



University of Arkansas at Monticello

School of Education

THE EFFECTS OF AD LIBITUM FLUID CONSUMPTION ON NET BODY WATER BALANCE DURING MODERATE VERSUS VIGOROUS INTENSITY EXERCISE IN THE HEAT

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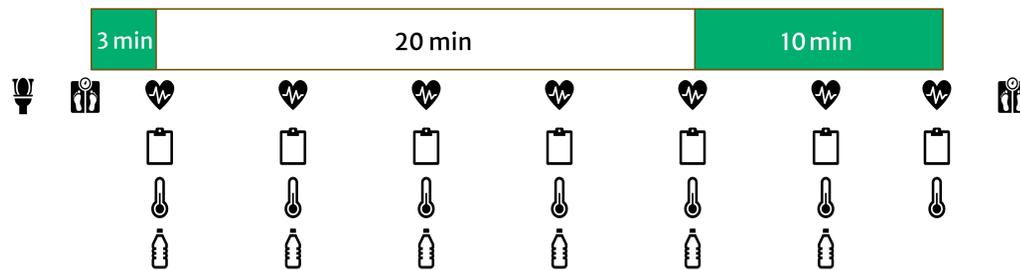
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INTRODUCTION

- Understanding sweat rate and fluid consumption in both athletes and recreational exercisers is important for safety and performance.
- Drinking strategies have been tested during ultra-aerobic events such as marathons, but not short bouts of aerobic activity such as walks at a moderate or vigorous intensity for under 30 minutes.
- This study focusses on net body water balance of recreational exercisers who meet the recommended daily exercise requirements and have cold water available during short bouts of aerobic exercise.

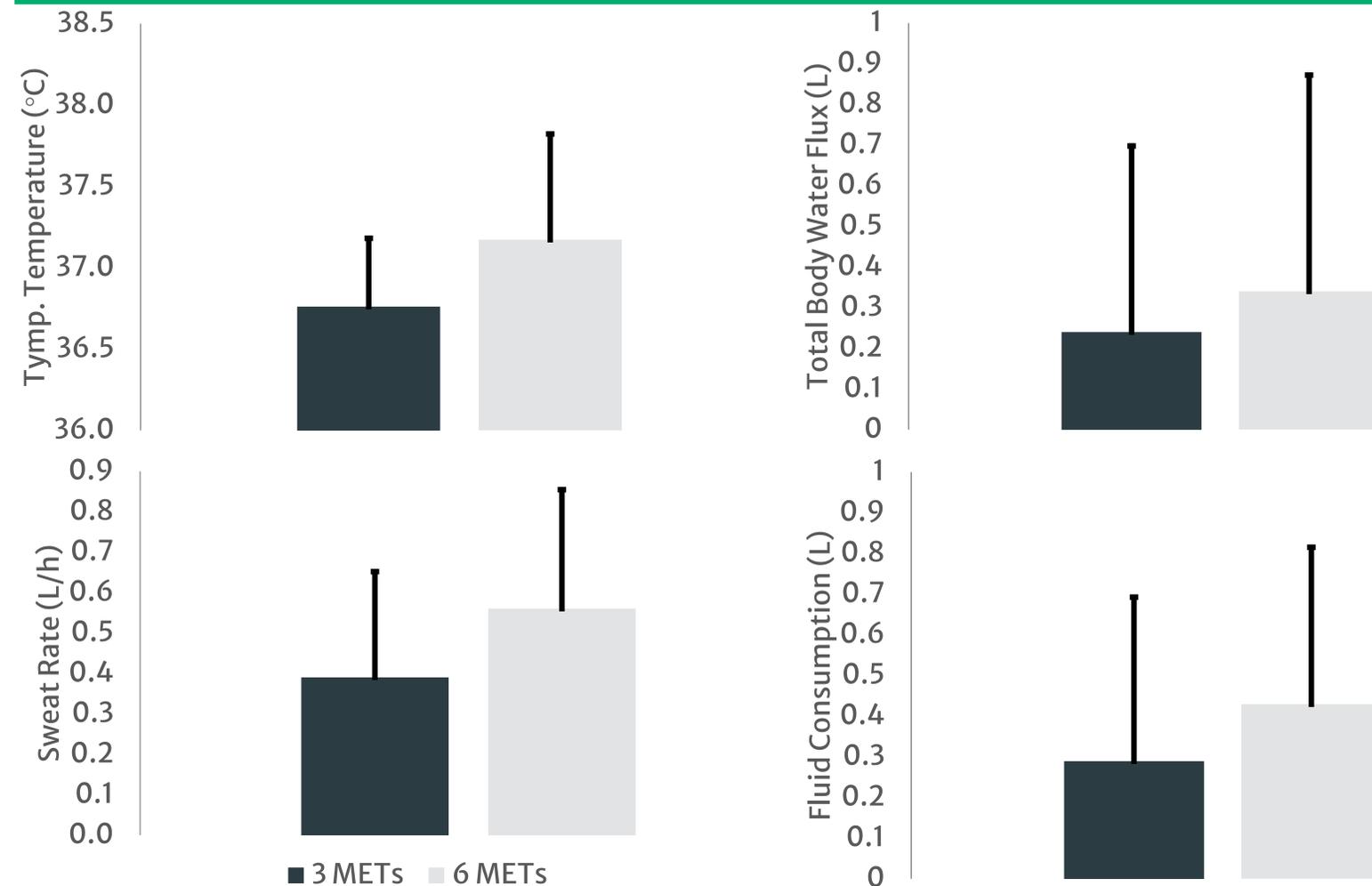
METHODS

- n = 10 (female = 4) participants (aged 24 ± 3 y) completed three visits
- Visit 1 = informed consent & general fitness assessments
- Visits 2 and 3 required participants to report to the laboratory after an overnight fast and verify euhydration via USG
- Protocol Below – 3 METs vs 6 METs in a counter-balanced, cross-over design.



- Variables – net body water balance, RPE, thermal comfort, heart rate, core temperature, fluid intake, and environmental conditions
- Paired-samples *t*-test used to investigate mean differences

RESULTS



CONCLUSIONS

- Ad libitum fluid consumption served as an adequate hydration plan for 20-minute bouts of aerobic exercise followed by 10 minutes of passive recovery in the heat for 3 METs and 6 METs.

PRACTICAL APPLICATIONS

- When exercisers meet the recommended daily exercise requirements and complete short bouts of moderate or vigorous aerobic exercise with cold water available, they will be able to maintain net body water balance in the heat.