



Basics of the Economy Training Phase

Economy (E) Training Notes—what is Economy training?

In brief, Economy training is comprised of short intervals that are 80-90% of sprint speed with full recoveries between each interval. The goal of Economy (which we typically do for 6-8 weeks, is to drastically improve your economy of motion (aka: "efficiency", "technique", or whatever you want to call it). With this improved technique and efficiency, you will increase your speed and endurance in every subsequent training phase the remainder of the season. In other words, when you become a more *efficient* runner, your VO₂ max *velocity* and Lactate Threshold *velocity* increase, even if your VO₂max or LT power remain constant. Increased efficiency upgrades your speed at all race distances, lowers your risk of injury, improves your endurance, and allows you recover faster. Interested in learning more?

How long are the intervals and the recoveries?

The great news is that Economy intervals aren't all out, rather they're designed to be very fast so they force you to learn to swim, bike, or run fast yet relaxedly, and they come with enough reset between each interval such that each workout is done as fast and with as perfect technique as the preceding interval. (We use running as an example sport for the remainder of our discussion, because it is the most familiar sport.) In fact, recovery intervals (RI), the rest period between the workouts, can be exceedingly long. There is no physiological upper limit on the length of the recovery. Rather, that upper limit is imposed by logistics—the workout would simply take way too long if you rested 15-minutes between each rep in an 8 x 400m track workout. And, with recoveries that long, you might no longer be appropriately warmed up to run at the prescribed speed. However, strictly from a nearly-full-recovery-between-workouts and neuromuscular training perspective, recoveries can—and should!—be extremely long. I've found that a 1:4 work:rest ratio is perfect. When training on your own, feel free to adjust this slightly. You can compress the recovery if you are truly short on time and otherwise would fail to meet the workout objectives without shortening the overall duration. For example, you can start with slightly shorter recoveries of 1:2-3, and progress to a 1:3-1:4 work:rest ratio as the main set progresses. However, let me caution you that unless you are an elite endurance athlete, if you feel ready to begin another rep before resting 3-to-4 times the duration of the previous interval, you are likely failing to run the prescribed speed required to optimize your efficiency. The key is that you must run *fast*. Not so fast that you lose your fluidity, but fast enough to be at the edge of your technique comfort zone.

What is the ideal speed for Economy?

The ideal Economy (E) interval speed varies according to the athlete and their target event. A runner training for a 1500m track race obviously has to be able to run faster than a triathlete. For distance runners (10k and above) and triathletes, the nominal pace is 800m-mile race pace, or the fastest you could run on the day you are training for 2-6 minutes (if you were perfectly rested, warmed-up, and the environmental conditions were perfect). As you gain more experience with this phase, you'll find that mile race pace will probably begin to feel too easy. That's a great sign, it



means you are improving! Start the phase with slightly conservative pace goals, and become more aggressive as you gain experience.

The rule that cannot be broken in Economy training is that each interval must be great—great form and great speed. So it is better to sacrifice quantity rather than quality. It is far better to reduce the number of reps while executing each to a T, then it is to practice bad form by doing an excessive number of reps, or reps with insufficient rest, and failing to meet the goal pace. Remember that you're never supposed to leave an Economy session completely dead, instead leave the session knowing that you could still do another rep or two at the same pace if the fate of the free world depended on it.

What is the ideal Economy interval duration?

Think of Economy training as a mix of interval training and form drills. The training load during economy is not very high, despite the high speed of the intervals, because the overall volume of intervals is low. The phase begins with very short intervals, as little as 100m on the track, and progresses to 200m and then 400m durations.

The ideal interval duration (distance) is one in which form can be maintained without undue stress for the entire interval; hence why we start with 100's early on. You'll notice you rapidly improve, the pace of your distance runs improves seemingly magically, and running just feels easier as you progress through this phase. Because you improve rapidly, the duration of the intervals can double every 1-2 weeks, until you are ticking off consistently fast 400's in about a month. Experienced athletes may do a rare workout with intervals as long as 600m, and 800m is an absolute maximum for triathletes.