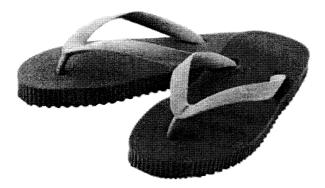
## Flip-Flop Flounder

Could walking in flip-flops be the reason some of us experience foot and leg pain? BY CYNTHIA KINCAID



A STUDY CONDUCTED BY RESEARCHERS AT Auburn University in Alabama found that people who wear flimsy shoes have an altered gait. And this change may account for the lower leg and foot problems people experience after wearing flipflops for long periods of time, says study author Justin Shroyer, a graduate student in Auburn's department of kinesiology.

However, not everyone agrees with the study's conclusion. While someone walking in flip-flops will have a different gait than they would if they were walking in shoes or going barefoot, "flipflops cause us to use muscles that we don't normally use and, therefore, they cause achy pain just the way a good workout does," says Glenn B. Pfeffer, M.D., director of the Foot and Ankle Center at Cedars-Sinai Orthopaedic Center in Los Angeles.

"I thought [the Auburn University study] made some excellent points," Dr. Pfeffer says. "But looking at any type of shoe wear and its effect on gait and pain is difficult because there are so many variables."

Dr. Pfeffer concedes that one of the main reasons for the pain that people experience when wearing flip-flops is the lack of foot protection. "They are thin, don't support the arch, and the force of the heel strike is directed right into the foot as opposed to being cushioned by a thick sole," he says. "So it's not surprising that wearing flipflops for a whole day is uncomfortable. They were never designed to be worn for a whole day."

Dr. Pfeffer feels that the leg and calf discomfort reported by wearers may be due to the extra muscle work involved in walking in the shoes. "When you walk in flip-flops for a long time, you're actually working your foot muscles in a way that you never do in [regular shoes]," he says. "When you walk in flip-flops, you use your toes more to hold on and keep the flip-flops in place. That increased action is actually an exercise that few of us do and is the same discomfort you get from exercising a lot."

Whether flip-flop wearers experience pain from an altered gait or flexing unused muscles, both the study and Dr. Pfeffer agree that replacing your flip-



A Wearing flip-flops gives your toe muscles a workout that other footwear doesn't require.

flops every few months and limiting wear time is a good idea. "Flip-flops can break down and get loose, just like any other shoe," Dr. Pfeffer says. "Just when they get that worn-in look is when we should get worried that they don't fit properly." ::

## POINT OF CONTACT

>> To learn more about the Auburn University study, visit www.auburn.edu and search for "flip-flop research."