



Premier Endurance Coaching

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What should you do in the last week before an important competition?

Should you train as usual, reduce training a little or a lot, or rest completely? A classic study at McMaster University in Hamilton, Ontario, showed that slacking off is the way to go-but with a twist (MacDougall D, et al. 1990. Physiologic effects of tapering in highly trained athletes. *Medicine and Science in Sports and Exercise* 22 (2): S801).

Since the McMaster research numerous studies of runners and swimmers have given further credence to the notion that tapering in a specific way in the last few days before a race increases power, reduces lactate production, increases blood volume, increases red blood cell count, and increases carbohydrate fuel storage. Let's take a look at the details.

The Canadian researchers divided a group of 50-mile-per-week, highly fit runners into three taper groups. One group rested completely for one week. A second group reduced their mileage to only 19 miles during the week with all of it being slow and easy. Another ran slightly more than six miles for the week with almost all of it as fast intervals done at one-mile pace.

Prior to the taper week, all three groups were tested to see how far each individual could run at their one-mile pace (about 45 seconds per mile faster than 5k pace). At the end of the week, they were retested in the same manner to see how much the taper affected their performance.

The complete rest group showed no improvement, but the 66-percent-taper group increased their run distance by six percent. The six-miles-with-intervals group, however, improved their results by a whopping 22 percent.

The last group's taper was very simple. On day 1 they warmed up and then ran five, 500-meter repetitions at mile pace, walking until fully recovered after each. The next day they did four of the fast 500s. This reduction pattern was followed until the day before the post-test when they rested completely. During the week they ran only about 10,000 meters total-12 percent of normal-with most of it as intervals.

While reducing your training volume by such a huge amount may cause you to fear the loss of your hard-earned fitness, rest assured (no pun intended) that you will be better off because of it. In fact, several studies have demonstrated that fitness can be maintained for several days or even weeks with little training.

Any attempts to improve fitness by doing exhaustive workouts during the week of an A-priority race are likely to have the opposite effect. A little bit of hard work-enough to easily recover from within 24 hours-will do the trick. For sports other than running, the repetitions would be about 90 seconds at the goal pace or effort for the targeted race with long recoveries between them. For best results, you probably shouldn't taper more than about once every six weeks.

