The Taper – My Favorite Transition

BY RANDY BERNARD

Most of us have a big race on our schedule and this big day has been preceded by weeks or even months of intense training to prepare us for the race. In order to "peak" for this event, we have all heard that we must have a proper taper to achieve optimal results.

So what is a taper and how does it help me improve on race day? Let's take a quick look at some key information about the taper. According to Inigo Mujika and Sabino Madilla, two Spanish researchers who have been responsible for much of the available research, it has been recently redefined as: "a progressive nonlinear reduction of the training load during a variable period of time, in an attempt to reduce the physiological and psychological stress of daily training and optimize sports performance." What did he say? Translation for us English speaking folks, "Rest before you race." One more translation for some of my friends from California (sorry Steve); "Dude, I need to chill, cause I'm totally wiped."

Mujika and Madilla cite a range of observed beneficial effects, including: changes in the balance of key hormones and blood content, reduced perception of effort and mood disturbances, reduced fatigue; increased vigor and improved quality of sleep.

The researchers go on to examine the evidence relating to various aspects of the taper and some of their key conclusions were:

1. - **Aim** – The primary aim of the taper should be to minimize accumulated fatigue rather than to attain additional fitness gains without compromising previous levels of fitness.

2 – **Training Intensity** – This is one aspect of training that should not be dramatically reduced. The maintenance of training intensity (i.e. quality) is necessary to avoid detraining, as long as reductions in other training variables allow for sufficient recovery.

3 – **Training Volume** – This, on the other hand can be reduced since reductions as high as 60-90% appear to induce positive physiological and performance responses.

4 – **Training Frequency** – High training frequencies (at least 80% of pre-taper values) seem to be necessary to avoid detraining and/or loss of feel in highly trained athletes (especially in the more technique-dependent sports like swimming). On the other hand, training-induced adaptations can be readily maintained with very low training frequencies (30-50% of pre-taper values) in moderately trained individuals.

5 – **Duration of Taper** – This is where art meets science. The researchers conclude that taper durations must be individually determined for athletes and dependent on their type and duration of event. Generally improved performance adaptations have been recognized with tapers lasting between four and 28 days.

6 – **Type of Taper** – According to their study the exponential taper, with a relatively slow non-linear decline in load had the most pronounced impact on performance. Translation: "It takes time to taper."

7 – **Expected Performance Improvements** – Now this is what you were really looking for right? While tapering strategies are usually effective at improving performance, they cannot be expected to work miracles. A realistic improvement is around 3% (usual range of 0.5-6%). This could mean 2.5 to 3 minutes on a sprint triathlon, or maybe 2 minutes on your 10k.

As you can see, even with the scientific research there is still some trial and error in finding the appropriate taper that works for you. With some guidance you will be well on your way to your best race ever.

Later, Dude!

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