

TEXAS AMERICAN COLLEGE OF SPORTS MEDICINE 2009 CONFERENCE

Comparison of Aerobic Training Methods on V02 Max, Body Composition and Anaerobic Power

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Int J Exerc Sci 2(1): S16, 2009. Recent research has utilized intensity as a primary means to define training methods for improving aerobic capacity (VO₂ max). Alternative ways of classifying training techniques must be examined to elucidate optimal practices for aerobic capacity enhancement. **PURPOSE:** To investigate the potential impact of various aerobic training methods on V02, body composition and anaerobic power. **METHODS:** Thirtyfour healthy male & female subjects (18-30yrs) participated in an equated volume supervised running workout for six weeks utilizing two alternate training methods. Group one (N = 17, 21 ± 3 yr) participated in Interval Training Distance (ITD) and group two (N = 17, 21 ± 3 yr) participated in Long Slow Distance (LSD). All subjects participated in a familiarity session (FAM), a Pre-Test (T1) and a Post-Test (T2) . Each testing session consisted of a V02 Max, a 30 second Wingate and body composition assessment. Data were analyzed by a two-way ANOVA with repeated measures. Significance was set at $p < 0.05$ and adopted throughout. **RESULTS:** The ITD and LSD groups experienced significant increases ($p < 0.001$) in VO₂ max, with 9.05% (4.19 ± 4.15 ml/kg/min) and 3.18% (1.39 ± 3.67 ml/kg/min) increases respectively. A significant interaction ($p < 0.05$) in VO₂ max occurred between groups, as the ITD group displayed a 302% greater increase when compared to the LSD group. Body fat percentage significantly decreased ($p < 0.01$) in the ITD ($1.08 \pm 1.90\%$) and LSD ($1.55 \pm 3.21\%$) groups, while a significant reduction ($p < 0.05$) in total body weight was also observed. **CONCLUSION:** The findings of this study suggest that the ITD training method has a greater impact on aerobic capacity than LSD training method. However, both ITD and LSD training methods had a significant impact on aerobic capacity, body weight, and body composition.

