Prayute Buddhirakkul 2006: Effects of Caffeine Coffee on Psychomotor Performance. Master of Science (Sports Science), Major Field: Sports Science, Interdisciplinary Graduate Program. Thesis Advisor: Associate Professor Chareon Krabuanrat, M.S. 49 pages.
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This research aims to investigate the effects of caffeine coffee on psychomotor performance in athletes using double-blind crossover design. The subjects were 12 male athletes which were randomly sampled from the students in Suphanburi Institute of Physical Education. These subjects were divided into three groups of four athletes. The first as a control group drank decaffeinated coffee, the second group drank a cup of coffee which contained 70 milligrams of caffeine and the third group drank a cup of 140 milligrams caffeine coffee which was equal to two cup of coffee or a cup of two teaspoon instant coffee. These subjects were examined and recorded for response time before and 30, 60, 90, 120, 150 minutes after drinking these coffees. The experiments were done consequently three times by a week interval, each group was switched to drink the other doses, and so all these athletes would receive all three doses of coffee after three times experiments. The data were analyzed by using the mean, the standard deviation and the significant difference by the two-way analysis of variance with repeated measures using SPSS program.

The results revealed that the athletes who drank a cup of two tea-spoons instant coffee (140 mg. caffeine) were significantly decreased in the response time ($p=0.009^*$). Whereas the athletes who drank a cup of caffeine coffee (70 mg. caffeine) were not significantly decreased in the response time.

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