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Abstract

This study both: (1) tested the effects of MSW ultra-negative-ion (-550mV ORP) water (8KNOT, Ltd., Osaka) on aerobic performance; and (2) partially evaluated the utility of an I²E: Unified-Model (Bittner & Sakuragi, 2006). Swim-team volunteers (11Ps) were accessed double-blind over 4 days following a MPPM or PMMP Schedule (M = MSW or P = Placebo, 250ml 120s before lap-swim). Analyses, adjusted and unadjusted for carryover, revealed significant ($p < 0.015$) increases in 600s lap-swim distance ($\geq 3.3\%$) and associated aerobic output ($\geq 13.2\%$). Lap-time analyses indicated emerging increases ($p = 0.04$, 1-tailed) within the first 100yds (50–100s) and between 1st and 2nd laps ($p = 0.01$). It is concluded that (1) *MSW Neg.-Ion Water increased 10 min. lap-swimming aerobic-output by $\geq 13.2\%$ – pointing to potential for substantial performance increases in athletes and older-workers, as well as VO₂-Max challenged retirees, and (2) this unprecedented increase supported predictions of the Bittner-Sakuragi Unified Model.*



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