Hydration patterns among a Latin American sample

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Introduction: Water is essential to health, but is often overlooked. This can result in vulnerable individuals missing out on the support they need to help maintain a healthy level of hydration.

Objective: To evaluate the liquid intake habits of a Latin American population and if they know and support the current policies and recommendations of hydration.

Method: A record of fluid intake was obtained from 342 participants from Mexico and Uruguay and then compared with current consensus about hydration by the EFSA.

Results: The average fluid intake ranges from 1,900 mL/day, in females, to 2,600 mL/day in males, both above EFSA’s recommendation. Though water contributes the largest part to total fluid intake (mean of 1,440 mL/day in Mexico and 1530 mL/day in Uruguay), bottled water consumption was much higher (100% of the sample) than tap water, at least in Mexico. Hot beverages (50.5%), milk (36.7%) and carbonated soft drinks (32.4%), in Mexico, and hot beverages (41%), specially mate, in Uruguay, follow water in highest consumption. 8.5% vs. 35.2% of Mexicans and 10.6% vs. 50.8% of Uruguayans knew or not, respectively, the recommendations for hydration. Only 14% followed them.

Conclusions: Large differences in consumption habits were reported and were not enough to get the individual fluid intake recommendation. Knowledge of differences in beverage consumption patterns is important for nutrition policymakers. Better understanding of the many factors that influence beverage consumption levels is needed.

Key words: hydration, fluid intake, Latin American.

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Whole body water after 16 weeks of high intensity interval training in Metabolic Syndrome patients


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Introduction: Exercise is a cornerstone in the treatment of metabolic syndrome (MSyn). However exercise implies acute whole body water losses (i.e. sweating) which, if not properly recovered lead to chronic hypohydration.

Objective: To determine if a high intensity interval training (HIIT) program with “ad libitum” hydration strategy during exercise sessions is able to reduce fat maintaining euhydration in MSyn patients.

Method: Forty-two MSyn patients (15 women and 27 men; 54.0±7.9 years old) participated in a 16-week training program based on 3 sessions per week of HIIT performed in a cycle-ergometer (i.e., 5 x4-min at 90% of the maximal heart rate (HRmax), interspersed with 5x3-min at 70% of HRmax). During exercise sessions participants were allowed to drink water “ad libitum”. Body weight (BW), fat mass (FM), lean mass (LM), and whole body water (WBW) were measured before and after intervention using electrical bioimpedance analysis (Tanita TBF 300, Japan).

Results: After training participants loss 1.0±3.1 kg of BW (P=0.045) without changes in FM and LM (-0.2±3.2 kg; P=0.690, and -0.8±4.5 kg; P=0.264, respectively). WBW losses represented a 60% of the BW lost during training (0.6±3.5 kg; P=0.286). FM changes were inversely correlated with WBW changes (r=-0.747, P<0.001).

Conclusion: Hydration status was maintained after training, however participants did not reduce FM. Maintenance of WBW could enhance exercise-related FM reductions.

Key words: metabolic syndrome, interval training, hydration.

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Assessment of the body water content in the Spanish Women’s National Waterpolo Team

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Introduction: The regular practice of physical exercise generates in the human body a series of acute and