NOMS

ANKLE & FOOT
CARE CENTERS

GET A HANDLE ON YOUR HEEL PAIN

Does one (or even both) of your heels hurt? If so, you aren't alone. A study by the American Podiatric Medical Association (APMA) found that nearly 40 percent of all Americans have suffered from heel pain some point in their lives.

So what causes heel pain? Furthermore, what are the best ways to fix this problem that can drastically impact your quality of life? Can heel pain be prevented entirely?

Determining the cause of heel pain is not always a simple answer, but early treatment is vital. Educating yourself about the main causes of heel pain, as well as the best ways that you and your podiatrist can treat and prevent this common foot condition, will help keep your feet healthy and pain-free.

The heel bone is the largest of the 26 bones in the human foot, which also has 33 joints and a network of more than 100 tendons, muscles, and ligaments. Like all bones, it is subject to outside influences that can affect its integrity and its ability to keep us on our feet. Heel pain, sometimes disabling, can occur in the front, back, or bottom of the heel.

WHAT IS CAUSING MY HEEL PAIN?

Heel pain has many causes. Heel pain is generally the result of faulty biomechanics (walking gait abnormalities) that place too much stress on the heel bone and the soft tissues that attach to it. The stress may also result from injury, or a bruise incurred while walking, running, or jumping on hard surfaces; wearing poorly constructed footwear (such as flimsy flip-flops); or being overweight.

HEEL SPURS

A bony growth on the underside of the heel bone is a heel spur. The spur, visible by X-ray, appears as a protrusion that can extend forward as much as half an inch. When there is no indication of bone enlargement, the condition is sometimes referred to as “heel spur syndrome.” Heel spurs result from strain on the muscles and ligaments of the foot, by stretching of the long band of tissue that connects the heel and the ball of the foot, and by repeated tearing away of the lining or membrane that covers the heel bone. These conditions may result from biomechanical imbalance, running or jogging, improperly fitted or excessively worn shoes, or obesity.

PLANTAR FASCIITIS

Both heel pain and heel spurs are frequently associated with plantar fasciitis, an inflammation of the band of fibrous connective tissue (fascia) running along the bottom (plantar surface) of the foot, from the heel to the ball of the foot. It is common among athletes who run and jump a lot, and it can be quite painful.

The condition occurs when the plantar fascia is strained over time beyond its normal extension, causing the soft tissue fibers of the fascia to tear or stretch at points along its length; this leads to inflammation, pain, and possibly the growth of a bone spur where the plantar fascia attaches to the heel bone. The inflammation may be aggravated by shoes that lack appropriate support, especially in the arch area, and by the chronic irritation that sometimes accompanies an athletic lifestyle.

Resting provides only temporary relief. When you resume walking, particularly after a night’s sleep, you may experience a sudden elongation of the fascia band, which stretches and pulls on the heel. As you walk, the heel pain may lessen or even disappear, but that may be just a false sense of relief. The pain often returns after prolonged rest or extensive walking.

EXCESSIVE PRONATION

Heel pain sometimes results from excessive pronation. Pronation is the normal flexible motion and flattening of the arch of the foot that allows it to adapt to ground surfaces and absorb shock in the normal walking pattern.

As you walk, the heel contacts the ground first; the weight shifts first to the outside of the foot, then moves toward the big toe. The arch rises, the foot generally rolls upward and outward, becoming rigid and stable in order to lift the body and move it forward. Excessive pronation—excessive inward motion—can create an abnormal amount of stretching and pulling on the ligaments and tendons attaching to the bottom back of the heel bone. Excessive pronation may also contribute to injury to the hip, knee, and lower back.

ACHILLES TENDINITIS

Pain at the back of the heel is associated with Achilles tendinitis, which is inflammation of the Achilles tendon as it runs behind the ankle and inserts on the back surface of the heel bone. It is common among people who run and walk a lot and have tight tendons. The condition occurs when the tendon is strained over time, causing the fibers to tear or stretch along its length, or at its insertion on to the heel bone. This leads to inflammation, pain, and the possible growth of a bone spur on the back of the heel bone. The inflammation is aggravated by the chronic irritation that sometimes accompanies an active lifestyle and certain activities that strain an already tight tendon.

OTHER POSSIBLE CAUSES OF HEEL PAIN INCLUDE:

- Rheumatoid arthritis and other forms of arthritis, including gout, which usually manifests itself in the big toe joint;
- An inflamed bursa (bursitis), a small, irritated sac of fluid; a neuroma (a nerve growth); or other soft-tissue growth. Such heel pain may be associated with a heel spur or may mimic the pain of a heel spur;
- Haglund's deformity ("pump bump"), a bone enlargement at the back of the heel bone in the area where the Achilles tendon attaches to the bone. This sometimes painful deformity generally is the result of bursitis caused by pressure against the shoe and can be aggravated by the height or stitching of a heel counter of a particular shoe;
- A bone bruise or contusion, which is an inflammation of the tissues that cover the heel bone. A bone bruise is a sharply painful injury caused by the direct impact of a hard object or surface on the foot.

WHEN TO VISIT A PODIATRIST?

If pain and other symptoms of inflammation—redness, swelling, heat—persist, limit normal daily activities and contact a doctor of podiatric medicine.

DIAGNOSIS AND TREATMENT

The podiatric physician will examine the area and may perform diagnostic X-rays to rule out problems of the bone.

Early treatment might involve oral or injectable anti-inflammatory medication, exercise and shoe recommendations, taping or strapping, or use of shoe inserts or orthotic devices. Taping or strapping supports the foot, placing stressed muscles and tendons in a physiologically restful state. Physical therapy may be used in conjunction with such treatments. A functional orthotic device may be prescribed for correcting biomechanical imbalance, controlling excessive pronation, and supporting the ligaments and tendons attaching to the heel bone. It will effectively treat the majority of heel and arch pain without the need for surgery.

Only a relatively few cases of heel pain require more advanced treatments or surgery. If surgery is necessary, it may involve the release of the plantar fascia, removal of a spur, removal of a bursa, or removal of a neuroma or other soft-tissue growth. However there is a non-surgical option that can be considered. Extracorporeal Pulse Activation Technology (EPAT) is an advanced non-invasive technology platform utilizing acoustic energy.

EXTRACORPOREAL PULSE ACTIVATION TECHNOLOGY (EPAT)

This modality offers patients who suffer from acute and chronic musculoskeletal pain access to non-invasive treatments as an alternative to traditional treatment methods including surgery. EPAT improves blood flow, thus improving mobility with minimal risks or side effects.

WHAT IS EPAT?

Extracorporeal Pulse Activation Technology (EPAT) is the most advanced and highly effective noninvasive treatment method cleared by the FDA. This proprietary technology is based on a unique set of pressure waves that stimulate the metabolism, enhance blood circulation and accelerate the healing process. Damaged tissue gradually regenerates and eventually heals. This non-invasive office-based procedure represents a breakthrough treatment option for a broad range of musculoskeletal conditions.

WHAT ARE THE EXPECTED RESULTS?

The beneficial effects of EPAT are often experienced after only 3 treatments. Some patients report immediate pain relief after the treatment, although it can take up to four weeks for pain relief to begin. The procedure eliminates pain and restores full mobility, thus improving your quality of life. Over 80% of patients treated report to be pain free and/or have significant pain reduction.

WHY CONSIDER NON-INVASIVE EPAT?

EPAT has a proven success rate that is equal to or greater than that of traditional treatment methods (including surgery) and without the risks, complications and lengthy recovery time. EPAT is performed in your physician's office/ clinic, does not require anesthesia, requires a minimal amount of time, patients can bear weight (i.e. walk) immediately, and return to work/normal activities within 24-48 hours, resuming strenuous activities after 4 weeks.

IS IT SAFE?

This modality offers patients who suffer from acute and chronic musculoskeletal pain access to non-invasive treatments as an alternative to traditional treatment methods including surgery. EPAT improves blood flow, thus improving mobility with minimal risks or side effects.

HOW IS THE TREATMENT PERFORMED?

Coupling gel is applied to the treatment area of interest to enhance effectiveness. After these preparations, EPAT pressure waves are released via the applicator moved over the area of interest in a circular motion.

WHAT IS THE DURATION OF THE TREATMENT AND HOW MANY TREATMENTS WILL I NEED?

Treatment sessions take approximately 5-10 minutes depending on the disorder to be treated. Generally, 3-5 treatment sessions are necessary at weekly intervals.

WHY CONSIDER NON-INVASIVE EPAT?

- Evidence based
- Non-invasive
- No anesthesia
- No risk of infection
- No scarring
- No downtime
- Over 80% patient satisfaction
- Faster, easier healing

Interested in learning if this treatment could help you?

Call or visit one of our locations!

PREVENTION

A variety of steps can be taken to avoid heel pain and accompanying afflictions:

- Wear shoes that fit well—front, back, and sides—and have shock-absorbent soles, rigid shanks, and supportive heel counters
- Wear the proper shoes for each activity
- Do not wear shoes with excessive wear on heels or soles
- Prepare properly before exercising. Warm up and do stretching exercises before and after running.
- Pace yourself when you participate in athletic activities
- Don't underestimate your body's need for rest and good nutrition
- If obese, lose weight

FOOTWEAR
AND HEEL PAIN

An APMA survey found that 45 percent of Americans attribute their heel pain to wearing uncomfortable or ill-fitting shoes. What types of footwear are "best bets" for avoiding heel pain?

FOOTWEAR	PROBLEM	SOLUTION
Athletic Shoe	Heel pain can occur while wearing athletic shoes – especially if the shoe has a worn heel or sole, or does not provide enough support.	• Replace shoes with excessive or uneven wear on soles and heels. • Replace shoes every 350-500 miles • To test the support of the heel, press the sides and make sure they do no collapse.
Ballet Flat	This popular style of shoe can cause plantar fasciitis, Achilles tendon strain and an overall feeling of tiredness in the feet and legs.	• Make sure the shoe doesn't bend too easily in the middle. • Use an over-the-counter insert to provide support. • Don't walk long distances in these shoes.
Flip-Flop	Surprisingly, this easy-to-wear shoe can lead to plantar fasciitis and Achilles tendon strain. Daily wear of flip-flops can also cause calluses in the heel area.	• Select flip-flops made of natural materials such as soft, supple leather. • The heel of your foot should not hang over the edge. • Look for styles with a built-in arch.
Fashion Sneaker	This type of sneaker may cause plantar fasciitis due to the flexible sole and the lack of arch and heel support.	• Make sure the sneakers have laces and the soles don't twist. • Don't wear this shoe for exercise; it is not intended for athletic activities.

SPORTS AND HEEL PAIN

Participating in sports that include jarring starts and stops, or sports performed on uneven surfaces, can quickly lead to heel pain. The chart below outlines several popular sporting activities and tips to avoid heel pain during each.

SPORT	PROBLEM	SOLUTION
Running	Pain in the arch and bottom of the heel can be caused by both short and long distance running.	• Choose the correct shoe for running short or long distances. This can prevent most pain. • Try over-the-counter insoles. They can sometimes help to relieve pain by providing cushion and shock absorption. Custom orthotics help many runners. • Replace worn shoes every 350-500 miles.
Walking & Hiking	Walking and hiking may irritate a Haglund's deformity, which is a bump on the back of the heel bone where the Achilles tendon attaches. It can become larger or inflamed over time.	• Wearing shoes or boots with stiff heel counters can irritate the heel bone, especially on steep uphills. • Selecting a shoe with a lower or softer heel counter may relieve pain. • Using heel lifts and custom orthotics can reposition the heel and reduce irritation.
Tennis	Tennis may cause pain on the outer sides of the heel due to body positioning during play.	• Increase stretching at the first signs of heel pain. • Include stretching the hamstrings. • Using insoles and custom molded orthotic devices available from a podiatric physician can help.
Basketball	Basketball, as well as other jarring sports, can cause stress fractures and pain on the bottom, back and sides of the heel.	• High-top shoes can help to keep the foot stable. • Stretch the entire leg and foot before playing. • Heel lifts and custom foot orthoses can prevent pain or provide relief.

17 LOCATIONS

OFFERING EARLY MORNING, EVENING AND SATURDAY APPOINTMENTS

2120 W. State St,
Alliance, OH 44601
330.823.4455

163 W. Main Street,
Andover, OH 44003
440.293.6765

1450 S. Canfield Niles Road,
Austintown, OH 44515
330.270.2700

1265 Boardman-Canfield Rd,
Boardman, OH 44512
330.758.8808

8175 Market St,
Boardman, OH 44512
330.629.8800

315 Struthers-Liberty Rd,
Campbell, OH 44405
330.750.9187

4696 Mahoning Ave,
Champion, OH 44483
330.847.0072

258 State Route 14, Suite C,
Columbiana, OH 44408
330.482.1960

16844 St. Clair Ave,
East Liverpool, OH 43920
330.385.2413

3 Greenville Center,
Greenville, PA 16125
724.588.3770

720 Youngstown-Warren Rd,
Niles, OH 44446
330.652.0535

3262 Center Rd,
Poland, OH 44514
330.707.1220

444 South Meridian St, Suite 7,
Ravenna, OH 44266
330.297.7330

2380 Southeast Blvd,
Salem, OH 44460
330.337.8870

924 Youngstown-Poland Rd,
Struthers, OH 44471
330.707.1360

1700 East Market St,
Warren, OH 44483
330.399.5577

500 Gypsy Lane, Suite 201,
Youngstown, OH 44505
330.747.4888