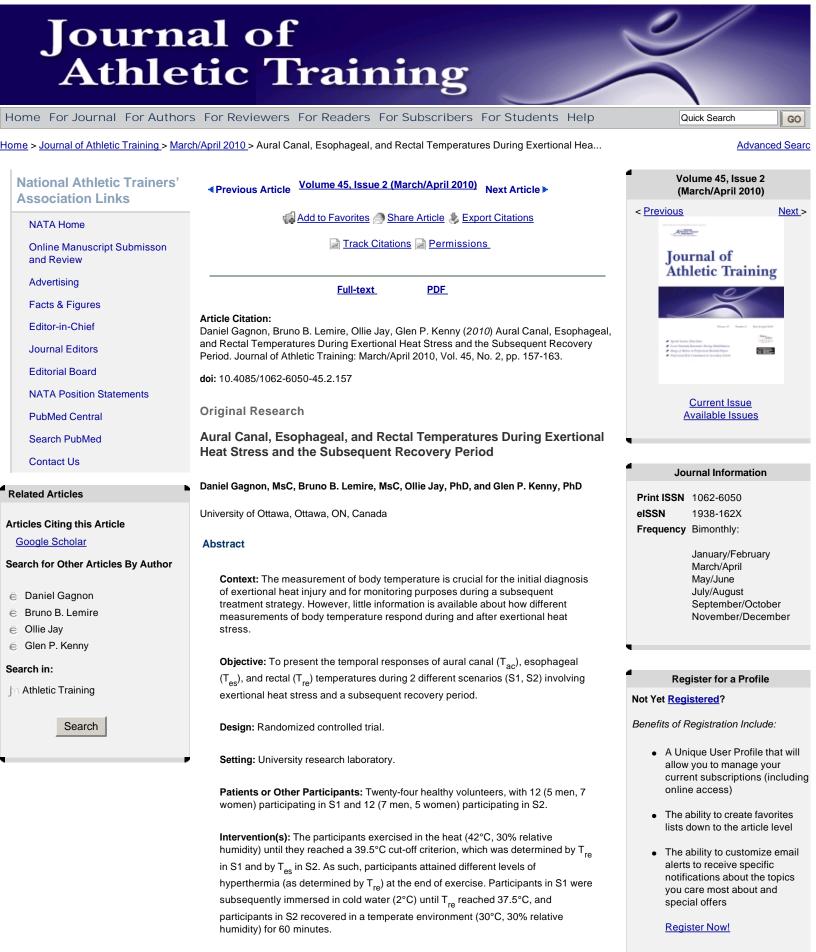
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Main Outcome Measure(s): We measured $\rm T_{ac}, \rm T_{es}, \rm and \rm T_{re}$ throughout both scenarios.

Results: The T_{es} (S1 = 40.19 ± 0.41°C, S2 = 39.50 ± 0.02°C) was higher at the end of exercise compared with both T_{ac} (S1 = 39.74 ± 0.42°C, S2 = 38.89 ± 0.32°C)

and T_{re} (S1 = 39.41 ± 0.04°C, S2 = 38.74 ± 0.28°C) (for both comparisons in each scenario, P < .001). Conversely, T_{es} (S1 = 36.26 ± 0.74°C, S2 = 37.36 ± 0.34°C) and T_{ac} (S1 = 36.48 ± 1.07°C, S2 = 36.97 ± 0.38°C) were lower compared with T_{re} (S1 = 37.54 ± 0.04°C, S2 = 37.78 ± 0.31°C) at the end of both scenarios (for both comparisons in each scenario, P < .001).

Conclusions: We found that T_{ac} , T_{es} , and T_{re} presented different temporal responses during and after both scenarios of exertional heat stress and a subsequent recovery period. Although these results may not have direct practical implications in the field monitoring and treatment of individuals with exertional heat injury, they do quantify the extent to which these body temperature measurements differ in such scenarios.

Keywords: cold-water immersion, core temperature, exercise, hyperthermia

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