

Pace yourself for marathon success

[By Bill Shaw](#)

The Facts

Published February 6, 2006

What gives you the aerobic base to finish a 5K or a 10K strong, or to endure those grueling 13.1 miles of a half-marathon or 26.2 miles of a marathon?

The slow, long-distance run.

“Long runs develop cardiovascular efficiency to its maximum,” writes Jeff Galloway in “Book on Running” (2nd ed., Shelter Publications, 2002). “They are the single most important element in your program.”

“Your aerobic base is only as good as its parts that are slowest to develop,” says Marty Jerome in “February: Fundamentals,” the month’s essay in “The Complete Runner’s Day-by-Day Log and Calendar 2006” (Random House).

You run aerobically, according to Galloway, when you “do not exceed the pace or distance for which you have trained.” You run anaerobically when you exceed the speed and/or distance for which you have trained; you push muscles beyond their capacity, and they need more oxygen than the body can supply.”

To perform your best in a shorter or a longer run, it is not enough to train short distances at maximum speed. If your goal is a 5K or 10K, for example, you need to build up a running base of a long-distance run of a greater distance, e.g., a weekly, slower run of five to 10 miles. Increase the distance proportionally as the distance of your race goal increases.

“The sustained pumping of the heart helps the heart, arteries and veins become more efficient in transporting the blood and allows the lungs to absorb oxygen more efficiently,” Galloway says. “When the muscles are pushed to their limits (as in a regularly scheduled, gradually increasingly long run), they will respond better and work longer because of this strengthening of the circulation system.”

Slower, long-distance runs also help to increase your lactic threshold, the point at which the waste product of burned glycogen or sugar fills up the muscles and slows them down and decreases their efficiency.

The longer the race, the higher lactic threshold you need.

According to Bob and Shelly-lynn Florence Glover in “The Competitive Runner’s Handbook” (2nd rev. ed., Penguin 1999), “a 100-yard sprint is 92 percent anaerobic, 8 percent aerobic; an all-out mile is 75 percent anaerobic, 25 percent aerobic; a 5K race is 7 percent anaerobic, 93 percent aerobic; a 10K race is 3 percent anaerobic, 97 percent aerobic; and a marathon is 1 percent anaerobic, 99 percent aerobic.”

You must include the long, slow run as part of your running regimen because, Jerome emphasizes, “you’re ultimately only as fit as your aerobic base.”

Building a strong aerobic base is important for both younger and older runners. A strong aerobic base makes younger runners faster and older runners stronger in the later stages of a race.

As an older runner, I am able to push my pace up a notch in the last mile of a 5K. As a triathlete, I am able to gain on those who beat me in the pool and on the bicycle.

I am one of the last swimmers out of the pool; in fact, I have been last out of the pool more than once. I overtake some triathletes on the cycle route.

My aerobic training gives me the strength to pass younger runners in the run segment. (Our ages are body-marked on our calves, so I know when I pass someone younger than I am.)

So I’m out at least once a week for a six- to eight-miler. The slow, long-distance run builds aerobic strength and character.

Running footnote: My apologies to Jason Culverhouse, 32, of West Columbia, the fastest Southern Brazoria male marathoner, whom I overlooked in my last column. Culverhouse finished in 3:09:30, a 7:13 pace. He was 195 overall and 172 in his gender.