

Wearing Curved Shoes Can Weaken Your Foot Muscles, Study Shows

A new study has shown that curved toed shoes may weaken the muscles in your toes and feet, leading to common foot problems like plantar fasciitis. Stress develops strength in your body's muscles. Similar to the way stress develops strong muscles in the gym, studies show running barefoot develops strong muscles in the feet. When we remove these sources of stress, our bodies don't adapt in the same way.

While curved toe running shoes may make it easier or more comfortable for us to move, a new study has shown that we pay for comfort in the long run by developing weaker foot muscles. These weaker foot muscles can, in turn, cause knee and foot problems.

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Our toes were designed to bend backward while we lift our bodies forward and upwards. Curved toe shoes make this more difficult, and while they're designed to remove some of the effort from moving our feet, this has shown to not be good long term.

Our toes, which are shorter than our ape-like ancestors, help us use less energy when walking and running. There is less muscle work required to stabilise and control the movement of smaller toes.

Curved shoe tips make it easier to move – but research suggests they may also weaken foot muscles

Researchers gathered results from 13 healthy adults who always wear shoes. They had each participant walk in four different

types of sandals with the curve of the shoe set at 10, 20, 30, and 40-degree angles. Researchers then measured the movement of participants toe joints and compared the measurements to when they walked barefoot. The numbers showed that the range of movement in the toes decreased as with the increase of the toe spring angle, and consequently, the total amount of work required at the joints also decreased.

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The plantar fascia is a long and broad elastic tissue that runs the length of the sole of your foot. It becomes injured from repetitive strain associated with constant deformation of the arch.

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The job of foot muscles is to stabilize the toes while supporting the arch. Modern shoes can cause weaker foot muscles and higher rates of flat feet than those who regularly wear shoes that mimic being barefoot. Plantar fasciitis is the most common injury when running. Evidence has shown that running barefoot on the grass can help with plantar fasciitis.

At OLM, we're big fans of the Vibram FiveFingers shoes. We always wear them for running, and for pretty much every activity besides running as well. Vibrams mimic the feeling of being barefoot. If you make the switch over to Vibrams, your feet and toes will likely be sore as you get used to them- but fear not! This is just a sign that the muscles in your feet are getting stronger. After a few weeks of regular wear, your feet should feel fine, in fact, you'll probably never want to wear any other shoes ever again. Wearing Vibrams has fixed any knee and feet problems that we've experienced while running, but just a word of caution, be sure to look out for rocks when you're running in your Vibrams.