

Effect of Musa (Namwah) Banana and Chocolate Milk on Post-exercise Recovery Aid:

A Randomized Cross-over Study

Worrawut Thuwakum (Ph.D)^{1,*}, Sasithorn Sukjit (M.P.H)², Preetiwat Wonnabussapawich (Ph.D)³

¹Department of Sport Science, Faculty of Science and Technology, Uttaradit Rajabhat University, Thailand

²Department of Public Health, Faculty of Science and Technology, Uttaradit Rajabhat University, Thailand

³Program of Exercise and Sports Science, Faculty of Sciences and Technology,

Nakhon Ratchasima Rajabhat University, Thailand

*Corresponding author: worrawutt@uru.ac.th

Abstract

Introduction: The optimal nutritional strategies post-exercise is fundamental for ensuring recovery. Banana and chocolate milk has become an affordable recovery supplement for many athletes. Therefore, research aimed was to compare the acute effect of ingesting Musa banana (MUB) versus chocolate milk (CCM) on endurance time during the recovery period.

Methods: Twelve healthy male were participated in a randomized crossover design. They were instructed to the laboratory following an overnight fast of approximately 8-12 hour and refrain from heavy exercise before 24 h on the assessment day. Each participant completed an exhaustive glycogen-depleting treadmill exercise followed by a 2-h recovery period, during the recovery period, participants were ingested MUB (3.3 g·kg⁻¹) or CCM (5 ml·kg⁻¹) immediately following exercise, which both conditions we assumed that energy were equally. They were exercising again at 70% of maximum oxygen consumption until exhaustive after recovery period, recorded the endurance time (minutes), heart rate and rating of perceived exertion (RPE). All data during the supplementary MUB and CCM were analyzed by dependent samples t-test. The significant level was set at 0.05.

Results: The result showed that were not different heart rate and rating of perceived exertion were not different between MUB and CCM (186.4±12.41, 189.9±11.24 beat/min and 15.2±0.96, 15.1±0.93 respectively). However, the endurance time in MUB was significantly greater for CCM (47.7±21.6, 42.38±19.04 min, P=0.031).

Conclusions: The results of this study suggest that Musa banana supplementation during the recovery period could be an effective energy source and used for endurance exercise.

Keywords: Nutrition, Sports supplement, Endurance performance