

Original Paper

## Effect of 8 weeks of aerobic training on serum level of visfatin and TNF- $\alpha$ in non-athletic young women

Dehghanpisheh Sh (M.Sc)<sup>1</sup>, Daryanoosh F (Ph.D)<sup>\*2</sup>, Jafari H (M.Sc)<sup>1</sup>  
Mehrabani D (Ph.D)<sup>3</sup>, Kooshki M (Ph.D)<sup>2</sup>, Yaghikosh M (M.Sc)<sup>1</sup>

<sup>1</sup>M.Sc in Exercise Physiology, Department of Physical Education, Faculty of Education and Psychology, Shiraz University, Shiraz, Iran. <sup>2</sup>Assistant Professor, Department of Physical Education, Faculty of Education and Psychology, Shiraz University, Shiraz, Iran. <sup>3</sup>Assistant Professor, Stem Cell and Transgenic Technology Research Center, Department of Pathology, Shiraz University of Medical Sciences, Shiraz, Iran.

---

### Abstract

**Background and Objective:** There are controversial reports about the effect of training on serum level of visfatin and TNF- $\alpha$  Cytokine. This study was done to evaluate the effect of 8 weeks of aerobic training on serum level of visfatin and TNF- $\alpha$  in non-athletic young women.

**Methods:** In this quasi-experimental study, thirty non-athletic healthy women were non-randomly based on the weight, height, BMI index and body fat percentage divided into two control and training groups. In the training group 8 weeks of aerobic exercise on a stationary bicycle 3 times a week was performed. Serum level of visfatin and TNF- $\alpha$  was measured using ELISA method, prior and at the end of 8th week of training while the subjects were fasted for 12-14 hours.

**Results:** At the end of 8 weeks of aerobic exercise, serum level of visfatin and TNF- $\alpha$  significantly reduced in the training group in comparison with controls ( $P < 0.05$ ).

**Conclusion:** Eight weeks of aerobic training reduces visfatin and TNF- $\alpha$  serum level in non-athletic healthy women.

**Keywords:** Non-athletic young women, Aerobic training, Visfatin, TNF- $\alpha$

---

\* Corresponding Author: Daryanoosh F (Ph.D), E-mail: daryanoosh@shirazu.ac.ir

Received 4 Nov 2013

Revised 28 Jan 2014

Accepted 4 Feb 2014