**Time to Peak for Performance**

By Coach Ian Briggs

At this time of year many triathletes are planning on achieving their peak level of performance for the season.

In general, athletes will not demonstrate any significant gains in ability during the last 10 days prior to their main race, so this is often used as the tapering period to optimize all of the benefits gained during their many long hours of training.

Athletes will achieve their individual peak level of performance by working on the following five areas.

Maximise your aerobic capacity (V02max) - so more energy is available to sustain your exercise.

Simply swimming, biking and running for extended periods of time can heighten V02max (the maximal amount of oxygen that the body is able to consume). By intelligently increasing the duration of your weekly workouts, without increasing the actual intensity, will earn you increased aerobic capacity.

However, at a certain point, increasing your training volume no longer boosts V02max. At that point, intensity becomes the key factor: you'll have to cycle, run, swim at speeds which lift your heart rate to over 95 per cent of your maximum heart rate to push your V02max as high as possible.

Raise your anaerobic threshold - so intense efforts can be maintained with a minimum of fatigue. This is the exercise intensity above which lactic acid begins to increase appreciably in your blood.

If you increase your V02max, you will usually raise your threshold as well, since it is often a fixed percentage of aerobic capacity. It can also be raised independently by training continuously at about 85-90 per cent of maximal heart rate for 20-25 minute periods.

Becoming more efficient at each discipline - so less energy is wasted during competition and hard exertions feel less stressful.

To get more efficient, you'll need to carry out some training at levels of effort which are actually higher than your usual competitive intensities. These exertions cannot be sustained for long, so the plan is to employ short intervals at close to top capacity. Utilizing recoveries that are equal in duration to the work intervals can be good, because it helps an athlete's muscles develop 'lactate tolerance' - the ability to control increases in acidity and sustain high power outputs for longer periods of time.

Or, longer rest intervals can allow more work to be done during each work interval so you should complete some workouts with short recoveries and others with more extended recovery periods.

In competition, an athlete's nervous system must learn to control muscular activity at the precise exertion level required for the race. Specific training allows the nervous and muscular systems to come together in a coordinated way. To make this happen, simply to do some training at the exact intensity you hope to use during an important competition. Practice the exact tempo that will be required for the race.

Fortify yourself psychologically – so that the tough times during training and competing can be handled more easily.

Top performers are able to concentrate almost totally on their bodies during workouts and competitions. They block out extraneous thoughts and negative information which might impede their performances. The best athletes tend to be somewhat self-critical, but not overly so, and they often engage in 'positive self-talk', giving themselves encouragement both during training and racing.

The best competitors will let bad performances roll off their backs. They regard poor workouts or races as opportunities to learn more about themselves. From these they can make necessary changes in both their physical and mental preparations for competition.

For peak race performance ensure that your muscles on race day are loose but ready for maximally powerful efforts during competition. You mind must be positively focused on the task at hand and prepared for hard exertion.

Finally, learn how to rest - so that your hard training is perfectly balanced with adequate amounts of recovery.

Although tough workouts are necessary to get to the top, rest is equally important but is all too often missing from a potentially great athlete's schedule. Attuned to the idea that high-level workouts produce winning performances, many athletes go overboard, pushing themselves to the brink of fatigue and overtraining. This leads to less than optimal performances.

Good athletes learn that optimal training involves exercising and resting; it's not possible to reach supreme performance levels unless intense exertions are balanced with rest and recovery.

Working on these five factors will lead to the biggest pay-off of all: a peak in performance.