## **COACH TIPS**

## TAPERING: PRIME YOURSELF FOR A GREAT RACE

By Hugh Thomas

f you are like most serious runners, you probably run quite a lot of races during the year and some of those races you consider your "big" events. These are races on which you focus your training effort for weeks in advance and where you hope to run a PR.

But now, with only a week or so before a goal race, what sort of running do you do? Let's assume it's a 10k race and that you are serious about a quick time. Perhaps you know you should cut back a bit, but succumb to feelings at the last minute that you need a few more long, fairly hard runs just to make sure you can complete the distance in your goal time. Perhaps you will cut way back on the total number of miles you ran, either running them all very slowly or maybe including some fast interval or fartlek workouts. Maybe you won't run at all!

How many of you will plan to limit yourselves to just small amounts of fast running covering a total of only a few miles? Probably none. The temptation to keep running for fear of losing all your fitness if you slacken off can be overwhelming. However, according to studies by researchers at McMaster University, Hamilton, Ontario, this form of tapering will produce the most dramatic and beneficial results.

Scientific evidence suggests that temporary training reductions bolster leg muscle power, reduce lactic acid production, and can cut minutes off 10K race times. In contrast, hard workouts just before a race can produce nagging injuries and deplete leg muscles of glycogen, their key fuel for running. Although coaches and exercise physiologists agree that tapering enhances performance, disagreement often exists on the most beneficial method to be used. This usually comes down to the questions of how much training should be reduced during the tapering period and whether speed work should be included or avoided completely.

To attempt to answer these questions and others about tapering, the McMaster University researchers studied the effects of three one-week tapering methods performed by well-conditioned runners. The runners averaged 45-50 miles a week of running and trained in eight-week long segments. After completing each segment, they tapered using one of the following methods, and then were tested by running to exhaustion on a treadmill at their mile pace. The results were compared to the same test run before tapering.

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The no running taper needs no explanation; they simply didn't run for a week. The second method involved running 18 or so miles at a relaxed pace and resting completely for one day. The third method had the athletes run hard 500 meter intervals, decreasing the number run each day. Day one they ran 5 x 500 intervals; day two, 4 x 500; day three, 3 x 500; day four, 2 x 500, and day five, 1 x 500. They rested on the sixth day and were tested on the seventh. Each interval session was preceded by a warm-up of 500 meters at an easy pace. Thus the total mileage for the week was only just over six miles.

The results were dramatic. Endurance times from the speedy taper improved 22%, while those for the slow 18-mile taper only improved 6%. No improvement was gained from the no running method. Why did the short, fast running work? According to the researchers, speedy tapering:

- Stockpiles more carbohydrate fuel in the runner's leg muscles;
- Increases red blood cell density;
- Augments total blood volume, permitting more blood to gush toward the leg muscles during exercise; and
- Enhances leg muscle enzyme activity.

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In addition, by running fast, athletes go through a "race rehearsal" which will keep their nerves and muscles "primed" for race conditions. Although the tests produced great results, the researchers admit that they still don't know what the optimal tapering plan actually is. But the tests do show conclusively that for the most successful tapering for a week or so, it is important to keep the intensity of workouts fairly high while cutting back drastically on mileage.

If you are interested in trying this method before your next important race, here's a schedule devised by Owen Anderson, Ph.D., editor of Running Research News. To compute your total interval distance for the tapering week, simply take your usual weekly mileage and multiply by 9%. The result is your total interval distance for the taper week.

For example, if you average 30 miles of running per week and want to use the McMaster results to plan your taper during the final week before an important Saturday 10K, calculate as follows:

 $9\% \times 30 = 2.7$  miles of intervals, or about 11 quarter miles (400 meter) intervals.

The taper schedule would look like this:

Begin each session with a slow half-mile warm-up.

**SUNDAY:** Four 400 meter intervals run at 5K pace.

Between each fast interval, walk and relax

until comfortable starting another.

**MONDAY:** Three x 400 at 5K race pace, with similar

rest intervals.

TUESDAY: Two x 400.

WEDNESDAY: One x 400.

THURSDAY: One x 400.

FRIDAY: Absolute, complete rest from running.

Given that you have a solid training base under your belt, the taper is the icing on the cake. Enjoy the reduced training time and prime yourself mentally and physically for a great race.



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