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### Carbohydrate Mouth Rinse vs. Ingestion and Swim Performance

Rebecca F. Entner, Nick Griffin, Sarah Nealon and William A. Braun (FACSM), Shippensburg University, Shippensburg, PA

**PURPOSE:** The purpose of this study was to study the effects of carbohydrate (CHO) ingestion (ING) vs. mouth rinse (MR) on swim performance during swim training in collegiate level swimmers. **METHODS:** The study used 17 (8 Female, 9 Male) swimmers from Shippensburg University. A 15% CHO solution (50 ml) was used for testing. This was administered on two testing days: one as MR (10 second swish) the other as ING. On the third testing day, the subjects were given a 50 ml non-CHO placebo (PL) treatment. The participants swam a cycled practice (three cycles, each consisting of 1 x 300 yd, 2 x 150 yd, 6 x 50 yd, with increasing intensity) followed by a 200 yard, timed, freestyle performance trial. CHO or placebo was supplied prior to each cycle and prior to the 200 yd performance swim. Blood lactate and glucose, heart rate, rating of perceived exertion (RPE) and 200 yd performance time were measured. **RESULTS:** There were no group differences for any of the variables tested. Performance times were: 133.85 (MR), 133.01 (ING), 133.71 sec (PL). Mean blood lactate across conditions was: 3.35 (MR), 3.41 (ING), 3.8 mmol·L<sup>-1</sup> (PL). Mean overall BG by condition was: 95.95 (MR), 99.84 (ING), 98.09 mg·dl<sup>-1</sup> (PL). Significant time effects were detected for blood lactate, heart rate, and RPE. **CONCLUSION:** Based on the results of this study we conclude that neither ingestion or mouth rinse of CHO during a swim training session was found to improve 200 yd swimming performance completed at the end of the training session.

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