The Art of Walking

BY GINA ROBERTS-GREY

From heel to toe, we explain how to put your best foot forward.

You take thousands of steps every day—even on those days you spend bingewatching *Orange Is the New Black*. But if each stride doesn't strike the pavement properly, you won't tap into the full toning benefits of your walk. And you could be on pace to become one of the three in four American adults who have experienced foot pain in their lifetime. It's time to bone up on your stride!

WALK THIS WAY

Twenty-six bones (and their corresponding tendons) all have specific roles in your foot strike. Unfortunately, if your stride doesn't follow the pattern below, it may be too late to retrain your gait. But it's always a good time to talk to your doctor about orthotics or other solutions.

- → First, your heel makes contact with the ground while your toes come up to prevent your foot from hitting the floor too hard.
- → Next, the outside of your midfoot makes contact with the ground to keep you level as your weight transfers from the heel to the toe area. Your foot quickly switches from being a stiff lever to flexible mode in order to keep you balanced even when walking on uneven surfaces like sand or rocks.
- → Finally, your forefoot (aka your little piggies) takes control. As your toes come in contact with the ground, they push you off so that your other foot can keep your activity tracker happy.



If your bare footprint shows an outline of your entire foot, that could be a sign of pain to come. It means your **arch** is collapsing (leaving your foot struggling to hold you up) and could cause tendinitis from the arch to the ankle, says Jacob Wynes, DPM.

Ouch! Why does that hurt?

Wondering what's causing that callous, cramp or tender spot? While physical therapy, properly fitting shoes or orthotics may be the solution, we found the source of your problem.

"Muscle tension that can travel up through your lower leg may be a result of not walking all the way through your **big toe**," explains agility expert Mary Derbyshire. Bearing one-third of your weight with each step—twice as much as the other toes—your big toe keeps you balanced. When used to its fullest potential, it also propels you forward.

callouses on the outside border of your foot are a sign that area is shouldering more weight than it should, explains Pedro Cosculluela, MD. Over time, this can lead to pain that radiates up through the foot and ankle.

Crusty, dry skin or

Wearing down the inside heel of your shoes means you're prone to tendinitis in the arch of your foot, says Casey Ann Pidich, DPM. "If the outside heel is more worn, you may be prone to tendinitis on the outer parts of your foot and leg pain or joint pain in your knees."

OUR EXPERTS John T. Campbell, MD, director of research, The Institute for Foot and Ankle Reconstruction at Mercy in Baltimore. Dorothy Cohee, PT, physical therapist at Athletico in Chicago. Pedro Cosculluela, MD, an orthopedic surgeon at Houston Methodist Hospital. Mary Derbyshire, author of *Agility at Any Age* and an instructor in the Alexander Technique. Casey Ann Pidich, DPM, an associate podiatrist at Downtown Podiatric Care in Manhattan. Jacob Wynes, DPM, a podiatrist and an assistant professor of orthopedics at the University of Maryland School of Medicine.



3 Ways to Avoid Pain

1 Loosen up.

Prevent heel and arch aches by getting limber daily. Hold the edge of a counter or a table and do 10 to 15 heel raises. "Slowly rise up on your toes and lower back down until heels are on the ground," says physical therapist Dorothy Cohee. Then keep heels on the floor and lift both sets of toes up 10 to 15 times.

2 Swing 'em.

Moving the arm opposite the leg that's traveling forward (called cross-patterning) coordinates the muscles in your spine, allowing for proper support of your lower back, says trainer Mary Derbyshire. "We're designed to move all four limbs when walking. You'll burn more calories too!"

3 Grasp it.

Your bath mat or post-shower towel can dry up the chances you'll suffer from plantar fasciitis. Lay it flat on the ground and try to grab or scrunch it with your toes. Or multitask and do this with a towel while sitting at your computer or watching TV, suggests Jacob Wynes, DPM.



