

A Comparator Trial of the Effects of a Non-Caloric Alkalized Electrolyte Water Beverage and a Leading Sports Drink on Hydration in Healthy Female Volunteers

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Abstract:

PURPOSE: This randomized, comparator, crossover study was designed to compare the effects of Aqua-Lyte®, a non-caloric, alkalized electrolyte water beverage with Gatorade®, a caloric electrolyte sports drink, on hydration in female volunteers.

METHODS: Ten healthy females (18-45 yo) with at least 6 months of exercise experience completed two climate-controlled treadmill exercise sessions (separated by at least 3 days) resulting in dehydration, defined as a minimum 2% body weight (BW) reduction. Re-hydration fluid volume was 1.25 pints per lb BW lost. Blood/urine samples were collected pre-exercise and 30, 60, 90, and 120 minutes post-beverage consumption. Primary objectives were serum osmolality and hematocrit; secondary objectives were serum sodium, serum potassium, urine specific gravity (Usg), and BW recovery. Perceived taste and thirst were also assessed.

RESULTS: The rehydration characteristics of the two beverages were similar. No significant differences between the groups were observed at any of the post consumption time points [serum osmolality (p=0.114; 0.219; 0.124; 0.299), hematocrit (p=0.086; 0.339; 0.764; 0.912), serum sodium (p=<0.001; <0.001; 0.007; 0.008) and Usg (p=0.397; 0.833; 0.410; 0.581)]. No beverage was demonstrably superior to the other with respect to any of the efficacy endpoints.

CONCLUSIONS: Aqua-Lyte®, with its zero calorie value, was no different from Gatorade® in terms of its rehydrating effects in exercise induced dehydration among active females. Sponsored by Scientific Food Solutions, LLC

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