

Abstract

This bachelor thesis is focused on the effect of carbohydrate mouth rinse (CMR) on endurance performance. CMR is considered to be one of the effective nutritional strategies that increases endurance performance in duration from 30-90 minutes. The aim of this thesis was to determine whether CMR can improve performance in a running 30-minute test with self-selected pace and set rate of perceived exertion. All of that without any prior significant influence on nutritional status. Two trials were realized – with and without CMR. Total distance covered during a stated time period was compared, as well as the rate of subjective feelings during the physical activity in the sense of pleasure-displeasure using the Feeling scale. The heart rate was compared as well. Under specified conditions the ergogenic effect of CMR was not confirmed, on the contrary 6 of 8 participants performed worst in the trial with CMR compared to one without CMR. Five participants mentioned enhanced feelings of pleasure to some extent, but the differences were minimal. Regarding heart rate little difference were indicated in the case of average heart rate, when higher values were detected in six participants. However, overall significant effect of CMR on heart rate was not shown. For the efficient implication of CMR into the practice of wide scale of endurance sport further scientific work with a large group of participants will be needed. The design of these studies should correspond as much as possible with the competitive performance and should consider more the practical aspects of the use of CMR.