

## **Influence of Different Sports on the Taste Perception and Acceptability of a Commercial Sports Drink among University Student-Athletes**

**Authors :** Jana Daher, Ammar Olabi, Elie-Jacques Fares, Samer Kharrroubi, Tarek Gherbal

**Abstract :** It has been previously suggested that the perception and acceptability of fluids significantly varies between exercise and non-exercise situations. The study investigates the influence of different types of sports on the taste perception and acceptability of a commercial sports drink. A sample of Gatorade - red orange flavor was evaluated pre and post exercise by 34 male university athletes (20 weightlifters, 14 runners) recruited from the American University of Beirut. Urine samples were collected from the participants to test for hydration. Sensory testing examined the change in the intensity of sweetness, saltiness, sourness, and the thirst-quenching ability of the drink as well as its acceptability with respect to the type of sport practiced. Results indicated that the acceptability of the drink increased as the hydration status of the athletes decreased ( $p < 0.01$ ). No significant change was found in the perception of the sensory attributes between exercise and non-exercise conditions. However, there were significant differences between the two sports groups in the ratings of the thirst-quenching ability of the drink where runners' ratings increased after exercise while weightlifters' ratings decreased after exercise ( $p < 0.01$ ). These findings suggest that exercise has a larger effect on the acceptability and overall liking of the beverage compared to other sensory attributes. An enhanced liking of the beverage is key for optimal replenishment of lost fluids and electrolytes after exercise.

**Keywords :** hedonic, liking, sweetness, thirst-quenching

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