My Feet Are Killing Me!

Dr. Levine’s Complete Foot Care Program

Expanded Second Edition

By Suzanne M. Levine, D.P.M.
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Dedication

This book is dedicated to my father Maurice Marin who had both feet on the ground and chose to live life always viewing the glass as half full.

Merci Maurice, "La Vie en Rose"
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Part 1: The First Step
Introduction

“The journey of a thousand miles begins with a single step.”
– Lao-tzu

Let me start this book with one very important fact: it’s not normal for your feet to be killing you. It’s not normal to take your shoes off under your desk, while out to dinner, when standing at a bus stop (yes, I see this often in New York City), or any chance you get. It’s not normal to have feet that throb by midday or for new shoes to hurt and cause you to wince with each step. It’s just not normal to suffer foot pain. That is why I wrote the first version of this book over 25 years ago. A lot has changed in the world of podiatry and all things foot-related since then, and for several years colleagues, patients and former patients have been urging me to write a new book on the topic of feet and foot pain.

Feet keep moving and so does podiatric medicine. We now have many cutting edge, innovative procedures, treatments, and products for common foot problems. For example, there are lasers that can get rid of nail fungus, injectable implants that can cushion painful soles, and joint implants to restore some flexibility to a stiff big toe. These modern treatments are not only more effective but also often less painful with shorter recovery periods.

The change is truly amazing. Today, we understand that everything you do affects your feet including diet, medication, alcohol, and exercise. This is important news because if any part of your body takes a beating and needs some TLC, it’s your feet. By the age of 50, most people’s feet have logged
an amazing 75,000 miles (according to the American Podiatric Medical Association); your car tires don’t last nearly that long!

I have a busy New York City podiatric office, the Institute Beauté, and for close to three decades I have been listening to my patients’ issues and concerns about everything from the ankles down and literally getting them back on their pain-free feet—or at least back in their running shoes, tennis sneakers, and yes, their stilettos. (I am not one of those doctors who tell women to give up their heels; I love them as much as the next woman, but more on that later.) Every time a new patient arrives I realize that many people still don’t know how to give their soles the attention they need.

My motto is, "Treat your feet the way you treat your face." We all spend a lot of time and money on creams, lotions, and treatments for our complexions but neglect the architectural wonder known as our feet. In fact, you could argue that our feet are as, if not more, important. The way you move your entire body begins with your feet. Being well grounded is essential – literally and figuratively. As a practicing podiatrist, I know the importance of healthy feet, but as a woman, I understand the psychological damage that can occur when you can’t wear fashionable shoes. Well, the future is here and progress has been made; now almost everyone can find comfortable and stylish shoes if you know what to look for. But I’ll discuss more on that in the “Shoes 101” chapter.

I see many patients who look great. They’re wearing designer clothes and fabulous jewelry and, thanks to wrinkle-smoothing treatments (and perhaps a plastic surgeon), their faces don’t seem to age. But they walk with a
shuffling gait or they have nail fungus (or both) that makes them look older than they are. What they don’t realize is that the true fountain of youth is walking well, being able to exercise, and having proper posture, all of which require healthy feet and toes. Indeed, many of the treatments discussed in the chapters that follow are far more effective anti-aging treatments than a facelift. Think about it: nothing ages you more than a lack of mobility. Turning back the clock starts with your feet and it is never too late to begin. The good news is that you can walk or run to a physically and mentally fit future on feet that you can be proud of.

This is a subject I’m passionate about. Not only am I a podiatrist with a wide variety of patients, including many celebrities, sometimes I feel that I’m something of a foot psychic. I can read a lot about people in and through, their feet; literally and figuratively your feet are the mirror of your soul. I’m also a shoe lover and someone who has had challenging feet since the day I was born. Feet have been a focal point of my life for as long as I can remember. I honestly don’t recall a time when my feet weren’t on my mind, for better or for worse. Here is a brief summary of my own case study.

At two years old, I was a regular patient at what is now New York City’s Hospital for Special Surgery (then known as “The Hospital for the Ruptured and Crippled”— before political correctness was an issue!). I was severely bowlegged and had very wide feet with sagging arches (also known as flat feet), and both issues were affecting my ability to learn to walk. Today, we would treat these conditions with custom orthotics made of thermal plastics, which you slip into your shoes and no one else knows they are there. But when I was a child the answer was orthopedic shoes that had a major support
system to lift the foot. It attached to your leg with what looked like a brace. (Move over Forest Gump.) Unfortunately, those cumbersome shoes only made matters worse when it came to me learning to walk.

By the time I turned five-years-old, my hideous, special shoes were a regular topic of conversation in my family. They lacked any little-girl appeal, and made it nearly impossible to run or jump. Other kids teased me constantly. I begged not to wear them, but my parents insisted that my very flat, wide feet and developing bunion needed all the podiatric assistance they could get. They wanted the best for me, and of course, it was for my own good. But I didn’t care. I wanted the pretty, pink sneakers and shiny, black, patent leather Mary Jane’s that all the other girls my age were wearing. But it was not to be, at least not yet. Heavy, ugly, uncomfortable orthopedic shoes were my lot. As you can imagine, given my feelings and the expense of the shoes, the regular shopping trips for them were an ordeal for everyone involved. (The only perk was the balloon I’d get at the shoe store, but even the excitement of that wore off around the age of seven.)

By my 10th birthday, I knew all about problem feet and which arch supports and shoe inserts could best get me through a day at school. Since sneakers were still out of the question, my participation in school sports was nil. Ballet and tap dancing lessons were also off-limits. Not only did all this inactivity make for a chubby childhood, it led to others ostracizing me. I felt the pain of having “abnormal feet” both physically and psychologically. And I felt it for many years – especially since I had to wear those dreadful looking laced-up, brown, orthopedic oxfords until I was 16-years-old. Yes, 16! Can you imagine? In a world where heels and strappy sandals reigned
supreme, my feet immediately labeled me as a misfit and made it hard for me to make friends. Dating was difficult, to say the least.

But things changed dramatically after high school when I began to take charge of my situation and pointed myself, and my feet, in a new direction. While studying physical therapy in college, I learned how to rebel happily and comfortably in terms of footwear. Finally, I had a closet full of shoes with high heels, all of which elevated both my body and my spirit. (It should come as no surprise that after a childhood in brown orthopedic shoes, heels are still a passion—bordering on an obsession—of mine.)

My foot problems hadn’t gone away, but I wore what I wanted by learning to shop for shoes that were both “appropriate” for my feet AND beautiful. I learned to exercise the muscles of my legs and calves, stretch the ligaments in my feet, and fathoming out which at-home, foot-pampering treatments worked best for my bunion and flat, wide feet that tired easily. I also discovered that I wasn’t alone in my foot focus. Millions of people like me suffered from regular foot aches and pains, most of us unnecessarily. Now, I understand that eighty per cent of problems related to feet can be prevented, and most of the rest can easily be cured. Oh, how different my childhood would have been if I’d known that back then!

After college, I worked as a physical therapist treating stroke victims, paraplegics, and amputees, many of whom had served in the Vietnam War. It was then that I began to realize just how miraculous walking really is. I also realized how fortunate I was to have two legs, even though they were bowed, and two feet, no matter how wide, how flat, or how encumbered with
bunions and eventually hammertoes. My serious interest in podiatry was born.

As a physical therapist I was a perfect candidate for podiatry school. At the New York College of Podiatric Medicine, my professors used me as an example because the shoes that I wore to class were those that they cautioned patients against wearing. My flat, wide feet with bunions and hammertoes made good lecture material, but I was sure that my professors were wrong. My shoes weren’t the cause of my foot ailments. The ailments came first. It was my careful management of my feet that allowed me to wear fabulous shoes and be the person I had always dreamed I could be. I have learned what my feet need. I wear orthotics; I’ve treated my toenails for fungus, and had hammertoe surgery on the second toe on my right foot. (And believe it or not, I did the surgery myself!) No, they’re not the most attractive feet. But they’re mine and it’s no doubt that they led me on the path to a career I’m passionate about.

Why? One reason is because I want other people, and women in particular, to feel comfortable in their own skins and attractive in their shoes. Women podiatrists are still something of a rarity (believe it or not - there still aren’t many of us out there) and it always bothers me when male podiatrists get interviewed about women’s feet and say something like, “Women shouldn’t wear heels. They’re terrible for you.” To me, that’s not realistic. It’s like telling a woman who wants to lose weight, “Don’t ever eat sugar or carbs again.” Eliminating high heels forever is not a lifestyle change that most women can make. Sure, you can eliminate shoes with high heels for a week or two, but it’s not reality for many women, me included, to do that for the
rest of our lives. There’s a psychological implication involved because many women don’t feel like women without their heels. I know I don’t! I think everyone should be afforded the opportunity to wear heels - at least in moderation. And you can, too!

If you go with the right treatments such as at-home care and, if needed, with doctor’s office procedures, your feet can feel fabulous and look their best. That is my goal with my patients in my practice in New York City and with My Feet Are Killing Me. I’ll detail all the top foot issues and conditions, the latest at-home remedies, and doctors’ office treatments, and show you how to shop for shoes that are both fashionable and comfortable. I’ll also share how lifestyle factors, like how your diet and workouts impact your feet, and provide exercises that help your feet stay pain-free and healthy at home and at work. All you have to do is turn the page and take your first step toward a better life for you and your soles. It’s as easy as putting one foot in front of the other, so what are you waiting for?
Chapter 1
Foot Basics

“The human foot is a masterpiece of engineering and a work of art.”
- Leonardo da Vinci

Although your feet are true works of art and engineering, you can’t feel exultant about them if they are killing you. Before I start explaining why your feet are killing you and how to treat them, it really helps to understand a little bit about the structure of your feet. Don’t worry, this will be a basic rundown to give you a clearer picture, not a lesson worthy of medical school. (I sat through enough of those for the both of us!) The truth is your feet are an unmatched set of architectural wonders. Unmatched? Yes, because no two feet were ever created equal. Your own are not identical, and some people actually have one foot that is a full size larger than the other.

**Bones**

They may be small in relation to the rest of you, but your feet are two of your most complexly engineered body parts. Each foot has at least 26 bones, two very small bones-the sesamoids, 56 ligaments, 38 muscles, and numerous nerves and blood vessels. Plus, they carry the weight of your entire body when you just stand there and multiple times your body weight when you walk or run.
Your foot’s 26 bones
The 26 bones in each foot are structurally arranged so that you can move your feet in a variety of ways. This, combined with the precise and flexible arrangement of your joints, makes it possible for you to do things like rotate your ankles, flex and point your toes, walk, run, jump, and more. If you’re a ballerina, your feet move in such a way that you can stand on the tips of your toes (en pointe) and dance gracefully.

The 26 bones of the each foot consist of seven tarsal bones, five metatarsals, and 14 phalanges. Your foot can be divided into three sections: the hind foot, the mid foot, and the forefoot. The hind foot consists of the ankle joint (the talar joint) and the heel bone (the calcaneus). The joint formed by these two bones (the subtalar joint) is remarkable because of its unique flexibility. Your mid foot consists of five irregular bones called the tarsals, which together form your arch. Whether it’s high, low, or somewhere in between, your arch is what provides the spring in your step. Inside the peak of this arch are other bones (cuneiforms) and outside of the arch is the cuboid bone. Podiatrists refer to these mid foot bones as the lesser tarsus.

The forefoot contains five metatarsal bones, which are the bones leading up to each of your toes. The metatarsals bear the brunt of your weight as you walk, and transfer the pressure of your weight to the balls of your feet. In fact, the balls of your feet do 60 percent of your foot’s work. The arch connecting the central part of your foot to your toes is called the metatarsal arch. The smallest bones in your foot (the sesamoids) lie here, buried behind and beneath your big toe. Despite their minuscule size, these bones are important, serving as a pulley system that enables some of your muscles to move your foot up and down. (Technically, they increase the mechanical
advantage of your foot to lift your body and push your body forward. Another important bone that does this is your kneecap.) They help the big toe move, too. Because of their crucial role, people who have fractured or displaced one or both of their sesamoids experience acute pain and impaired movement.

Your toes are formally known as phalanges or digits, and are often referred to by number. Your big toe, for example, is number one, and you’ve got a number two, three, four, and five on each foot. Number two, three, four, and five each usually has three bones but the big toe has only two (besides the sesamoids.) Today the average fifth toe (also known as the little toe or pinky) is smaller than it was a century ago, possibly because its growth has been stunted because we’ve been squeezing it into too tight shoes.

**Sesamoiditis**
If you experience gradual pain under your big toe in the ball of the foot area, you may have sesamoiditis. Other symptoms include swelling, bruising, and pain when you move your big toe. You can treat sesamoiditis with over-the-counter pain relievers, rest, ice (massaging the foot with ice is really helpful), and shoe inserts that cushion the area. If symptoms don’t resolve, see your doctor. He or she may give you a steroid injection or immobilize the foot with a brace.

**Ligaments**
While the bones and muscles are partly responsible for your ability to walk and stabilize yourself, your ligaments also deserve much of the credit for this important task. The plantar fascia runs along your sole. Besides being the
longest ligament in your foot, it is considered to be the strongest in the entire body. It makes sense when you think about the work that it has to do.

When you are standing, your metatarsal arch flattens out slightly as it supports your weight and your plantar fascia is stretched just like a rubber band from your big toe to your heel. When you raise your foot off the ground, this ligament loosens and curves upward into your arch. When you step down again, it absorbs most of the downward pressure. The ligaments of the ankle are particularly vulnerable to injury. If they become torn or ruptured, they can take many months to heal. (For more information, see the Battered Ligaments Chapter.)

**Tendons**

The muscles of your feet are extremely important because they support the bony, complex devices that get you around. But equally as important as the muscles are the tendons that connect muscle to bone. Tendons can easily be ruptured and I’ve seen many patients frustrated by the time it takes for a tendon to heal. Sometimes surgical repair is required. The largest, strongest, and most well known tendon in your foot is the Achilles tendon, which attaches your heel bone to the muscle to give it mobility. Its name comes from the mythical Greek hero whose mother tried to make him invulnerable by dipping him into the river Styx when he was a baby. She could not let go of him completely while doing this and so she held him by his ankles, and that area remained vulnerable as a result. This story teaches a valuable lesson: this tendon is, in fact, very easily injured and can render you incapable of walking if it is seriously injured.
Statistics
The average American walks an estimated 75,000 miles by the time he or she turns 50 years old. Statisticians also tell us that American men walk seven miles each day on average, while women log up to ten miles. If you are a 130-pound woman, each stride you take puts about 500 pounds of pressure on your feet. As you walk you aren’t putting pressure on both feet at the same time. This means that, although they share the weight of your body at rest, each foot carries the burden of your whole weight with each step.

By now you understand how complex your feet are. But that very complexity increases the chance of something going wrong and causing you pain. Environmental factors add to your hazards. Your feet were not meant to walk on hard pavements, or be strapped inside stylish shoes with heels that can throw your weight onto a part of your foot that is not designed for such a burden. The ideal situation for your feet is to be barefoot on the yielding surface of a beach. Of course, a life strolling barefoot on sand is not an everyday reality for most people.

Falling, twisting, running, jumping, and standing incorrectly for years, as well as dropping objects on your feet and stubbing your toes repeatedly, can create foot problems. This general wear and tear, along with ordinary bruises, bumps, uncomfortable heels, unsupportive shoes (like flip flops and plastic rain boots), ill-fitting shoes, and nylon stockings, all make the work of walking much more difficult for your feet.
Beyond the normal stresses of movement, however, some of my patients have extra problems thanks to their genes. For instance, people who have inherited very wide feet invariably have difficulty finding shoes that fit properly, and, after years of squeezing their feet into ill-fitting narrow ones, end up with deformities. In such cases, I often see bunions, blisters, painful corns, abrasions, and small ulcers between toes that have been unable to lie flat inside shoes that are either too tight or too short, or both.

Another example of a predisposition for aching feet is the individual who inherits a high arch, also referred to as a cavus-type foot. In such patients, I have seen corns develop across the tops of the toes, sometimes at a very early age, tendons grow painfully tight thus prohibiting easy foot movement, and toes contract or become bent in unhealthy directions. Sometimes the balls of high-arched feet become so callused that it hurts to walk. Low-arched feet bring their own set of issues; you may develop a predisposition for bunions early in life, sometimes even before the bones are fully-grown.

To ease your aches and pains and learn to love your feet – and have them love you back–turn the page. The next part of this book will help you to identify your aches and pains, and to cure them as simply and as quickly as possible. And if the at-home treatments I suggest don’t soothe your soles, I also provide information on the latest treatments a foot specialist can offer. So read on. Your feet will thank you!
Shoe Museum
In Toronto, Canada, one of the top attractions is the Bata Shoe Museum. The collection of over 12,000 pairs of shoes includes historical footwear, from ancient Egyptian sandals and Chinese shoes made to accommodate women’s bound feet, to contemporary celebrity shoes. The exhibitions, which change regularly, have included subjects such as *The Rise of the Sneaker Culture*, *Beauty, Identity, Pride: Native North American Footwear*, and *Footwear Through the Ages.*
“Mighty Achilles, demigod, slayer of Hector at the gates of Troy, Homer’s greatest warrior in the Iliad, and invulnerable in all of his body...except his heel. Death by an arrow shot by Paris that struck him in his heel.”

–Everett M. Lautin, M.D.

Rebecca was a 38-year-old teacher who needed to lose weight. She wasn’t just 5 pounds above her ideal weight or trying to fit in a bikini for an upcoming vacation. She was bordering on obese, a condition that ran in her family. Her father was morbidly obese and her mother was not far behind him. Both parents had an array of health conditions, from diabetes to high cholesterol, all of which Rebecca wanted to avoid by slimming down. Part of her weight-loss plan was to exercise, so she began doing various forms of aerobic activities, including at least five days a week of running four miles. Although she started losing weight, she also noticed pain at the back of her right heel.

Determined to lose weight and extremely disciplined, she persisted. She hoped to “run through” the pain but it hurt too much. Her heel was so swollen that she found it hard to wear any type of shoe, and she could not lift her toes up toward the front of her leg without severe pain. Rebecca had Achilles tendonitis, an injury that is typical of “weekend warriors” who go from being sedentary to working out too often and/or too intensely.
When Rebecca came to me, I performed a diagnostic ultrasound, which showed a focal thickening, typical of Achilles tendonitis. (She was lucky that she was young because an older person with this injury could have torn their Achilles tendon, which, as noted earlier, is a serious problem that can require surgery.) Rebecca was devastated at the thought of not running. She had lost almost 20 pounds and was afraid that this injury would derail her efforts.

What is the Achilles tendon?
The Achilles tendon is the large tendon that connects your calf muscles to your heel bone. Actually three individual tendons, it serves two muscles in your leg, and is the largest tendon in your body.

What is Achilles tendonitis?
Inflammation of a tendon is called tendonitis, a condition linked to overuse and degeneration. But to understand this better, you need to know how tendons function. All tendons are elastic bands of tissue that attach muscle to bone. When a muscle contracts, the tendon pulls the bone towards the contracting muscle. Even though tendons are held in place by connective tissue bands, there is some latitude for slipping. A good example of this is the popping sound you hear when you crack your knuckles. The tendons are covered by a smooth tendon sheath, which allows the gliding motion over bone. Tendons have a poor blood supply and therefore heal very slowly when they are injured.

How do you get Achilles Tendonitis?
This condition is usually caused by some kind of significant, repetitive stress placed upon an inflexible lower leg. For this reason, I often see dancers and regular runners as well as novice marathoners and others who try to push themselves too far too fast. Dancers almost always rupture their Achilles tendons just above the site where the muscle attaches to the tendon just below the calf.

Among those more prone to this injury are women who wear high heels all the time and suddenly switch to flat shoes. The muscles in the back of their lower legs have been shortened from wearing high heels too often so that great force is put on the tendons when flats are worn. Simply keeping your lower leg muscles properly stretched can prevent this.

**What are the symptoms of Achilles Tendonitis?**

The number one symptom is pain. There may also be a slight swelling and the base of your heel may be painful to touch. Stair climbing can also cause pain. The tissue around the Achilles tendon where it inserts into the heel may appear reddish, and you may also hear the sound of two surfaces rubbing against each other when you move your ankle. Other symptoms include stiffness in this area, especially in the morning, thickening of the tendon, and a bone spur.

As in ligamentous injuries, there are varying degrees of damage. If you feel sharp pain in your calf, you may have a defect somewhere above your ankle area. If the tendon is mildly damaged, a first-degree case, you will find it difficult to rise up on your toes or walk on your heels. A second-degree case
involves partial tearing of the tendon away from the heel bone. In a third-degree injury, the tendon is completely torn away from the bone, and some muscles may be ruptured. Only surgery will correct such third-degree injuries. In second- and third-degree cases, the ability to walk from place to place is significantly impaired.

To see if you have Achilles tendonitis, ask yourself these questions:

- Are your symptoms worse after certain activities?
- Where does it hurt?
- Does the pain lessen with rest?
- Does the pain lessen when you are up on your toes?
- Does stair climbing cause pain?
- Are your shoes contributing to Achilles tendonitis?

Who is at risk for Achilles tendonitis?

Age and sex are both factors. As we get older, the Achilles tendon weakens as the result of a lifetime of repetitive motion. Middle-age men are more prone to this condition, as are people with naturally flat feet because lower arches will cause more strain to the Achilles tendon. Having tight calf muscles, high blood pressure, diabetes, or being overweight, also increases your risk of this kind of injury, as does cold weather. Running on uneven terrain, and medications like fluoroquinolones (such as Cipro) can make you more susceptible to Achilles tendonitis, or even a complete tear.

Injured Athletes
In 2010, soccer superstar David Beckham tore his Achilles tendon, requiring surgery and five months off the soccer field. As a result, he missed playing in the World Cup that year. When Kobe Bryant, the NBA’s fourth all-time leading scorer tore his, the injury kept him off the court for the remainder of the 2013 season and required months of rest and rehabilitation.

**What can you do about Achilles tendonitis?**

*At home:*
What you do in the first 24 hours after your injury or when you first feel pain is crucial. Typically, this condition can be treated at home with rest, ice, compression and elevation.

- Rest your leg and take a break from any workouts or other activities that cause more pain. You may need to wear a walking boot in order to reduce the pressure on the heel.
- Ice the tendon with an ice pack or bag of frozen peas or other vegetables. Apply ice for 20 minutes on and then 20 minutes off every few hours to reduce swelling.
- Compression with an ACE bandage or an elastic bandage for the first 24 hours is important. This will help minimize swelling.
- Elevate your foot above your heart. Your heel can also be elevated in your shoe with an insert or “lift” of felt or foam to reduce stress on the back of the leg and the Achilles tendon.
- Non-steroidal anti-inflammatory medications like ibuprofen and naproxen can alleviate pain and swelling in the short term, as can something as simple as a heel lift.
At your doctor’s office

For more serious cases, it’s time to see a doctor. Initial treatments for all three degrees of injury include those discussed above for the first 24 to 48 hours. Several different tests can be done at your doctor’s office. An MRI scan can give the most accurate diagnosis of Achilles tendonitis, but x-rays, CT scan, and ultrasounds are also used.

Complete immobilization and sometimes surgery may be required. The foot may have to be immobilized for eight weeks, sometimes more. Your doctor may apply heel lifts and strap your foot with the toes pointed downward and the heel off the ground. When there is a lot of swelling of the tendon sheath, the injection of a steroid into the swollen area can be helpful. The use of steroids is somewhat controversial, but sometimes they can help, particularly if there is a chance the Achilles tendon will be scarred. Your physician also may place your foot in a flexible cast to eliminate some of the swelling and to reduce movement around the Achilles tendon insertion.

With a first-degree injury, you will be able to walk after about 48 hours, and will have little pain. However, running, dancing, or any kind of strenuous exercise will be virtually impossible for some time. A second-degree injury takes anywhere from six to eight weeks to heal, and an additional three to four weeks for stretching exercises to have an effect before you can get back to your normal activities.

If your pain persists after the initial treatments, ibuprofen (like Advil, or Motrin) or naproxen (like Aleve) can help, as can physical therapy exercises, stretching, and strengthening the calf muscles. Orthotics, shoe inserts
custom-made for your feet, can take pressure off of the Achilles tendon. One of the most cutting-edge treatments for Achilles tendonitis is the injection of platelet rich plasma, known as PRP. A small amount of the patient’s own blood is placed in a centrifuge, and the platelet enriched portion extracted, and then the PRP is injected into the Achilles tendon. These platelets release growth factors, which accelerate tissue healing and repair. PRP treatment may be covered by insurance.

Another high-tech treatment is shockwave therapy. In this FDA-approved procedure, a machine is used to send shockwave impulses into the damaged tissue of the tendon. It sounds shocking, but is only painful for about a quarter of a second each time it goes over a trigger point. The machine generates a rapid pulse of mechanical energy into the tissue, which very rapidly moves the tissue a tiny fraction of a millimeter. This helps to break up adhesions and stimulate blood flow to the area. Most people feel better after one treatment, and their condition really improves with multiple treatments (conducted a few weeks apart.)

The injection of amniotic tissue is one of the most cutting-edge treatments used for Achilles tendonitis, hallux limitus, and plantar fasciitis. These injections work best in injuries that are less than a year old and may help reduce inflammation, speed up the normal healing process, and reduce the formation of scar tissue. (Injections of amniotic tissue are also being used for treating “golfer’s elbow,” biceps and triceps tendonitis, and injuries of the shoulder joint.). AmnioFix® Injectable consists of micronized, human, amniotic tissue, which contains growth factors that are only found in amniotic tissue and cytokines (proteins that are like messengers between
cells). Though more research needs to be done, this new treatment seems very promising.

If conservative treatments are unsuccessful, then surgery may be a last resort.

How to avoid Achilles tendonitis?
The best way to avoid this injury is to keep your body limber, and to do a regular stretching program for this and other parts of the body. This will increase the flexibility of muscles, ligaments, and tendons and help to prevent future injuries. When you exercise, especially if doing a new activity, begin gradually. If you have stopped exercising for a few weeks or more, resume gradually. Avoid being a weekend warrior. It’s a good idea to cross-train as part of your regular exercise routine, so that you’re not constantly putting pressure on the same area of the foot. For example, if you like to walk, try swimming for some of your workouts. If you like to run, try cycling for a few of your workouts. Cross training benefits also include better conditioning of more muscle groups as well as decreasing the likelihood of repetitive stress injury.

A Personal Trainer’s Tips for your Achilles Tendon

Note: The following comments and tips are from fitness expert Vinnie Laspina (ISSA), co-founder/owner of The Fitness Office, a private personal-training facility in Manhattan, along with Joe Burt, (ACSM), founder/CEO of Transcend Fitness, which specializes in whole-body transformations.
The most common causes of Achilles tendonitis are over-pronation (the ankle and foot fall/strike inward toward the body) and a lack of flexibility. By addressing these causes, you can take preventative measures to avoid tendonitis. If Achilles tendonitis is already present, these exercises are best introduced after a period of rest and a course of anti-inflammatories.

To address lack of flexibility in the lower leg, and specifically the ankle joint, you always start with the muscles of the foot and calf because these tend to be very tight in most people. From people who sit behind desks all day to women sporting high heels to professional dancers, these muscles can shorten and thus place undue stress on the joints in the leg, which can compromise the knees, hips, and subsequently the lower back.

**Self-myofascial release (SMR)**

You start by releasing the tight muscle using a technique known as self-myofascial release (SMR). This is done using a SMR tool like a roller (available online, at most sporting goods stores and mass merchandisers) or even something like a tennis ball. You use it to apply your own body weight up and down the muscle to break up *trigger points* (a.k.a. knots) and to improve blood flow and tissue quality.

- Sit on the ground, extend one leg and place a foam roller (or softball) on the ground and position it under the middle of the calf. Place the ankle of the opposite leg on top of the ankle of the extended leg.
- Put your hands on the ground behind you and slowly roll the foam roller or ball along the entire calf area (back of ankle to the just below the back of the knee). Pause *directly on* the tenderest spots for 30-90 seconds, or until the tenderness has subsided. Repeat with the opposite