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Drink-flavor change's lack of effect on endurance cycling performance in trained athletes.

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This study investigated whether a change in beverage flavor during endurance cycling improves subsequent performance. Eight trained male athletes (age 24.3 +/- 3.9 y, weight 74.7 +/- 6.0 kg, peak O₂ uptake [VO_{2peak}] 65.4 +/- 5.4 mL x kg⁻¹ x min⁻¹; mean +/- SD) undertook 3 trials, with training and diet being controlled. Trials consisted of 120 min of steady-state (SS) cycling at approximately 70% VO_{2peak}, immediately followed by a 7-kJ/kg time trial (TT). During exercise subjects were provided with fluids every 20 min. After 80 min of SS cycling subjects either continued drinking the same-flavor sports drink or changed to an alternate flavor-either an alternate-flavor sports drink (AFSD) or cola. All beverages were carbohydrate and volume matched. Changing drink flavor caused no significant change in TT time (sports drink 27:16 +/- 03:12, AFSD 27:06 +/- 03:16, cola 27:03 +/- 02:42; min:s). The various flavors produced no treatment effects on heart rate, blood glucose, or rating of perceived exertion throughout the SS exercise protocol. The influence of other taste variables such as palatability, bitterness, or timing of flavor change on endurance-exercise performance requires more rigorous investigation.