

# It's the Economy, Stupid!

From the August '99 Port City Pacers PaceLeter

Almost every coach I've ever run across has told me that you can't get into shape in the weeks before a race; that all of your real conditioning occurs in the months of training leading up to the competition. And to a large degree they were right. Endurance takes months and yes, years, to build. And improvements in lactate threshold and  $VO_2$  max occur on scales of weeks to months. But is that all there is to it? Are you doomed to a sub-par race at the Chickasabogue 2-Miler if you haven't done Olympian-training over the last few months? Thankfully, the answer is a resounding "No!"

While many of the critical elements of endurance conditioning (improved intra-muscular capillary development, hemoglobin concentration, lactate threshold and  $VO_2$  max) respond relatively slowly to training, improvements in *economy* can occur very quickly.

While  $VO_2$  max is a measure of the total volume of oxygen an athlete can take in while training or racing, running or racewalking economy refers to how *efficiently* the athlete uses that oxygen. Athletes who use less oxygen at a particular pace are more efficient than those that use a lot of oxygen. And since oxygen is a scarce resource, the more economical racer will get to the finish line faster.

Economy workouts are aimed at improving high-speed technique and reducing the body's output of lactic acid at racing speeds. You can achieve these goals by forcing yourself to walk or run at speeds beyond the point at which your body now operates efficiently--and since most Pacers probably don't do *any* speed work on a regular basis, 2-mile and 5K race pace is well beyond that efficiency point! In other words, those easy runs down Dauphin Street, or around Spring Hill are great for building endurance, but they're not doing much to improve your running economy. To do that you have to get to the track. Or do you???

The great thing about economy workouts is that, although they are fast, they are short, short, short! Intervals are in the range of 15 - 60 seconds at 1,500-meter - 3K race pace with long (1- to 2-minute) recoveries. And although the track is a logical place to do these repeats, you can do them just about anywhere. Without admitting to being on campus after dark with a can of spray paint anything like that, I'll just say that there happens to be a nice 500-meter stretch of pavement down the Avenue of the Oaks at Springhill College that's marked in 100-meter increments--very nice for some short intervals in the shade when it's 115 degrees on the track.

You can also do repeats up, or even down, a slight, steady incline. Uphill segments will build strength, downhill "easy" speed--you can teach your neuromuscular system to go really fast without really working too hard. Wherever you choose to do your repeats, keep the following in mind:

**1. Warm up completely.** Economy work is all about improving your leg speed and extending the range of motion of your working muscles. Both can put a strain on your hamstrings and other muscles if they aren't fully warmed up. Run or walk for a good 10 - 15 minutes, gradually increasing the pace through the warm-up, then stretch and do some leg swings and other dynamic flexibility drills. Finally, do a few 30- to 40-meter accelerations to make sure everything is feeling nice and loose.

**2. Start conservatively.** If you don't do much fast training, even a few really fast repeats are going to be a great workout. Don't do more than 1/2 mile of repeats the first time out--8 x 100 meters, or 4 x 200 meters, for example--then gradually build up to no more than 2 miles of repeats.

**3. Don't go nuts.** Economy repeats work by nudging your body slightly beyond its current "comfort zone." If

you push so hard that your technique falls apart all you're doing is reinforcing sloppy, inefficient technique. Go fast, but not all-out.

**4. Fully recover.** Give yourself full recoveries--1 to 2 minutes of jogging or easy walking between intervals--and do everything you can to facilitate recovery *after* the workout. Cool down, rehydrate, and stretch completely. Then take it easy for a few days before doing any kind of intense training.

Increases in both interval speed and racing speed can occur almost unbelievably quickly. When adding economy intervals to an otherwise purley endurance-based training program, improvements in 200-meter times on the order of 5-10 seconds in a matter of weeks are common--and these improvements carry over well to racing. With records there for the plucking at the Chickasabogue 2-Miler, it's not too late to look for a surplus in your economy.

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