

INFLUENCE OF WARM-UP PRIOR TO INCREMENTAL EXERCISE TEST ON AEROBIC PERFORMANCE IN PHYSICALLY ACTIVE MEN

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Abstract

Introduction. The aim of the study was to verify the influence of warm-up before a ramp incremental exercise test with linearly increasing loads on the maximal values of physiological variables which determine performance. **Material and methods.** Thirteen healthy and physically active male students (age = 23.3 ± 1.5 years, body height = 179.1 ± 8.6 cm and body mass = 79.5 ± 9.1 kg) completed a cross-over comparison of two incremental exercise test interventions – an incremental exercise test with a 15-minute warm-up at an intensity of 60% of the maximal oxygen uptake obtained in the first incremental exercise test and the same test without warm-up. **Results.** The peak values of physiological variables were statistically significantly higher for the incremental exercise test with warm-up, the differences between tests being 2.66% for peak power output ($p = 0.039$, $t = 2.312$, $ES = 0.24$), 7.75% for peak oxygen uptake ($p = 0.000$, $t = 5.225$, $ES = 0.56$), 7.72% for peak minute ventilation ($p = 0.005$, $t = 3.346$, $ES = 0.53$) and 1.62% for peak heart rate ($p = 0.019$, $t = 2.690$, $ES = 0.60$). **Conclusions.** Warm-up before a ramp incremental exercise test resulted in higher values of maximal oxygen uptake, maximal minute ventilation, maximal heart rate and peak power output.

Key words: warm-up, incremental test, physical performance, maximal oxygen uptake