

# Fitting the Female Foot



By Paul Langer, DPM

Women are the driving force behind the growth of endurance running over the last few years so it is important that we understand some of the differences between men and women when it comes to footwear. Especially when women buy more shoes than men.

Most experienced female runners have learned that their running shoes need to have more toe room than other shoes. They understand that their feet swell when they run and that a good running shoe fits snugly in the heel and arch but allows room for the toes. I always tell runners and walkers that the shoe should fit snug only in the back two thirds and should be roomy in the toes. I emphasize that they need about half a thumb width of toe room if training/racing up to half marathon distance and a full thumb width if doing marathon distance. Many newer female runners find the concept of wiggle room for the toes to be so foreign feeling that they refuse to believe that that is how a running shoe (or walking shoe) is supposed to fit. Newer marathon runners especially don't like to be told that the longer distance they run, the more toe room they need.

Anatomically and biomechanically, there are significant differences between men and women. Women have shorter legs (as a ratio of total height), wider hips, more valgus alignment of the knees ("knock knees" or higher "Q" angle), smaller bones and joints, less muscle mass, narrower feet and their malleoli (ankle bones) are lower. They are also more likely to develop foot deformities such as bunions. These differences mean that women take more strides per mile, are more prone to knee injuries and often have more trouble finding shoes that fit well than their male counterparts. Some studies also suggest that women are more likely to overpronate than men.

In addition to physical differences, men and women also have different expectations and attitudes toward footwear. For example, cultural definitions of beauty affect women's footwear choices. In our culture, small feet and long legs are part of the ideal of feminine beauty, which is why high heeled shoes are so popular despite their discomfort. Because of these cultural expectations, many women have become accustomed to wearing the smallest possible shoe they can fit their foot into. This might explain why a survey of women by orthopaedic surgeon Carol Frey M.D. and her colleagues in 1993 found that 59% of women wore shoes that hurt their feet on a daily basis. This might also explain why I have found that many women underestimate their shoe size or foot shape.

Many times I have had female patients insist to me that they had a narrow foot until I measured them and explained that a "D" or 2E" width is not narrow. Other times I have had patients who insisted that they were a "true size 7" which tells me that they are focused so intently on a number that they don't understand that there is no such thing as a true size and certainly not every shoe fits their feet exactly the same. Many women have become so accustomed to extremely tight shoes that they are convinced that a shoe that has been properly fit is too big. I have spent countless hours both in clinic and in the store explaining to many females that their concept of a good fit is not healthy and will lead to pain, foot deformities and injuries, if it hasn't already. Ninety percent of bunion surgeries performed in the U.S. are done on women and we know that women's fashion footwear choices are a significant contributing factor.

I have found that runners or walkers who are new to their sports tend to be the hardest to convince when it comes to moving up to a larger size. My approach with a female customer who is resistant to trying on a larger size is to cite Dr. Frey's study, which also found that 88% of women were wearing shoes that were too small. And

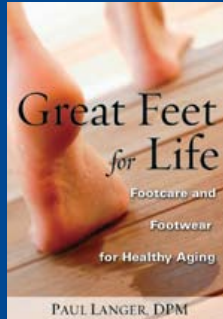
in most cases the shoes were not only too short, but also too narrow. In fact, the average woman was wearing shoes that were a quarter of an inch too narrow (equivalent to a full width size). If I am fitting a customer who already has foot pain or a deformity, I explain to them that it is unrealistic to expect their problem to improve if they insist on wearing shoes that do not fit properly.

For a patient who I think needs a full size longer but refuses to go there, I often propose that she just go up half a size today and then consider another half size for her next shoe if she is not comfortable. This usually is an acceptable compromise to many female runners and once they experience the improved comfort of the larger size they are often more open to the idea. If she needs additional forefoot width, first I might try a shoe with a rounder toe box or maybe one of the Saucony or adidas models which often have a roomier fit in the forefoot before I suggest a wider size.

Of course working with a female customer who may be sensitive about how we characterize her feet requires a certain amount of diplomacy. Always be discreet when talking around other customers or staff about someone's foot type, foot shape or size. Some customers are self conscious about even taking off their shoes in public let alone talking out loud about them. I never accuse someone of wearing the wrong size shoe, but instead gently explain the benefits of shoes with a roomier fit and how they will benefit from them. Some women will be downright offended if you even suggest that they need a bigger shoe so be careful how you choose your words. Instead of

saying something like "your foot is too big for this shoe" or "your shoes are too small," I might say "I think you would feel more comfortable if we went up half a size."

My overall approach with fitting female patients in running and walking shoes is to emphasize to them that I can help them find the size and model that has a healthy amount of toe length and forefoot width, while maintaining a snug midfoot and heel. I only use the size as a ballpark figure starting point and then make changes once I can assess how their feet fit in the shoes and how the shoes feel as they run and/or walk. To me, the size on the shoe is irrelevant as long as it fits well and is appropriate for the foot type.



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