARK: We will soon be able to quantify and measure a person's weight-bearing pattern and the position of the joint between the foot and the ankle. Then we'll use an orthotic intervention to determine their best foot position. It will be very individualized and customized.

DR. FRISCIA: We also commonly see bunions and hammer toes. "…it is important for patients to heal, have physical therapy and be able to resume their usual activities and sports without pain." — David Friscia, MD

DR. SEIBERG: There is a misconception that poor-fitting shoes cause bunions and hammer toes. In fact, these conditions are primarily hereditary. Shoes can aggravate a pre-existing problem, but they do not cause them. Of course, we encourage comfortable shoes, particularly for women. It is better to have a chunky heel than a spiky one, and the shoe should be wide, rather than forcing the foot into a narrow shoe.

DR. FRISCIA: The main reason for surgery for a hammer toe or for bunions is pain relief. Cosmetic foot surgery is discouraged. If you currently do not have pain in your feet, you do not want to have a procedure that might potentially cause a problem in the future. If someone has a severe bunion with an extreme deformity, we occasionally do extensive surgery, but generally, outpatient surgery can be performed to correct the deformity and relieve the pain.



MARK: Physical therapists usually see a patient two weeks after surgery to work on foot strengthening and extension of the big toe to help regain motion, reduce stiffness and normalize the person's gait.

DR. FRISCIA: Achilles tendonitis is another common problem. The Achilles tendon is the largest tendon in the body and withstands quite a bit of force. When we are younger, the tendon is stronger and more pliable, but as we age it becomes stiffer and more prone to injury.

DR. SEIBERG: Patients with Achilles tendonitis often describe a pain in the back of the heel, and it hurts when they take a step down.We advise patients not to have a cortisone injection in the back of the heel by the Achilles tendon.

DR. FRISCIA: Cortisone weakens the tendon. The tendon is already inflamed and weakened and may already have a partial tear. Achilles tendonitis is usually treatable with anti-inflammatories and physical therapy.

MARK: Patients can benefit from a simple heel lift to protect and strengthen the Achilles tendon as well as the muscles connected to it. Transverse friction massage is also a technique that has good success. The therapist strums the tendon with his fingers to produce a blood flow effect.

DR. SEIBERG: Prescription antiinflammatory creams also help a number of patients. They are safe and will not damage the tendon because they are non-steroidal.

DR. FRISCIA: Another challenging area is the posterior tibial tendon, the second largest tendon in the foot and ankle that runs along the inside of the foot and helps support the arch.

MARK: Yes, the posterior tibialis is a tendon that resists a flattening of the arch.

DR. FRISCIA: As people age, this tendon can tear, lengthen and lose its function. Some people who have had reasonable arches all their lives will notice that the arch suddenly falls later in life. They have probably had posterior tibial tendonitis in the past, and finally the tendon has ruptured completely. The reconstruction of a posterior tibial tendon is something that I think the orthopedic foot and ankle surgeons have really advanced, and we have developed new, effective procedures to get people back to having a foot that is functional and pain free. We can reconstruct the tendon, reinforce and tighten the structures of the inner part of the ankle and realign the foot to deal with a problem that has often been ignored.

MARK: If surgery is not indicated, a conservative measure is to strengthen that tendon. We find there are simple exercises from which many patients can experience immediate benefits.

DR. SEIBERG: Some patients who are not surgical candidates might also benefit from an arch support brace. Although it does not correct the problem, it holds the foot in place for more comfort.

DR. FRISCIA: Joint replacement has evolved in orthopedics in the last 30 years and is extremely successful in the knee and hip and even the shoulder to some extent. Thirty years ago, the initial ankle replacements weren't very good, and the procedure was abandoned for a while. Ankle fusion has been the standard treatment for ankle arthritis, which has been very effective. But now there are also newer procedures and better prostheses, and in some patients, the ankle replacement can be considered. The advantage to ankle replacement is that you can retain some motion of the ankle and it may limit the stress on other joints.

DR. SEIBERG: There is exciting ongoing research, including taking cells from your own patient and growing cartilage that can be used to replace arthritic areas.

DR. FRISCIA: That's right; that is osteochondral grafting, which we do here at Eisenhower. We take cartilage cells from the patient, send them to a lab where they culture the cells to make new cartilage cells and use them to restore an area in need of cartilage.

DR. FRISCIA: A few words about ankle sprains. Fortunately, the ligament usually heals, and with proper therapy and rehabilitation, people return to their normal activities. For some people who may have had recurrent sprains, we can perform a tendon transfer in which we are able to reconstruct the ankle ligaments and restore stability.

MARK: This is the most common of all sports injuries. It has been shown that "active rest"— where the patient protects the injury but does other types of exercise rather than doing no exercise — is very important. Also, many people believe they should ice a sprain for 48 hours and then switch to heat. Ice is beneficial, and switching to heat can increase the swelling. A good rule of thumb to follow is if the injury is tender to the touch, it is better to continue to use ice.

DR. FRISCIA: Yes, and recovery is individualized. Once the ligament has healed, there are really no major restrictions for most people. They can go back to athletic activities and hobbies and should have adequate strength. But it is vital to have proper rehabilitation, and it may be six months to a year before they are back to full strength.

DR. SEIBERG: People usually have pain because something is inflamed. So if you get down to the inflammation, you get rid of the pain. The whole goal is to have people work through the problem and continue to do what they want to do.

DR. FRISCIA: Fortunately, we have all the modalities to care for patients with foot and ankle issues; it is important for patients to heal, have physical therapy and be able to resume their usual activities and sports without pain.

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