

The purpose of this research study was to determine the difference in improvement rates between anaerobic and aerobic training. Over two, four week periods $VO_{2\max}$ test and Wingate test were administered on 11 untrained students from a Northwest College. The hypothesis was anaerobic training would facilitate greater improvement rates in both $VO_{2\max}$ assessed through use of metabolic cart and anaerobic performance assessed through use of a Wingate test.

Depending on what systems an individual wants to improve in performance they should specifically stress the desired system. Overall participants who trained aerobically had a 13.01% average improvement ($p=0.275$) in the $VO_{2\max}$ test compared to 8.18% average improvement ($p=0.579$) in the Wingate test. Participants who trained anaerobically had a 3.77% average improvement in $VO_{2\max}$ ($p=0.744$) and also a 6.39% improvement ($p=0.667$) anaerobic performance.

In conclusion, the statistical hypothesis was rejected because anaerobic training did not produce the most beneficial results due to training. The anaerobic training only had improvement in the Wingate test while the aerobic training had the biggest effect on the $VO_{2\max}$ test. Results from this study indicate that individuals can improve at a faster rate in both aerobic and anaerobic capacity with aerobic training.