



CSS Training

For distance swimmers, so if you are training for Rottneest or the Anaconda- one physiological factor is all important: your lactate threshold, known as threshold. If you can improve your threshold speed your race speeds will improve. Your ability to sprint or work anaerobically above threshold is largely irrelevant in distance swimming and triathlon.

To improve your threshold you want to do your quality swim sets at your current threshold pace or just below it. Many athletes make the mistake of training above threshold in short sharp swim sets - that isn't nearly as effective.

Lactate threshold, threshold and css

In a laboratory we'd measure your threshold by taking small samples of your blood as you exercise. Fortunately there is a better way to find your threshold speed. Enter CSS.

CSS is an acronym for Critical Swim Speed. It's an approximation of your lactate threshold speed found by doing a couple of swimming tests. It's not precisely the same as threshold but is within a couple of seconds per 100m, which is accurate enough to guide your training.

Do I need to swim faster than my threshold to improve it?

Thinking "If I train at this faster pace my body will get used to it" is flawed because the body doesn't work like that. When you train faster than threshold you end up splitting the train effect into your anaerobic system too - which you don't need much when you race long distances. And you give your body a much greater recovery task after the session, which means it has less energy left over to make the fitness adaptations you are looking for. The result is that training above threshold gives you less adaptation of your threshold, not more.

Should i never swim above threshold then?

You certainly can include some anaerobic (huffy puffy oxygen debt) work and short sprints in your training - they're good for your swimming technique in themselves: they give you a feel of the water at higher speeds and train your nervous system to the higher forces. To really improve your distance swimming it is suggested you shift your big training sets away from anaerobic swimming to CSS swimming. In practise this means slowing the pace a touch and shortening the recoveries - making the speed more sustained.

So, still include some anaerobic and sprint work but reduce it and give it less importance in your swimming.