

How to *Paddle* **FASTER**

TIPS FOR OPTIMAL TRAINING



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

8 Anaerobic and alactic training

This work is at max but because the distances and repetitions can vary there will still be useful stroke rate data and distance per stroke data to analyse. At anaerobic and alactic intensities stroke rates are high, approaching max, so if there are any technique issues they become more apparent and as a result you will see a disproportionate decrease in distance per stroke.

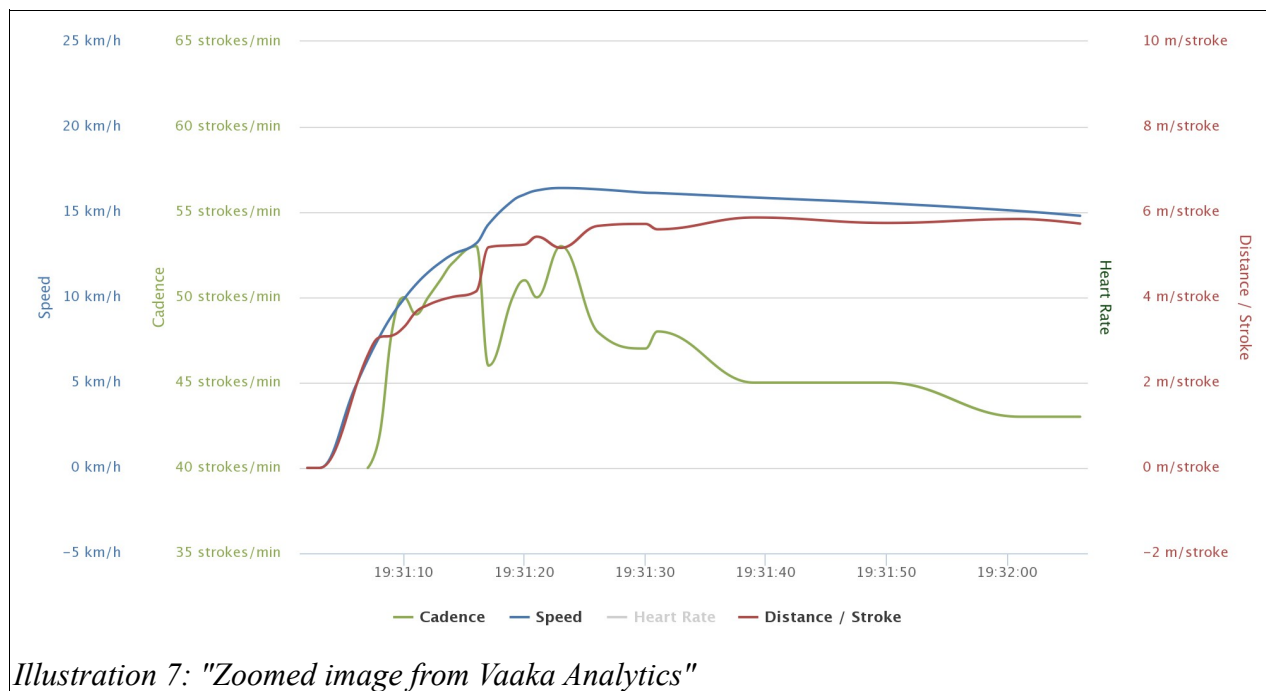


Illustration 7: "Zoomed image from Vaaka Analytics"

Alactic training uses the ATP reserves in muscle. ATP reserves are usually exhausted after 10-20 seconds of intense activity but because there is no physiological price to pay for this energy it should be used to the max to produce an explosive start. Training involves repeated starts and although the ATP system has a poor response to training there is plenty of adaption that can occur in the bio-mechanical pathways because they can be exploited to the max with no waste product build up. You will see improvement in max stroke rate and time to max speed. Your body will learn how to apply max force in the shortest possible time. To do this training properly it is important that the ATP reserves replenish so that the next effort can again be done at max. Efforts will usually last 10-20 seconds and need to be spaced 5-10 minutes apart.

Anaerobic training is any training above the lactate threshold (VT2). It is very hard on athletes so is limited to a maximum of one session per week. Efforts last from 20-90 seconds and can be repeated rapidly with little rest to encourage the ability to sustain anaerobic stress or with longer recovery of up to 10 minutes between efforts to enhance the ability to maintain maximum speed. Total anaerobic effort time in one session is 6 minutes or less. The session will last a lot longer of course when you add in the periods of recovery. This training is often too hard for athletes to maintain a fixed cadence but stroke rate and distance per stroke can be analysed after training to identify significant decline in cadence over the efforts or significant loss of distance per stroke. The training graph of an elite athlete should show constant speed and cadence throughout every effort and no loss of speed or stroke rate from the first effort to the last. If your training graph looks like this you are doing excellent anaerobic training if not you have identified an important area to work on.

[Expect the next chapter by email in 1 week!]

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