International Journal of Science and Research (IJSR)
ISSN (Online): 2319-7064
Index Copernicus Value (2013): 6.14 | Impact Factor (2013): 4.438

Effect of Resistance Training on Aerobic Fitness in Healthy Young Individuals

Nikita Modh[1], Dharmesh Parmar[2]

[1, 2] Lecturer, Ahmedabad Physiotherapy College, Gujarat, India

Abstract: ***Background:Cardiovascular fitness, which is health related physical fitness component, is the ability of the circulatory and respiratory system to supply oxygen during sustained physical activity. By use of various exercise protocols, VO_{2max} and thereby aerobic fitness can be improved. Resistance training is currently recommended for its effects on maintenance of strength, muscle mass, aerobic capacity, and prevention or rehabilitation of musculoskeletal problems. Aim of Study:To monitor the effect of resistance training on the exercise capacity, measured by VO_{2max}, in healthy young untrained individuals. Study Design,Sample Size and Sampling: A Comparative study, 20 subjects by convenient samplingmethod Methods: Baseline parameters of VO_{2max} and RPP were taken for each subject. Subjects were randomly divided into two groups [Resistance group (RG) and Control group(CG)]. In RG, eight resistance exercises, divided into two parts, were given with 4 sets of 10RM, performing both parts on alternate days. Chest press, retractors, arm extension, quadriceps, abdominal curl-ups, elbow flexion and extension, lower abdominals were included. After training, again VO_{2max} and RPP were taken. In CG, no exercise was given. Results: Statistical analysis was done using SPSS 16.0.Data were parametric hence un-paired t-test was used. There was statistically significant increase in the VO_{2max}(p=0.001)and decrease in RPP (p=0.006) values in RG compared to CG, suggesting increased aerobic fitness. Conclusions:Resistance training lead to significant improvement in the VO_{2max} and RPP, suggesting increased aerobic capacity of the sedentary individuals.***

Keywords: Resistance training, aerobic fitness, 10 Repetition Maximum, Rate Pressure Product