

Size Matters When Selecting Shoes – Asymmetrical Foot Size

Damien Howell MS, PT, OCS



The way shoe manufacturers size their shoes varies greatly, not only between U.S. standards and European standards, but also between two different factories making a shoe model by the same manufacturer.

Much like women's dress sizing, there is neither a universally standard method of sizing shoes, nor any agency to assure that companies comply with whatever standards they choose. This, of course, is frustrating. The take-home message is that to find the most appropriately sized shoes, you must first try them on.

One thing shoe manufacturers are consistent about is making sure the size of the right shoe matches the size of the left, and they do quality assurance testing to assure symmetry. Ninety-nine percent of the time, the length and width of the right shoe will match that of the left shoe. However, this too can be frustrating if you are one of the unfortunate individuals with different-sized feet. I have not found published data documenting the incidence of asymmetrical foot size, but as a clinician I frequently see individuals who have had injuries and who also have different-sized feet.

Accounting for differences in foot size

There are several explanations for having one foot that is larger than the other such as being born with different-sized feet or having a history of an injured joint, particularly the area of the bone called the growth plate. An injury (sprain or fracture) to the growth plate during childhood typically results in a "stunting," or significant decrease in bone growth.

Measuring the length and width of the foot is accomplished with a "shoe ruler," or Brannock foot-measuring device. Another way to determine whether your feet are symmetrical is to stand with your heels flat against the wall. With feet and toes together, check to see if the feet and toes are of equal length.

Problems caused by having different-sized feet

Asymmetrical foot size can lead to a variety of problems. The larger foot is at increased risk for problems including blisters under the toenails, ingrown nails, pinched nerves and toe deformities. In my experience, the smaller foot is at increased risk of developing tendonitis (Achilles, knee), plantar fasciitis and hip pain on the side of the small foot and blisters from excessive slippage and movement that occurs from wearing a shoe that is too big.

There is evidence that selecting a larger size shoe does not increase the risk of overuse injuries.

When the feet are of unequal size, the most common problem is finding shoes that fit. Among shoe salespersons, the general consensus is to select a shoe that is a half-size larger than the measured foot size; if feet are different size, the consensus is then to select a shoe size that fits the larger foot. If you select a shoe size that is a half-size larger than the larger foot, there are things that can be done to the shoe for the smaller foot, like wearing two socks, pulling the shoe laces snugger and applying mole skin on the tongue of the shoe and/or around the heel counter to fill in the extra space.

There is evidence that selecting a larger size shoe does not increase the risk of overuse injuries. One research study reported that the Israeli Army does not provide wide- or narrow width boots, but only boots of medium width; thus, any recruit who needs a wider boot for basic training is instead given a longer one. The study showed that this compensation did not increase the risk of overuse injuries in this group compared to individuals whose boots were sized correctly. (This investigation did not report whether the recruits had asymmetrical foot size.)

Choosing the right pair

Contrary to the common recommendation of selecting shoes to fit the larger foot, I believe some individuals may benefit from shoes that are an appropriate fit for the smaller foot. In my experience, the problems that occur are most often on the side of the body with the smaller foot. These problems are more functionally debilitating (tendonitis, joint pains), than the toe problems that occur from fitting a larger foot with a shoe considered too small. If the smaller foot has an appropriately fitting shoe, it has a firm, stable platform to push on. Of course, selecting a shoe size to fit the smaller foot puts the larger foot at risk, but there are strategies to deal with this problem, too. Among these are keeping the shoe laces looser, using a thinner sock, using a shoe stretcher, cutting holes in the shoe upper to allow toes to poke out and keeping the toe nails trimmed.

Many of today's everyday shoes do not have laces and have an open back and/or open toe style. In this case, it makes more sense to select a shoe which fits the smaller foot rather than the larger foot. The vamp of the shoe and/or straps is what holds the shoe on the foot. If you select a shoe which matches the larger foot, it is quite likely the straps will not hold the shoe on the smaller foot effectively.

So in a word, yes, when it comes to shoes and feet, size matters.