

A Step Forward?

Shoes for midfoot-strikers offer mixed results.

By Martyn Shorten, Ph.D.

While most runners land on their heels, a small percentage of biomechanically blessed runners land on the middle of their feet—and their ranks are growing through alternative training methods such as Chi Running and the Pose Method. Two new shoes, the New Balance 800 and the Newton Gravity, were designed to address the needs of these runners, and to help others train themselves to land farther forward. While not for everyone, forward-landing (or midfoot-striking) spreads the force of impact across the heel and forefoot simultaneously, similar to how a bare foot works naturally. This can help strengthen the lower legs, leading to increased stamina and fewer injuries. We put both shoes on nine runners and tested them at the RW Shoe Lab. Both models feature lower heels to help the forefoot make contact with the ground before or at the same time as the back of the foot, but that's where their similarity ends.

The Gravity made our testers think about their running form, whether they wanted to or not. Its forefoot absorbs impact with a rubber membrane that compresses as the taller-than-usual outsole lugs come into contact with the ground. The resulting cushioning is similar to other lightweight training shoes. Unfortunately, this design also makes the Gravity a bit rigid, because the shoe's midsole doesn't bend effectively with the foot as it flexes through toe-off. Our testers found the shoe's forefoot awkward, but some liked how this sensation got them up on their toes.

The 800 offers a softer heel and firmer forefoot cushioning than the Gravity. The shoe features a soft foam bridge along the outside of the midfoot designed to aid cushioning and ease the foot's transition through the gait cycle. While this design improves the shoe's overall stability, we found that the insert doesn't extend back into the heel far enough to fully absorb impact forces. Some testers noted how this resulted in an odd ride.

It's great to see shoes created specifically for midfoot-strikers—a previously overlooked group of runners. But, as is often the case with pioneering products, there is some room for improvement. We look forward to seeing how this new breed of shoe evolves.

Newton Gravity



Price: \$175

Weight: 9.9 oz (M) 8.2 oz (W)

Contact: 877-860-7695

[More Newton Running Shoes](#)

We Say: The Gravity's stiff but cushioned forefoot and low-to-the-ground heel require a lot of training to properly run in.

New Balance 800



Price: \$120

Weight: 10 oz (M) 9 oz (W)

Contact: 800-253-7463

[More New Balance Running Shoes](#)

We Say: The 800's low heel and cushioning along the outside of the midfoot help midfoot-strikers but result in an unusual ride.

Under Pressure



The red patches to the left illustrate the peak pressure areas for heel and midfoot-strikers. The pressure pattern of midfoot-strikers (right picture) highlights their need for better forefoot cushioning, while the heel-strike pattern (left picture) shows a need for substantial heel cushioning.