

Your Sneakers Might Be Undermining Your Strength and Stability

6 MIN READ

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The science behind what your shoes are doing to your body and how to find the right sneaker for your needs.

It seems like everyone has an opinion on minimalist and maximalist footwear, but what does the research say?

If you go to the gym or a local 5k, you'll see a staggering variety of shoes. Most often, you'll see people in typical running shoes—cushioned, supportive, sporty shoes that look very familiar.

But if you pay closer attention, you'll notice many sub-types of athletic shoes. Minimalist and maximalist running shoes are two popular options.

And they're quite divisive. People have opinions. And companies promise that both types of shoe can help you stay injury-free, fostering an active and healthy lifestyle.

But can they really do that? And is one better than the other?

A reader recently sent us a message about footwear choices, so we thought we'd dig into the science behind making the right shoe choice to support your activities.

(It's worth noting that most of the research we'll discuss pertains to running, but keep reading and we'll talk about shoe choices for other activities, too.)

Which Type of Shoe Are You

Wearing?

Let's start with minimalist and maximalist shoes: what, exactly, are they?

While there's no specific definition of either, these terms mostly describe the amount of cushioning the shoe has:

- ■ **Minimalist shoes** have very little padding, not much support, and tend to be extremely light. You may have heard of brands like Xero, Flux, or Vibram. These are often also called “barefoot shoes.”
- ■ **Maximalist shoes** have a lot of padding and support. The cushion under the sole of the shoe might be an inch thick or more. HOKA is a popular brand, but many traditional running shoe brands have released maximalist shoes, too.

Both types of shoe take different approaches to injury prevention and movement mechanics.

Minimal shoes aim to promote natural foot movement and cushioning. Our feet are made to support us while we're being active, the thinking goes, so let's get shoes out of the way to let our feet do what they're naturally good at. They're popular in many types of activity, though they've become less common in the running scene.

On the other hand, maximal shoes are designed to provide maximum cushion and comfort, especially for running. They guide your foot into the proper motion for running, ideally correcting any poor movement patterns. The idea is to reduce the chances of injury from overuse.

That all seems pretty intuitive. But is it backed up by science?

Do Your Shoes Prevent Injury?

Research on different types of shoes is equivocal.

A **2014 study**, for example, concluded that “Running in minimalist footwear appears to increase the likelihood of experiencing an injury, with full minimalist designs specifically increasing pain at the shin and calf.”

Another study, however, showed that just wearing minimalist shoes for everyday activities led to significant increases in foot strength, which could help prevent injuries.

Dr. JJ Hannigan, co-director of the FORCE Laboratory at Oregon State University, points out that “running in minimal shoes often strengthens the intrinsic muscles of the foot and offloads some force at the knee, while increasing the risk of developing a calf or Achilles injury, or a stress fracture at the foot.”

Studies on maximalist shoes are similarly inconclusive.

Increased padding in maximalist shoes can help **reduce the forces absorbed by your foot**, but these shoes have been shown to actually ***increase joint loading*** compared to conventional running shoes.

“Maximal shoes are good for those with mobility problems (limited ankle motion) but they do increase stress in the knees and hips,” says Dr. Matt Klein, professor Physical Therapy and founder of **Doctors of Running**. “The additional cushioning does NOT provide more protection, despite the claims.”

How to Choose the Right Sneaker for Your Needs

Research shows that both barefoot and highly cushioned shoes have benefits, but may also increase your chances of injury. And, of course, there are other kinds of shoes, like regular running shoes, walking shoes, hiking boots, gym shoes, and all manner of other footwear.

In general, using a shoe that's tailored for the activity you're taking part in will give you the best results. A maximalist running shoe might be great for running with limited ankle mobility, but the unstable base won't help you in the gym. A minimalist gym shoe gives you great feedback when you're lifting weights, but won't protect your foot enough for a hike.

Dr. Hannigan recommends a simple way to find what works best for you: "Heading to your local footwear store and finding the shoe that feels best underfoot can be a simple but effective way to reduce foot pain and improve long-term foot health."

Dr. Klein says, "The obvious answer is spending time in different footwear if you have the abilities and finances to do so."

Both experts we talked to did emphasize one point, though: taking time to get used to the new shoes. Whether you're going minimal or maximal, take it slow. Start wearing them for short periods, then gradually increase the time you wear them.

Get Started Choosing the Right Shoe for You

Not sure where to get started on your footwear journey?

Here's a quick way to get an idea of what kind of shoe you may want to start with:

- ■ **Are you using the shoe for running?** If you are, start with a traditional running shoe. Get a gait analysis at a local running store and go with one of their recommendations. Try a few shoes to see which feel the best.
 - ■ **Do your feet hurt when you run?** If you feel like your feet are taking too much impact, you could consider trying a maximal shoe. Just make sure to ease into it.
- ■ **Are you using the shoe for working out in the gym?** Start with a training shoe, then consider moving to a more minimal training shoe (they're great for helping enforce proper form).

- **Are you using the shoe for everyday activities?** Just about anything will work—but a minimalist shoe will help you build foot strength while you’re going about your day. A maximalist running shoe will be overkill and may make you less stable.
- ■ **Are you considering other activities?** If you’re hiking, **playing tennis**, cycling, or doing something else, consider getting a shoe that’s made for that activity. If you don’t want to commit to another shoe, consider a traditional or lightweight running shoe.

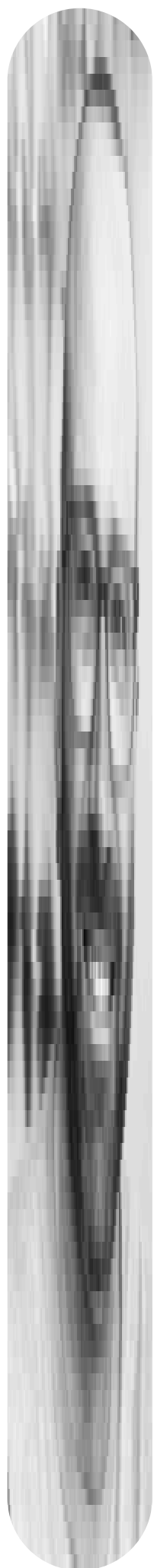
As a reminder, be sure to ramp up your time in your new shoes slowly, no matter what you decide on.

Finding the right shoes can be a bit of a process, but it’s absolutely worth it if you’re looking to be active and healthy at any age. Take the time to find the right footwear to stay comfortable and injury-resistant so you can keep doing the things that bring you joy, and keep you moving.

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