Plantar fasciitis

Help for heel pain

You know how it feels if you’re barefoot and unexpectedly step heel-first on a sharp piece of gravel. You experienced that same sensation this morning when you first stepped out of bed — only there wasn’t any gravel on the floor.

Heel pain may be due to a number of things, but most commonly it’s caused by inflammation of the fibrous tissue that runs along the bottom of your foot. This fibrous tissue is the plantar fascia (PLAN-tur FASH-e-uh). Fortunately, inflammation of this tissue — called plantar fasciitis (fas-e-tis) — usually clears up with self-care treatments within 24 months.

At the base of it all

Many times the cause of heel pain isn’t serious, but it can be quite limiting. Some other causes need to be ruled out, including pain due to a pinched nerve in your back or at the level of the ankle or foot, a stress fracture, or chronic conditions, such as inflammatory arthritis. But in most cases, pain on the bottom of the heel is due to plantar fasciitis.

The plantar fascia connects your heel bone (calcaneus) to your toes. It’s on the bottom of your foot and has a lot to do with supporting your
foot. It acts like a shock-absorbing bowstring that supports the arch and keeps the foot from collapsing.

The trouble comes if there’s too much tension placed on your foot’s “bowstring.” The result can be microscopic tears in the fibrous plantar fascia tissue, inflammation and piercing pain, or aching or a burning sensation in the heel. Usually, the problem is gradual, affecting only one foot.

Pain is usually the worst in the morning. Those first steps can be excruciating because the plantar fascia has had a chance to tighten up during the night while the foot was relaxing. Typically, as the foot limbers up, the pain is usually less.

Other telltale signs may include:
- Heel pain following long periods of standing, if you’re climbing stairs or standing on your toes.
- Heel pain after exercise but not usually during exercise.

Why me?

Plantar fasciitis can affect people of all ages. Overuse may be the cause among highly active teens and people in their 20s and 30s. People who are less active and then suddenly become active or start an athletic program are at greater risk. It can be more common in middle-aged or older adults. As the plantar fascia loses some ability to stretch, the fat pad protecting the heel thins and the foot becomes less shock-tolerant.

Excessive weight also can place more stress on your feet. Other factors that may influence your risk of dealing with plantar fasciitis include:

- Improper shoes — Improper footwear may include shoes with soles that are thin or lack shock absorption, have poor arch support or are loose around the heel. In addition, avoid regularly wearing 2-inch or higher heels. These can cause contraction of the Achilles tendon that runs up the back of your heel and connects with your calf muscles. Regularly wearing high heels and then switching to a flatter shoe increases strain on the tissues around the heel, possibly affecting the plantar fascia.
- Overloading your feet — Activities that regularly keep you on your feet for an extended time can increase your risk. So does lifting heavy objects. In addition, making a sudden change in the amount of weight-bearing activities you do — such as walking more than usual while on vacation — ups your risk of plantar fasciitis.
- Stressing the foot due to mechanics — An abnormal walking pattern that interferes with even distribution of weight may place added stress on the plantar fascia. Having flat feet may also make you more likely to develop plantar fasciitis. The same is true if you have high arches, which can result in tightening of the plantar fascia and poor shock absorption.

In addition, some forms of inflammatory arthritis — such as rheumatoid arthritis — may first show up as tendon inflammation. These conditions usually occur simultaneously in both heels and can be identified using a blood test.

Self-help steps

Patience and persistence are needed to give the plantar fascia a chance to heal. In addition to losing any excess weight, try:

- Daily stretches — Stretching increases the flexibility of the plantar fascia, Achilles tendon and calf muscles. Do some stretches before getting out of bed in the morning to help reduce pain with your first steps. Stretch several times a day and wear a night splint so that you don’t lose the benefit of those stretches.
- Cooling your heel — Soaking only your heel in cold water may help. Or apply a cloth-covered ice or gel pack for 15 minutes, especially after an activity. A bag of unpopped popcorn kernels made cold in the freezer can also be used. However, if you have diabetes, neuropathy or poor circulation, talk with your health care provider before using cold therapy.
- Wearing appropriate shoes — Low- to medium-heel shoes with no more than 1- to 2-inch heels with good support and shock absorption are best. Replace your shoes regularly with the help of a shoe retailer who does specialized fitting. There are a variety of shoe inserts such as heel cups, specialized over-the-counter insoles, and arch supports that also may help. If possible, avoid going barefoot.

In addition, you may find that nonprescription pain relievers such as ibuprofen (Advil, Motrin IB, others) and naproxen (Aleve, others) are best. Replace your shoes regularly with the help of a shoe retailer who does specialized fitting. There are a variety of shoe inserts such as heel cups, specialized over-the-counter insoles, and arch supports that also may help. If possible, avoid going barefoot.

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ease some of the pain and inflammation. Use them only as directed.

**Other treatment options**

If self-help measures aren’t providing relief with time, it may be necessary to try additional measures. Although the cost can be several hundred dollars, custom-fit shoe inserts (orthotics) may help distribute the pressure on the foot while offering more even support.

Another option may be to use a night splint. This is an adjustable boot that can be wound while you sleep. You may find wearing it during the day is helpful if you’re sitting for extended time periods. It keeps the foot at a 90-degree angle to the leg, preventing the plantar fascia from contracting and healing in a shortened position.

Physical therapy may be useful. Ultrasound may be used to deliver deep heat to the bottom of your foot, increasing blood flow to help promote healing. Another technique — iontophoresis (i-on-to-fuh-RE-sis) — involves applying topical cortisone to the heel area followed by electrical stimulation of the area. Certain types of foot massage can help.

If these measures fail, your doctor may consider using a cortisone injection. In some instances, a cast or walking boot is recommended to completely immobilize the foot over a period of four to six weeks.

If conventional therapies fail to relieve heel pain, other more aggressive options, including extracorporeal shock wave therapy — which uses high-energy shock waves — or surgery, may be considered.

Whether shock wave therapy is beneficial for most people with this problem is being debated. Surgery is rarely necessary because other less invasive treatments are usually effective over time. The notion that heel spurs cause plantar fasciitis and therefore should be surgically removed is no longer valid.

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**Health tips**

**Practicing relaxation**

The ability to deeply relax and release tension from your body and mind doesn’t always come naturally. For many people, it’s a skill that needs to be developed and practiced several times a week or when you find yourself in a stressful situation.

To do so, find a comfortable position and focus your mind for about 10 minutes on one or more of the following:

- **Put the tip of your tongue on the roof of your mouth and spend a few minutes relaxing different groups of muscles in your jaw and face.**

- **Place one hand over your heart and one hand on your abdomen. Close your eyes. Inhale gently and deeply through your nose to the count of six while pushing your abdomen out. Pause for a moment, then slowly exhale and repeat.**

- **Starting at your feet, flex small groups of muscles for a moment and then release the tension. Gradually move up your body, letting each area along the way fully relax.**

- **Close your eyes and picture yourself in a place of relaxation — a high mountain meadow, perhaps, or by a lake. Imagine the sights, sounds, smells and feel of this place.**

Done regularly, relaxation techniques may reduce stress and lower your blood pressure and heart rate. Many people find they are more productive and calmer if they use relaxation techniques on a regular basis.

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Many people with heel spurs have no heel pain. And many people with plantar fasciitis don’t have heel spurs. Heel spurs are generally not the underlying cause.
The possibilities are many

For a lot of older adults, aching muscles or joints are common. Muscles and tendons tend to weaken with age and become less flexible, which may make your body feel stiff at times or may make it easier to become sore or injured from physical activity. You may also have pain and stiffness in certain joints due to wear-and-tear arthritis (osteoarthritis).

In some cases, an aching body can be a symptom of a disease or another problem such as a side effect from a medication. You may want to visit your doctor if you’ve been aching for more than a month, the aching is particularly intense or interfering with your normal activities, if you have stiffness in the morning that lasts more than an hour or if your aching has come on rather suddenly without an obvious cause, such as overexertion.

What your doctor might do

An aching body can be a symptom in a wide range of diseases and conditions. In addition to examining your medical history and asking about the nature of your aching, your doctor may order tests to begin narrowing the list of potential problems, including blood tests to detect:

- Inflammation in your body
- Problems with your immune system
  - Infection
  - Muscle damage
  - Thyroid function
  - Vitamin D levels

For older adults, the more common causes of aching include:

- Polymyalgia rheumatica
  - This causes widespread, moderate to severe joint stiffness and muscle aching that often involve the neck,
shoulders and hips. Symptoms are usually worse in the morning and without treatment usually can last for a few years before subsiding.

Treatment: Relatively low doses of the corticosteroid prednisone usually provide dramatic and immediate relief from symptoms.

- Infections — Short-lived body aches can accompany a bacterial infection, such as bacterial pneumonia, or viral infection, such as the flu (influenza). Other infections such as Lyme disease or parvovirus can cause more long-lasting joint pain.

Treatment: Symptoms usually go away once the infection is gone, but in some cases of viral infections, symptoms can last longer, even once the infection has been cleared. In the case of Lyme disease, antibiotics may be prescribed. Most viral infections don’t require treatment.

- Rheumatoid arthritis — This and other forms of inflammatory arthritis, such as ankylosing spondylitis or systemic lupus erythematosus, are considered autoimmune diseases. That means your immune system attacks parts of your body, causing inflammation and tissue damage, particularly in joints. The inflamed joints are often swollen and warm. Rheumatoid arthritis typically affects corresponding joints on each side of the body. In addition to joint pain, you may have a general feeling of muscle aching and fatigue.

Treatment: A wide variety of medications — such as corticosteroids or drugs that affect your immune system — are typically the mainstays of treatment to reduce pain and inflammation.

- Inflammatory myopathies — These are autoimmune diseases in which your immune system may attack your muscles, often causing progressive muscle weakness over weeks or months and mild muscle pain and tenderness.

Treatment: Corticosteroids or drugs that affect your immune system are recommended to control the disease.

- Depression — Aches and pains can be one of numerous signs and symptoms of depression. In addition, people coping with chronic pain often can become depressed, and having depression can heighten sensations of pain and aching.

Treatment: Combining an antidepressant medication with some form of psychotherapy is an effective approach. Some types of antidepressants also help with pain. These include tricyclics — amitriptyline, nortriptyline (Pamelor) — and serotonin norepinephrine reuptake inhibitors, such as duloxetine (Cymbalta) and venlafaxine (Effexor).

- Taking cholesterol-lowering medications — These commonly prescribed drugs sometimes cause muscle pain and weakness. Occasionally, they may cause myopathy, a side effect characterized by severe muscle aching and weakness, which should be reported to your doctor. These include several different drugs in the statin class such as atorvastatin (Lipitor), fluvastatin (Lescol), lovastatin (Mevacor, others), pravastatin (Pravachol, others), rosuvastatin (Crestor), simvastatin (Zocor, others), and also other cholesterol-lowering drugs such as ezetimibe (Zetia) and gemfibrozil (Lopid, others).

Treatment: Talk to your doctor about discontinuing the drug and finding other ways to control your cholesterol levels.

- Underactive thyroid disease (hypothyroidism) — This occurs when your thyroid gland isn’t producing enough of the metabolism-regulating hormone thyroxine. Most prevalent in women over 60, some of the first symptoms are constant fatigue with muscle aches and an inability to stay warm when it’s cool.

Treatment: Taking a synthetic version of thyroxine daily.

- Vitamin D deficiency — Vitamin D is produced by skin when it’s exposed to sunlight. Otherwise, there are few sources of vitamin D found in foods. Without taking a vitamin D supplement, it’s possible to become vitamin D deficient over time, which can cause muscle weakness, aches and pains.

Treatment: Vitamin D supplementation.

- Fibromyalgia — Although signs and symptoms of fibromyalgia vary, they often include fatigue and widespread pain and aching in your muscles and joints. In addition, you may have multiple tender points, or places on your body where slight pressure causes pain.

Treatment: Work to manage your pain using techniques such as those that follow.

Breaking the aches

If your doctor can’t identify a disease or condition that may be causing your aching — or if you have a condition such as osteoarthritis or fibromyalgia in which the main treatment is to manage pain — steps you can take include exercising, stretching your muscles, managing stress, eating a healthy diet, drinking plenty of water and getting plenty of sleep. Other steps include:

- Heat and cold — Applying heat can ease pain, relax tense muscles and improve blood flow to sore muscles. Applying cold may help dull pain and reduce swelling and inflammation.

- Medications for pain — If you don’t have any signs of inflammation, acetaminophen (Tylenol, others) can help relieve aches. Certain antidepressants can help reduce chronic pain and improve sleep even if you don’t have depression.

Hard-to-eliminate pain

Try not to dwell on your pain. Focus on maintaining a healthy lifestyle and otherwise doing what you can do to keep your aches to a minimum.

Myasthenia gravis
A treatable muscle weakness disorder

Is it your imagination? One eyelid seems to be lower than the other. But the difference really stands out in photos from your recent anniversary celebration.

Your doctor wants to look into a couple of possibilities for the drooping eyelid, one being a neuromuscular disorder called myasthenia gravis (mi-uhs-THE-ne-uh GRA-vis). This chronic disease results in muscle weakness that’s more pronounced with activity and typically improves with rest. Diagnosing myasthenia gravis can be tricky, but once identified, there are several treatments.

Lost connections
When you decide to move a muscle (voluntary movement) — for example, pick up a glass — your brain transmits nerve impulses to areas in muscles called neuromuscular junctions. The nerve impulses signal nerve endings to release the chemical acetylcholine, which travels through the junction to muscles and signals them to contract.

Myasthenia gravis — which means “grave muscle weakness” — occurs when there’s a lost connection between nerves and muscles. With myasthenia gravis, your body’s immune system produces antibodies that interfere with receptors for acetylcholine on the muscle surface. Why the immune system turns on the body may have something to do with the thymus gland.

Myasthenia gravis can occur at any age, but is more common in women under 40 and in men older than 50. The disease affects the muscles you control voluntarily. Those more commonly affected include eye muscles, facial muscles — including those controlling chewing, swallowing and talking — movement of the head, arms and legs, and rarely even muscles that control breathing. Signs and symptoms may include:

- Facial muscle weakness, including drooping eyelids (ptosis), difficulty closing your eyes
- Blurred or double vision
- Difficulty chewing, swallowing, talking or breathing
- Fatigue with repeated movement
- Weakness in arms or legs
- Forward drooping of the head

Rarely, the disorder affects diaphragm and rib cage muscles that are important for breathing and may be fatal if infection, fever or a medication reaction is also involved. Seek medical care if your symptoms are severe or progress rapidly.

Diagnosing myasthenia gravis

Muscle weakness is common in many disorders. That’s why making a diagnosis can be more challenging if only a few muscles are affected or the weakness is mild.

If myasthenia gravis is suspected, in addition to a neurological exam, tests your doctor may order include a blood test to check for abnormal antibodies, which are present in the majority of people with the disorder. You may also have an electromyogram (EMG) to test the connection between the nerves and muscles and possibly to evaluate the electrical activity of the muscle. A test used less commonly involves an injection of edrophonium (Tensilon) to see if muscle strength temporarily improves.

Renewed strength

Treatment options include:
- **Medications** — Medication treatment lasting from months to years is often necessary. Options include cholinesterase inhibitors — such as pyridostigmine (Mestinon) and neostigmine (Prostigmin). These can improve communication between nerves and muscles, increasing muscle strength. Drugs that suppress the immune system — such as corticosteroids, azathioprine (Imuran, Azasan), mycophenolate (CellCept, Myfortic), cyclophosphamide (Cytoxan, others) and cyclosporine (Sandimmune, Neoral, others) — may be used to reduce antibody production, although long-term use can produce serious side effects.
- **Surgery to remove the thymus (thymectomy)** — About 40 percent to 50 percent of people experience a long-term disappearance of symptoms after thymectomy. That remission typically occurs gradually over one to 10 years. Surgery is essential if a tumorous growth is involved. People younger than 55 tend to respond better to this treatment.
- **Plasmapheresis** — This therapy may be used in life-threatening circumstances. Blood is removed from the body, filtered by a machine to remove antibodies and then returned to the body.
- **Intravenous immunoglobulin (IVIG)** — This provides short-term relief by offering types of antibodies that influence immune responses. It’s a good alternative to plasmapheresis, but costly.

Prognosis generally good

A long-term disappearance (remission) of symptoms is possible, but many people require medication indefinitely. For most, treatment results in significant improvements in muscle weakness.
Colitis

A cause of persistent diarrhea in older adults

Your diarrhea came on suddenly — that didn’t seem unusual. What worried you was that it didn’t go away.

Your worry is well-founded. Diarrhea that lasts more than a few days typically warrants a trip to the doctor. And it may take several tests and sometimes even a colonoscopy to arrive at a diagnosis. That’s because a number of diseases can cause diarrhea, and determining the cause of your problem is the first step toward effective treatment.

Among potential causes of persistent diarrhea are diseases of the colon called microscopic colitis, two of which are collagenous colitis and lymphocytic colitis. These somewhat uncommon diseases are most likely to occur in adults age 50 and older. They are often misdiagnosed as irritable bowel syndrome.

Knowing the difference

Collagenous colitis and lymphocytic colitis are both inflammatory conditions of the colon with virtually identical signs and symptoms. They’re treated in the same way, as well. The difference between the diseases is mainly at the microscopic level. When colon tissue affected by collagenous colitis is viewed under a microscope, a thickened band of stiff connective tissue (collagen) is seen in the colon lining. With lymphocytic colitis, there’s an increased number of white blood cells (lymphocytes) in the colon lining.

The most common sign of these diseases is watery diarrhea that doesn’t contain any blood. Some people have from three to 20 bowel movements a day. For some, it’s a consistent, daily problem, while others experience cycles of improvement and worsening. With either disease, you may also experience weight loss, cramps and bloating.

Although these signs and symptoms closely resemble those of irritable bowel syndrome — which is a far more common disorder — collagenous colitis and lymphocytic colitis tend to occur in older adults who have no history of digestive problems. Irritable bowel syndrome is more likely to have a long-term course that for some may include constipation or diarrhea, or alternate between the two.

Diagnosis

The only sure way to diagnose collagenous or lymphocytic colitis is to obtain a biopsy sample of your colon tissue for examination under a microscope. This is done with either colonoscopy or flexible sigmoidoscopy. Both of these tests involve threading a flexible, camera-tipped tube into your colon to visualize the bowel. If needed, a biopsy instrument can be inserted to take one or more tissue samples.

Since treatment for these diseases is the same, differentiating between them isn’t necessarily crucial. What’s crucial is to rule out other, more serious inflammatory bowel diseases such as ulcerative colitis, Crohn’s disease, or infectious causes, including diarrhea resulting from antibiotic treatments.

Other options

You may be able to eliminate or minimize the symptoms of collagenous or lymphocytic colitis by:

- Decreasing the amount of fat you consume
- Eliminating caffeine from your diet
- Experimenting with eliminating lactose — a milk sugar found in many dairy products — from your diet

Additionally testing, such as blood tests, stool sampling or even a biopsy of your small intestine may be used to rule out other diseases. For example, similar signs and symptoms can be caused by an infection or by celiac disease — a digestive sensitivity to the protein gluten found in wheat, barley or rye.

Treatments work well

Many cases of collagenous or lymphocytic colitis get better within a few weeks without treatment. To relieve signs and symptoms sooner, or to relieve those that won’t go away, it’s usually recommended to start with the simplest, best tolerated treatments, moving to treatments with greater risk of side effects when simpler therapies aren’t effective.

In addition to self-care strategies, your doctor may also recommend:

- **Anti-diarrheal drugs** — Drugs such as loperamide (Imodium, others) or the combination drug diphenoxylate and atropine (Lomotil, others) may help slow bowel contractions. Bismuth subsalicylate (Pepto-Bismol, others) also may help.

- **Anti-inflammatory drugs for the colon** — If anti-diarrheal drugs aren’t effective, mesalamine (Asacol, Pentasa), balsalazide (Colazal) or sulfasalazine (Azulfidine) may help.

- **Cholesterol-lowering medication** — One of these drugs, cholestyramine (Questran, others), has shown some effectiveness.

- **Oral corticosteroids** — In severe cases, certain types of corticosteroids can help quiet colon inflammation. Due to potential side effects with prolonged use, corticosteroids are often used for a limited time. The condition may return when you discontinue this drug.

In rare cases, immune-suppressing drugs of the type that are often used with diseases such as rheumatoid arthritis or Crohn’s disease — or even surgery to remove the colon — may be used as a last resort.
Second opinion

Questions and our answers

Q: Because I have high blood pressure, my doctor has convinced me to quit reaching for the saltshaker at the dinner table. But what about using pepper?

A: Go ahead. For people with high blood pressure, pepper is actually a good choice. Black, white or green pepper contains virtually no sodium. Of course, that’s assuming that your pepper shaker — or grinder — contains pure pepper and not some type of pepper and salt mixture such as lemon pepper.

Pepper comes from the berry-like fruits (peppercorns) of the black pepper plant (Piper nigrum), which is widely grown in tropical climates. Peppercorns can be purchased in black, white or green. Pink or red peppercorns also exist, but these come from a different type of plant.

In terms of nutrition, a few shakes of pepper is hardly a bonanza, but it will give you trace amounts of fiber, iron, calcium and magnesium, as well as other vitamins and antioxidants. And for those with a diminished sense of taste, pepper and other spices may help restore appetite and enjoyment of food.

Q: I tried a new weight-loss supplement that contains green tea extract. About an hour after I took the pill, my heart was pounding and seemed to be racing. Could this be from the green tea or something else in the pills?

A: It could be either. Green tea, like other teas, contains a significant amount of caffeine. In addition, green tea contains other stimulants, such as theobromine and theophylline. These or other stimulants may actually be added to a weight-loss product containing green tea so that it contains far more stimulants than does a pure green tea extract.

These stimulants can all cause the heart to pound and beat faster. The substances could even cause heart rhythm irregularities in people who are sensitive to the substances. Anyone can experience these symptoms from high doses of caffeine and similar compounds.

And, if you have heart disease, these stimulants could cause other problems. For example, if your heart is beating too fast, it may affect the effectiveness of your heart to pump blood throughout your body.

Supplement products often contain additional active compounds that also have their own set of risks and problems. Since regulation of supplements by the Food and Drug Administration is limited, there’s no guarantee of product purity or of knowing exactly what may be in the product. Since you’ve experienced problems with this supplement in the past, it may be best to avoid it in the future.

Have a question or comment?

We appreciate every letter sent to Second Opinion but cannot publish an answer to each question or respond to requests for consultation on individual medical conditions. Editorial comments can be directed to:

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