



Ankle Stability and Better Running Performance

BY MATT FITZGERALD

The ankle is a joint of special importance. It is responsible for establishing a stable foundation for the body, for absorbing impact forces when the foot makes contact with the ground and for efficiently transferring force from the body to the ground during movement. To do these jobs well, the ankle joint must have adequate stability and mobility. And guess what? The ankles of most triathletes don't have enough of either.

The ankle has different roles in swimming and cycling than it does in running. Riding a bike does not challenge the ankle stability or mobility limitations of most athletes. You just need enough range of motion to bring the heel down to the level of the toe at the bottom of the pedal stroke and enough strength in the muscles acting on the ankle joint to efficiently transfer force from the leg to the pedal.

In swimming, ankle flexibility is far more important than ankle stability. Freestyle swimmers benefit from a far greater than normal range of motion in ankle plantarflexion (toe pointing). The capacity for extreme toe pointing enables the swimmer's foot to push water rearward instead of just downward when kicking, just as swim fins do. Increasing your ankle mobility will help you develop a more powerful and efficient kick. Ways to do this include swimming with fins on (sometimes, but not all the time!) and sitting on your heels on the floor for a few minutes each day.

Or, you can get by just fine as a triathlon

swimmer with normal ankle mobility.

But running is another matter. If you suffer from reduced ankle mobility (a consequence of wearing shoes with even slightly elevated heels all the time) and the compromised ankle stability (a consequence of the foot and lower leg muscle atrophy associated with always wearing shoes) that are all but universal in our society, you stand to greatly increase your running performance and reduce your risk of running injuries by correcting these deficiencies.

According to Darwin Fogt, owner of Evolution Physical Therapy in Santa Monica, Calif., lack of adequate ankle mobility causes stride abnormalities that reduce efficiency and increase injury risk. "The body is very smart," he explains. "It knows how to compensate. If your heel cord or Achilles tendon is too tight to permit the optimal amount of ankle dorsiflexion, yet you insist on running anyway, your body will find a way to get the job done."

Dorsiflexion entails lifting the toes up toward the shin, and it is required when the foot flattens out on the ground during the stance phase of the running stride, as your knee comes over your toe. If your ankle joint lacks the necessary 10-plus degrees of dorsiflexion needed to run normally, says Fogt, the body will likely compensate by artificially shortening the stride or increasing the outward (supination) or inward (pronation) roll of the foot. None of these adjustments is good for your performance or health as a runner.

To increase your ankle mobility, stretch your Achilles tendons and calf muscles daily and consider getting regular manual therapy treatments, such as myofascial release.

Instability at the ankle joint manifests as an inability to keep the ankle in its natural alignment throughout the ground contact phase of the running stride. And when the ankle falls out of alignment, the knee and hip tend to follow. Creating stability at the ankle is critical to creating stability throughout the kinetic chain when running.

Fogt helps runners and triathletes develop ankle stability by challenging their capacity to stabilize at the ankle in very simple ways. He has his clients simply stand on one foot for 30 seconds with a neutral arch. (When your arch is neutral, you could just barely squeeze a checkbook between the bottom of the arch and the floor.)

Even many high-level athletes cannot balance on one foot for 30 seconds. "And if you can't do that, you sure as heck can't maintain stability through a 10-mile run," he says. Once the athlete can balance on one leg, Fogt increases the stabilization challenge incrementally, by having him balance with eyes closed, then on an unstable surface, then while throwing and catching a medicine ball, and so forth.

"It's all very basic stuff that any athlete can do at home on his own," he says. And every triathlete should—because the better your ankles perform, the better you will. ▀