

RUN SLOWER TO RUN FASTER

Just what the title says: to be a better runner, to get the proper mileage in, you might have to slow down a bit.

BY JASON R. KARP, PHD

When I was a kid, I loved watching the TV sitcom, *I Love Lucy*. Lucille Ball was one in a million. There was a famous episode during which Lucy and her friend Ethel work at an assembly line, where they were assigned to wrap pieces of chocolate as they came down the conveyor belt. At first, the job was easy. The chocolate pieces were coming down the belt at a slow enough speed that Lucy and Ethel could easily grab each piece of chocolate and wrap it. Then the speed of the conveyor belt quickened, and Lucy and Ethel had their hands full. Literally. They couldn't wrap each piece of chocolate in time before the next piece was already passing them, so they grabbed handfuls of chocolate and shoved them in their pockets and in their mouths. It was hilarious, and that episode became a famous part of TV history.

Little did the director of that scene know that he revealed the secret to how to become a better distance runner.

Clearly, increasing the speed of the conveyor belt didn't work. Lucy and Ethel couldn't keep up with the pace of the belt. If the company that Lucy and Ethel worked for wanted to produce more wrapped chocolates in less time, they should have had more factories with more assembly lines and more workers like Lucy and Ethel wrapping chocolates coming down the multiple conveyor belts.

Deep inside your athletes' muscle fibers, those factories are the mitochondria, and those workers—the Lucys and Ethels—are the enzymes that catalyze the chemical reactions involved in aerobic metabolism. The more mitochondria a runner's muscles have, the greater his or her

muscles' capacity to use oxygen and the faster pace he or she will be able to sustain. The most efficient way to make more mitochondria—more factories, more assembly lines, and more workers—is to run more. And to run more, runners must slow down their runs, because there is an inverse relationship between training intensity and duration: The faster one runs, the lower the total amount he or she can run.

In addition to the slower pace of easy runs enabling runners to increase their weekly mileage, they also decrease the chance of injury and can get more out of their harder workouts because their legs will be less fatigued.

The number and size of mitochondria in the muscle fibers is sensitive to the volume of work performed. When the factories are stressed

because of greater demand, more and larger factories will be built to increase their supply to match the demand. If those pieces of chocolate kept coming down the conveyor belt long after the 30-minute *I Love Lucy* episode was over, more conveyor belts, and more and larger factories to hold those conveyor belts, would have been built to keep up with the demand for chocolate.

One of the biggest mistakes runners make is thinking that to run faster in races, they need to run faster in workouts. So, they run their workouts faster than their current fitness level dictates. I once coached a

college runner who ran 19 minutes for cross country 5K, and she told me she wanted to be trained like a 17:30 5K runner. So, I told her to run a 17:30 5K and then I'll train her like a 17:30 5K runner. Races, which tell the runner and you his or her current level of fitness, dictate the training speeds, not the other

way around. Distance runners don't do workouts to practice running faster; they do workouts to improve the physiological characteristics—to make more assembly lines—that will enable them to run faster in the future. Even if it's not as funny or as glamorous as the *I Love Lucy* chocolate episode.

Jason Karp is a coach, exercise physiologist, author of 8 books and 400+ articles, speaker, and educator. His best-known book is *The Inner Runner*. He is the 2011 IDEA Personal Trainer of the Year and two-time recipient of the President's Council on Sports, Fitness & Nutrition Community Leadership award. His REVO₂LUTION RUNNING™ certification has been obtained by fitness professionals and coaches in 21 countries.

EDITORIAL COLUMN

Continued from page 7290

Part of the problem is that the people who make the determinations here sometimes get it wrong. Politics, racial bias, nationalism, statistical manipulation and even ignorance influence decision making that is ostensibly made “in the name of science.” In the late 60's there was a Polish sprinter Ewa Klobukowska, whose career was ruined after her chromosomal make-up was deemed that of a male by the day's “scientific methods.” Stripped of her records and titles, humiliated at home and yet somehow, she managed to conceive and bear a healthy child less than two years later. Fake science?

One needs to accept that, in part, these decisions are being made by former athletes who could run, jump and throw well but whose “scientific method” is in a word, basic. The other half of this equation are political operatives along for the junket with all the resolve of a white flag and the political fortitude to vote with the majority.

In total this group is not chock full of Nobel Laureates but rather a group with feet of clay, like you and me, whose understanding of anatomy and physiology is stymied by the differences between the sigmoid and the semi-colon.

We live in interesting times. I truly believe the sentiment that one is born to meet the challenges one faces. But I have to wonder when I hear the toast that ends with “... may you live in interesting times” if it is being given “tongue-in-cheek.” And then I wonder to myself was it meant to be a blessing or a curse?

I draw your attention to Kevin McGill's piece on javelinist Steven Seymour. All but forgotten Seymour was an Olympic medalist and American record holder. McGill delves into Seymour's innovative training methods as Seymour struggled to master the aerodynamic changes of the javelin in the late 1940's and early 1950's. With six months, thousands

of miles of travel and countless hours of work, McGill has produced a fascinating piece on some forgotten track and field history.

A LONGITUDINAL EXAMINATION OF THE THROWING CAREER OF REESE HOFFA

Continued from page 7298

During those seasons it seemed a little harder him to feel completely prepared for the top competitions, but he was not quite sure why. This epiphany, made it clear that splitting off, just a little of his time, to begin the building of his academy, took away from some of the little details involving recovery, that allowed him to be at such a high level for so long. Such realization happened too late to have any effect on Hoffa's results, but it did serve as a valuable lesson for future use as an aspiring coach.