

Running Efficiency & Economy

“What’s the best way to run?” It’s a question I hear all the time. The answer...YOUR way. The body is a smooth operator, and an extraordinarily efficient movement machine. The more you run, the more your body is going to learn how to run. Everyone has a different gait and stride that is as unique as your fingerprints. Experienced coaches can recognize their runners from a distance simply by watching body mechanics. Although there is no one-size-fits-all running form, there are four principles that can help improve overall economy and lower the risk of injury.

- **Posture.** I’m sure you’ve heard a spectator or coach yelling for an athlete to “run tall!” Good posture means good body alignment, and good body alignment means fewer imbalances. Fewer imbalances create better mechanics, and better mechanics results in fewer injuries. I like to cue my runners to fix poor posture or misalignment by telling them to engage their core, and to keep their "chins up and eyes out."
- **Midfoot strike.** Heel striking is everywhere you look, from articles in magazines to the weekend warriors at the local park. For whatever reason, we’ve been conditioned to believe that a long stride is a better stride. Overstriding creates a point of contact with the ground in front of your center of gravity, with the primary impact point on the heel. This is the biomechanical equivalent of slamming on the brakes at the same time you are flooring the gas pedal! On contact, you create 3-5 times your bodyweight in vibratory energy, and heel striking compromises the integrity of your suspension system and its ability to absorb these vibrations. The result? A stiff lower back and bad knees. By heel striking/overstriding, you are attempting to pull yourself along the surface of the Earth using muscle groups that weren’t designed for the task. Instead try marching in place before your run to become familiar with the sensation of a midfoot landing, and then practice pushing the world behind you with each step you take.
- **Cadence.** Cadence is the technical term for the tempo of your run, similar to RPMs on a bicycle. Since we know longer strides aren’t better strides, how many short strides should you aim for? The magic number here is 180 strides per minute, or 90 footfalls with each leg over 60 seconds. For all my perfectionists out there, try not to get too focused on the numbers. It’s tough to hit exactly 180 EVERY time you go for a run. I average about 176, but sometimes end up as low as 165! What is most important is that you make an attempt for 180, because increasing your cadence and shortening your stride will also help bring your point of impact to the midfoot. If you’re landing on your midfoot, and consequently underneath your hips (center of gravity), your body is in a much better position to absorb the shock.
- **Lean.** Why work harder when you can work smarter? Running doesn’t have to be a constant struggle, because gravity can actually pull you forward. All you have to do is keep your feet underneath you so you don't hit the pavement! The key is to go back to our first form focus of posture. It’s important the core stays engaged and your spine stays straight as you lean forward from the ankles, NOT hinging at the hips. By leaning

forward ever so slightly, you're allowing gravity to do what it does best. Running is just falling.....with style.