

How Orthotics Can Keep You Running Longer

Foot, ankle or knee pain? You may need new sneakers, inserts or orthotics.

by Sandra E. Lamb, **AARP**, August 4, 2020



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En español | If you're feeling your daily jogs or runs in your feet, calves or knees more than you used to, it may be time for a footwear tweak. As you approach 50, gradual changes like the diminishing fat cushion in the balls of feet can add up to [palpable aches and pain](#), says Paul Langer, a podiatrist who specializes in sports medicine at Twin Cities Orthopedics in Minneapolis.

Along with the shrinking of this plantar fat pad, the natural loss of foot and leg elasticity — combined with the repeated pounding of 1,000 to 1,500 steps each running mile — can result in a variety of foot and lower extremity problems. They include [plantar fasciitis](#), which causes heel pain; Achilles tendinitis in the tendon that connects the calf

muscle to the heel bone; arthritis in the big-toe joint; and metatarsalgia of the forefoot, which causes pain in the ball of the foot.

The good news? Proper [temporary orthotics](#) can ease or eliminate pain from most of these problems, and they can also help those whose lifelong flat feet or high arches start to create later-in-life aches. Permanent in-shoe aids can also help runners who have body irregularities, like one leg being longer than the other.

Finding the right fit for you

That said, finding the right insert may take a little trial and error. “I always tell my patients that prescribing orthotics isn't like prescribing medication,” Langer says. “We don't know the right dosage, and that's partly because we can't tell when the patient is comfortable. And we don't know what kind of pressure relief or correction is needed to make someone's pain go away.” He adds, “Each person is very individual, as far as how they might respond to footwear changes, or what we call ‘biomechanical intervention.’”

To get started, you'll want to visit a podiatrist — ideally one practicing sports medicine. The American Podiatric Medical Association (apma.org) website lists podiatrists who are also members of the American Academy of Podiatric Sports Medicine. Take your current pair of running shoes and socks to your first appointment. A study done in Australia pointed out that between 68 and 78 percent of the population are wearing shoes that don't fit them properly. A podiatrist can check yours to see if they are the right fit for your feet, notes Kathleen Stone, a podiatrist and former APMA president.

What a pressure mat can tell you

From there, diagnosing runners' foot problems has become much easier and more accurate with the computerized pressure mat, which most sports podiatrists are now using to check their patients' barefoot walking gait and running gait — both shoeless and in their running shoes.

Movement patterns, Langer says, “are as unique as our signature.” Our bodies are programmed to move in a way that is most metabolically efficient and least painful. Changing a patient's natural running pattern isn't practical for older runners, experts agree. “I've had lots of patients come in with metatarsal tissue issues, or stress fractures, because they changed their running form,” Langer says. “Sometimes I use the computerized pressure mat to help educate my patients about why and when they are having pain.”

Tips for Avoiding Running Injuries

Smart steps to take to save your feet

Get the right shoes.

Use the foot scanner at a good running shoe store to get an accurate size and shoe type. From there, try on several pairs and choose what feels most comfortable. Also consider buying two pairs: Research indicates that alternating running shoes on a regular basis helps to avoid injuries.

Stretch — and strengthen.

While both strength training and post-run stretching are important for runners, strength training can be more critical for avoiding injury, Langer says. Achilles tendinitis, one of the most common injuries for runners over 40, for instance, can be cured in six to eight weeks by doing eccentric calf raises or Achilles tendon exercises, which also improve elasticity.

Both Langer and Stone stress the importance of using as little correction as will make the patient comfortable. “I rarely use [custom] orthotics as a starting point,” Langer says, “and I rarely use them by themselves.”

Sometimes a new sneaker is all that's needed. Trying on different types of shoes, then analyzing the foot strike on the pressure mat, can help identify issue-solving styles, Langer says. A stiffer shoe, for example, stabilizes the midfoot best, taking some pressure off an arthritic big-toe joint.

Moving up to OTC inserts or orthotics

While flat-footed and high-arched patients usually benefit from custom-made orthotics worn in their running shoes, temporary, over-the-counter (OTC) shoe inserts can often solve other problems. Langer says he classifies solutions into short-term, medium-term and long-term (or permanent). There's research, for example, indicating OTC insoles can reduce the strain on the plantar fascia by 25 to 35 percent. And treatment for this problem is usually short-term.

Arthritis, on the other hand, is a lifelong condition that may get worse over time. So the [arthritic patient](#) may need both a more structured shoe and custom orthotics to help reduce pain and improve function. Studies have shown that 67 percent of those with arthritis have less pain in a more structured shoe that has a forefoot rocker. Hoka One One and New Balance, among other brands, both have shoes with this feature.



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For most, the first visit to the podiatrist will typically result in the doctor prescribing an OTC pad or shoe insert for the patient to use for two to four weeks. On the return visit, a medium-term or long-term solution may be prescribed, along with exercises for the patient to do at home. For some, physical therapy will also be scheduled.

Cost of custom orthotics

If you do advance to custom orthotics, expect them to cost anywhere from \$250 to \$600, and occasionally as high as \$1,000. (OTC shoe inserts, available at most pharmacies, will run you about \$40.) The best method of getting a proper fit is by use of the physician's computer foot imager, or as Stone uses, X-rays of the feet.

Insurance reimbursement is rare, except for people with [diabetes neuropathy](#). The life of custom orthotics can range anywhere from six months to 20 years, depending on the type of material they are made from; but many orthotics can be repaired. At least once a year, runners should be reevaluated by their podiatrist.