ABSTRACT

EFFECT OF ACUTE THERMAL-INDUCED HYPOHYDRATION ON RECOVERY $\dot{V}O_2$ AND HEART RATE

The effect of hypohydration on recovery $\dot{V}O_2$ and heart rate was investigated in 10 low-risk males (26.7±6yrs). Subjects performed three 1- min arm ergometry exercise bouts in euhydrated and hypohydrated conditions. Hypohydration was induced via intermittent sauna exposure and water restriction. The euhydration condition was the same as hypohydration, with the exception of water replacement. Volunteers lost a significant ($p<0.05$) amount and percentage of body mass (1.9±0.35kg; 2.3±0.36%), and showed a significant increase in urine specific gravity (1.015±0.007) when hypohydrated. Mean (±SE) time to recover to baseline $\dot{V}O_2$ in the euhydrated condition (363.72±41.17s) was not significantly different ($p>0.05$) from the hypohydrated condition (339.43±28.51s). Mean (±SE) heart rate at recovery baseline for the euhydrated condition (60.37±3.62bpm) was not significantly different than the hypohydrated condition (61.72±2.97bpm). In conclusion, hypohydration by approximately 2% of body mass produced no significant effect on $\dot{V}O_2$ and heart rate recovery from a short bout of mild exercise.

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