

## **ABSTRACT**

**THESIS:** Carbohydrate Mouth Rinse During Variable Intensity Exercise: Effects on Performance in Boys and Girls

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This study examined the performance effects of mouth rinsing with a 6% carbohydrate (CHO) solution and an electrolyte-matched placebo (PLA) during variable intensity exercise (VIE) and a one-minute performance bout in children. It was hypothesized that rinsing with CHO would increase peak power (PP) and mean power (MP) during VIE compared to PLA and that PP, MP and total work (TW) would be greater during the performance bout in the CHO trial compared to the PLA trial. Additionally, it was hypothesized that heart rate (HR) and rating of perceived exertion (RPE) during VIE and the performance bout would not be affected by the drink condition. Three children (9 – 11 years) visited the lab on three separate occasions. The first visit was used to determine maximal aerobic power and the two remaining visits were to complete 30-minutes of VIE and a one-minute performance test in a CHO and PLA condition. The results at the time of this report indicate that rinsing with CHO was not effective at increasing PP and MP during VIE or PP, MP, and TW during a one-minute performance bout. Rinsing with CHO did not alter HR or RPE responses during VIE or a one-minute performance bout. These findings suggest that rinsing with CHO does not enhance exercise performance in children during VIE or a post-exercise performance bout.