

70 INFLUENCE OF INCREMENTAL AEROBIC EXERCISE ON HOMOCYSTEINE LEVEL IN YOUNG MALES

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Recent studies showed that elevated concentration of plasma homocysteine can be one of the risk factors for cardiovascular disease. The aim of this investigation was to study the effect of 8 weeks incremental aerobic exercise on homocysteine. Twenty-eight sedentary young males (mean \pm SD; age: 19 ± 1.2 years and percentage of body fat: 25 ± 1.5) participated in this study, divided into control and experimental groups. The experimental group participated in a regular 8 weeks incremental aerobic exercise while the control group was prevented from any sport activity and just participated in pre- and post-testing. All participants were healthy and free of any medication and they did not have any sport activities during the last 6 months before entering study. However, at least one of their relatives suffered from cardiovascular risk factors. Maximal consumption oxygen ($VO_2\text{max}$) was assessed by Bruce incremental treadmill. The blood samples were taken at 07:00 to 8:00 in the morning after an overnight fast for plasma homocysteine. The results showed significant difference in maximum oxygen consumption between experimental and control group in post-test ($F=31$, $p<0.05$). No significant effect was found for 8 weeks incremental aerobic exercise on homocysteine concentration ($p>0.05$). There was no significant difference in homocysteine level in post-test between experimental ($X=17.9\pm 8.2$ mm/mol/l) and control group ($X=15.7\pm 4.8$ mm/mol/l) ($p>0.05$). In conclusion, 8 weeks incremental aerobic exercise cannot reduce plasma homocysteine as risk factors for cardiovascular disease in sedentary young males.