

# Effect of Eight Week Endurance Training on Serum Levels of Interleukin-2 and Interleukin-4 in Sedentary Men

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## **Abstract**

One of the factors that affect the immune system status and function is Physical activity. To find the response of cytokines to exercise, we examined the possible effects of an 8-week endurance training program on the serum levels of cytokines, including interleukin-2 and interleukin-4 in sedentary men. A total of 85 healthy young male volunteers were selected for this study. The training group followed a specific exercise protocol (running on a treadmill for 15-30 min at 50-70% maximal heart rate) for 8 weeks and the control group did not participate in any exercise program. Venous blood samples were collected 2 h before and 2 h after the exercise. Pair T test was used for statistical purposes. The serum levels of IL-2 and IL-4 were determined by ELISA. Non-significant ( $p > 0.05$ ) Increases were observed in the serum levels of IL-2 and IL-4, after the 8-week endurance training program. The findings of present study indicate that an 8-week endurance exercise may affect non-significantly the serum levels of some cytokines.