EFFECTS OF MULTIVITAMIN SUPPLEMENTATION ON HEART RATE RESPONSE IN AEROBICALLY UNTRAINED COLLEGE AGED STUDENTS

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Multivitamin use is increasingly prevalent in the US among most every population. Yet, previous research noted no performance benefits among individuals following a supplementation period. This study focused on the potential physiological benefits from a three week multivitamin supplementation period using 24 (20.9 ± 2.6 yr) aerobically untrained college aged students. Subjects were divided equally into three groups (placebo = PL, multivitamin = MV, control = CL) and asked to perform separate eight minute bouts of exercise, consisting of six min of moderate (60%VO2max) intensity followed immediately by two min of high (85%VO2max) intensity exercise on a cycle ergometer. Following the supplementation period, participants came back and performed the same exercise bout. Heart rates were measured with a POLAR Heart Rate monitor and recorded every two min. Data analysis, using ANOVA comparing the three groups, indicated a statistically significant HR interaction. Post hoc paired t-tests, comparing the pre/post supplementation tests of all groups, noted significant differences in HR between MV group during the 60% VO2 (p = 0.04) intensity bout, and approached significance at 85% VO2 (p = 0.10). No difference occurred for the CL group during either moderate or high intensity exercise. The results indicate that the introduction of a supplement, whether real or placebo, may have a physiological effect on the heart rate of aerobically untrained college students.