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1112 A COMPARISON OF CONTINUOUS AND SPLIT EXERCISE SESSIONS ON EXCESS POST-EXERCISE OXYGEN CONSUMPTION AND RESTING METABOLIC RATE
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The purpose of this study was to examine the effect of splitting a 30 minute exercise session into two equal 15 minute sessions on excess post-exercise oxygen consumption (EPOC) and resting metabolic rate (RMR). Ten male volunteers (age, 23.0 ± 3.8 y; VO_{2max} , 40.0 ± 2.2 $ml \cdot kg^{-1} \cdot min^{-1}$) participated in two exercise trials. The trials were randomly assigned in a counterbalanced design and separated by 40 h. One trial consisted of 30 min of cycling exercise at 70% of VO_{2max} (CONT) followed by a 40 min measurement of EPOC. During the other trial the exercise was divided into two 15 min cycling sessions (SPLIT) separated by 6 h. Each session of SPLIT was followed by a 20 min measurement of EPOC. RMR was measured the morning of and the morning after each trial. The results indicated that the combined magnitude of the two EPOCs from the SPLIT (7419 ± 1851 mL O_2) was significantly greater than the EPOC from the CONT (5278 ± 1305 mL O_2). The results failed to indicate any significant effect on RMR of performing two 15 min exercise sessions compared to one 30 min session. These data indicate that splitting a 30 min exercise session at 70% of VO_{2max} into two 15 min sessions will significantly increase the magnitude of EPOC, but will not affect RMR.