

Estimation of VO₂ max before and after Yoga Training in Healthy Male Medical Students

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Abstract

Background: Exercise is one of the important tools used by physiologists in understanding co-ordinated function of several systems in the body. Recent advancements in understanding physiology of exercise have shown that regular physical activity promote health and prevent many diseases. Yoga is an ancient system of Indian philosophy. It has been practiced for health and well being. Several researches have shown that regular practice of yoga improves health and well being. But there is paucity of research on changes in VO₂ max following regular practicing of yoga. Methods: This study was conducted in KMC Warangal on healthy medical students. VO₂ max was measured using Bruce Treadmill Test which is an indirect test that estimates VO₂ max using a formula For Men $VO_2 \text{ max} = 14.8 - (1.379 \times T) + (0.451 \times T^2) - (0.012 \times T^3)$ T = Total time on the treadmill measured as a fraction of a minute. Changes in VO₂ max prior to and after regular practice of yoga for 4 months were done. Results: VO₂ max of subjects before study were at a lower level as that of sedentary individuals. The control group had VO₂ max of about 36.09ml/kg/min and study group 38.17ml/kg/min. After 4 months of yoga training of the study group the VO₂ max was increased significantly to 41.66ml/kg/min. Conclusions: Yoga training improves the VO₂ max in the study group after 4 months. This may be due to the beneficial effects of yoga on respiratory and cardiovascular systems. Yoga has now shown to improve exercise tolerance when practiced regularly.

Keywords : Yoga, VO₂ max (Maximum Oxygen Consumption)

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