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Summer Flip-Flops May Lead to Foot Pain

By [TARA PARKER-POPE](#)

Flip-flops can be bad for your feet and legs. (Bill Cunningham/The New York Times)

Flip-flops are a mainstay of summertime footwear, but they can be painfully bad for your feet and legs, new research shows.

Researchers from Auburn University in Alabama studied the biomechanics of the flip-flop and determined that wearing thong-style flip-flops can result in sore feet, ankles and legs.

“We found that when people walk in flip-flops, they alter their gait, which can result in problems and pain from the foot up into the hips and lower back,” said Justin Shroyer, a biomechanics doctoral student who presented the findings to the recent annual meeting of the American College of Sports Medicine in Indianapolis.

For the study, the researchers recruited 39 college-age men and women and asked them to wear flip-flops or athletic shoes. They then had them walk a platform that measured vertical force as their feet hit the ground. A video camera measured stride length and limb angles.

Flip-flop wearers took shorter steps and their heels hit the ground with less vertical force than when the same walkers wore athletic shoes. People wearing flip-flops also don't bring their toes up as much as the leg swings forward. That results in a larger angle to the ankle and a shorter stride length, the study showed. The reason may be that people tend to grip flip-flops with their toes.

Mr. Shroyer notes that he himself owns two pairs of flip-flops, and the research doesn't mean people shouldn't wear them. However, flip-flops are best worn for short periods of time, like at the beach or for comfort after an athletic event. But they are not designed to properly support the foot and ankle during all-day wear, he notes.

Update: For more on flip-flops, listen to the Well Podcast [here](#).

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