

Women move differently than men. That much is obvious. So why is it that most women runners log their miles in shoes designed for the opposite sex?

Over the years, running shoes have undergone tremendous technological advances, based on studies of human biomechanics. Unfortunately, the "humans" studied were mostly male, which is too bad for women because their biomechanics differ from men's in at least three significant ways.

The most important difference is that a woman's pelvis is broader than a man's. This means the angle from a woman's hip to her knee is greater than it is for a man. This exaggerated angle, referred to as the Q-angle (quadriceps angle), causes women to strike the ground on the outside of their feet. As a result, women experience lots of wear along the outside edges of their shoes.

Women runners also have a greater range of pronation (when the foot rolls inward on impact) than men. This is because women compensate for landing on the outside of the foot by rolling in more as they move from heel-strike through toe-off.

And, of course, there's size: Women are smaller and lighter than men, which means they can't compress the firm midsoles of some running shoes. Women also have narrower heels, making it difficult to find shoes that fit properly.

What's a woman to do? Look for a shoe with support along the outside of the foot for durability, good rear-foot and arch support to slow pronation, and a secure-fitting heel. And if you're under 150 pounds, stick with cushioned or stability shoes, which have midsoles that are easier to compress than most motion-control shoes.

To help you find the perfect shoe, we sent four models with women-friendly design qualities to the RW Shoe Lab.