

TIPS FOR OPTIMAL TRAINING



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Illustration 1: New Zealand womens K4 training for the Rio Olympics

7 VO2max training

Maximum aerobic capacity (VO2max) refers to the maximum amount of oxygen consumed by the body during intense exercises, in a given time frame. It is a function both of cardiorespiratory performance and the maximum ability of muscles to remove and utilize oxygen from circulating blood.

The difficulty with VO2max training is that it takes about 2 minutes of intense activity to reach maximum oxygen consumption and by this time the muscles have already begun to utilise the anaerobic energy system and lactate is beginning to build. In the real world VO2max is a point of exhaustion where you have reached your peak and fatigue is rapidly setting in.



The aim of VO2max training is to produce an adaption that will result in an improved VO2max and to achieve this you need to reach and hold VO2max pace. It is the hardest training to do well. It is physically demanding and easy to go either too hard or not hard enough.

Stroke rate feedback has been a breakthrough in VO2max training. For the first time it gives athletes continuous accurate feedback on intensity and enables small adjustments in intensity to more accurately target their VO2max goal.

A typical on water VO2max training session will aim for a fixed stroke rate and only 15 minutes of effort. A common Vo2max training session is 5 x 3 minutes with 3 minute recoveries, a work rest ration of 1:1. It takes 2 minutes to get to VO2max on the first effort but because rest times are short



Illustration 6: Plenty of scope here for improvement, variation in cadence between efforts and drop off in cadence during efforts.

VO2max will be reached more quickly with each subsequent effort, and each subsequent effort will become more anaerobic. The goal is to spend as much time at VO2max in the 15 minutes of effort as possible.

Good athletes will be able to hold a steady speed and steady stroke rate through all of the 5 x 3 minute efforts. The analytics graph will show constant speed efforts with no reduction from effort 1 to effort 5 and the cadence trace will be fixed at VO2max cadence with no decline during the 3 minute efforts and no change from effort 1 to effort 5. If that is what your VO2max training sessions look like you are training at the correct VO2max cadence and are doing excellent VO2max work.



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