

Weekend Doctor

By **DR. THOMAS F. VAIL**

Read your footprints and discover how you roll!

Like a good detective story, your bare footprints can leave clues to your foot health and drop hints about possible problems.

Before we crack the barefoot code, here's a quick course on walking patterns.

- The heel usually hits the ground first.
- As the foot moves forward, the arch flattens and weight is transferred to the ball of the foot.
- As you push off from the ball of the foot, the arch springs upward and does not touch the ground.

At least that's how normal feet are supposed to work. Unfortunately, many feet aren't normal.

In normal feet, this movement is straight.

If the foot rolls to the inside, it's called "overpronation" and can strain the arch and hurt the knee.

If the foot rolls to the outside, it's called "underpronation" and can lead to stress fractures and ankle sprains.

Now, wet your bare feet, take a walk, and look at your footprints.

If you see a large, oblong wet mark with toe prints and little or no dry, curved-in arch area, then you're overpronating or have flat feet.

If there's little connection between the heel and front part of the foot, like a big dry area in the middle, it's likely you are underpronating or have a high arch. This means a lot of your weight is landing on the outside edge of your foot.

Athletic shoes with stability features are built with extra cushioning to remedy this problem. If you are prone to ankle sprains, wear high-top athletic shoes that cover the foot and ankle snugly to minimize damage from twists.

Custom-molded arch supports will correct your abnormal or irregular walking pattern.

In fact, the use of foot orthotics is quite common and is often compared to using eyeglasses. Just as eyeglasses correct your vision, orthotics bring your feet back into the correct position and help the alignment of your body.

Custom-molded orthotics are made from a cast of the foot or new 3-D imaging of the foot. With 3-D digital scanning of your foot, podiatrists are able to get a more accurate custom orthotic without all the mess of plaster casting.

Do not be deceived by the "custom fit" orthotic stations in retail stores. Their scans only show how your weight is distributed based on a pressure scan. Then, an off-the-shelf, pre-fabricated orthotic is either suggested or mailed to you.

True 3-D imaging of your foot creates a multi-dimensional digital image, which is used to fabricate a custom orthotic that is specific to your individual needs, including marking trouble spots for padding, pockets and other accommodations.

Anyone can make use of foot orthotics, even those who have no major foot problems. This is because orthotics can also be used to improve foot performance, which can be useful for people who stand and move a lot like dancers and athletes.

Once you see how you "roll," talk with your podiatrist about custom-molded arch supports and footwear choices to reduce the potential damage from a rolling gait.



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