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# Maximal oxygen consumption in national elite triathletes that train in high altitude

*Gilberto Gonzalez-Parra, Rigoberto Mora, Bernhard Hoeger*

## Abstract

Triathlon is considered an endurance sport composed by the individual disciplines of swimming, cycling and running which are generally completed in this sequential order. It has been suggested that triathlon performance can be predicted by maximal oxygen uptake ( $VO_2\text{max}$ ). However, it has also been suggested that some variables such age, gender, fitness, training and ventilator muscles may affect  $VO_2\text{max}$ . It is the aim of this research to measure and analyze the  $VO_2\text{max}$  of 6 national elite triathletes and one

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national juvenile triathlete, with long experience, training in a high altitude city (1650m). We compare  $VO_2\text{max}$  for female and male groups. We found differences in the  $VO_2\text{max}$  values for these groups. Additionally, we also found high values of  $VO_2\text{max}$  for these young elite triathletes despite their relative short age, but long sport age.

Key words:  $VO_2\text{max}$ , triathlon, lactate, gas analyzer, gender

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