

Pannawit Densumit, Acting SubLt. 2011: Effect of Caffeine on Physical Performance simulated from Rugby Football Game. Master of Science (Sports Science), Major Field: Sports Science, Interdisciplinary Graduate Program. Thesis Advisor: Miss Apasara Arkarapanthu, Ph.D. 134 pages.

The purpose of this research was to study the effect of caffeine on physical performance simulated from rugby football game. The subjects consisted of 10 male rugby football players aged 18 to 22 years from Kasetsart university. Double-blind crossover design were used in this study. These subjects drank one of the following drinks 1) coffee containing 0 mg/kg BW(D), 2) 3.5 mg/kg BW(M) and 3) 7 mg/kg BW(C). The experiments were repeated with diverse drinks with a minimal interlude of three days. Forty-five minutes after each drink, these subjects were tested physical performance i.e. heart rate during jogging, muscular endurance, ball-passing accuracy, speed, muscular strength, agility Each test consisted of two 35-min halves with a 10-min half-time rest. The data were analysis for the mean, standard error and significant difference by using one-way analysis of variance with repeated measures along with multiple comparison using the LSD method

The results revealed that after the subjects drank coffee containing 0 mg/kg BW(D), 3.5 mg/kg BW(M), 7 mg/kg BW(C) there were no significant difference in the physical performance. To get coffee with a little caffeine can cause increase heart rate. Although the mechanism of caffeine can not understand at all. However, it is estimated that the caffeine will affect the functioning of the central nervous system.

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Student's signature

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Thesis Advisor's signature