

## **How dose walking exercise affect serum lipids in underweight female adults?**

Habibzadeh N.

Department of Sport Science, University of Guilan, Iran, Rasht

### **ABSTRACT**

---

**Introduction:** Fat profile is an extremely important substrate for muscle contraction, both at rest and during exercise as yet, there is still no clear consequence of exercise on lipid profile regulation in underweight subjects and thus the purpose of this study was to compare lipids serums in underweight young women ( $BMI \leq 20$ ) before and after walking intervention.

**Materials and methods:** 20 underweight young non-athlete women volunteered to participate in this study and then they were randomly assigned into two exercise (E:  $n=10$ ,  $BMI=17.8 \pm 1.2$ , age:  $21.1 \pm 1.7$ yr) and control (C:  $n=10$ ,  $BMI=17.5 \pm 1.1$ , age:  $21.9 \pm 1.2$ ) groups. Pre and post assessment were contained somatic (age, height, weight, BMI) and lipids profile (FBS, LDL, HDL, triglycerides and total cholesterol) measurements. Exercise programme was consisted of 30-minute supervised

walking exercise at 60 % HR max at intensity equal with 40%  $VO_2$ max 3 days per week for 2 months.

**Results:** Data analysis showed post-BMI as well as body weight did not altered in comparison with pre - exercise programme ( $p > 0.05$ ). Subsequently all post - lipids variables included FBS, LDL, HDL, triglycerides and total cholesterol were elevated compared with pre- intervention walking exercise ( $p < 0.05$ .)

**Conclusion:** This study outlined that walking programme can be a stimuli toward ideal weight in slim individual because an increased lipids profile as indicators of an increased body mass in underwent individual who are at risk of diseases such as anorexia nervosa shows this notion. However, more investigation with longer duration is needed to justify this conclusion.

**Key words:** walking exercise, serum lipids, underweight women

---