

Satellite Symposium for Euro Global Summit & Medicare Expo on

# Weight Loss



## Evaluation the influence of sporting activities on cardiorespiratory fitness of youth in creating national standards

Vera Simovska Jarevska  
Univeristy of Bitola, Macedonia

Sporting activities are an integral part of population health, everyday life and work, and related to specific aims and interests of society. The aims of our study were: -to determine the value and importance of sporting activities on the basis on influence on cardiorespiratory fitness of youth; -to create national standards for cardiorespiratory fitness of different kind of sport activities by age and gender groups using software analysis. Material and methods: 57 different kind of sport activities were evaluated from the register of the Institute of Sports Medicine in Skopje. A great number of these are already practiced countrywide, and some of them, considering the dynamics, needs, possibilities and conditions of the social development, are likely to be practiced and improved in the next period. In the first phase, we have created a software tool for the best evaluation of different sport activities and their influence on cardiorespiratory fitness of 10.120 youth, engaged in regular sport activities in a city of Skopje. In the second phase, we evaluated 38 sport activities by using Astrand submaximal test. It was carried out on 891 randomly selected youth. The simple was divided into four groups of approximately the same number of youth by age and gender. In order to determine influence of sporting activities on cardiorespiratory fitness, compjuterized database provided 19 cardiorespiratory and anthropometric incomes, and 33 outcomes. The results of the arbitrary evaluation of spoting activities were evaluated with the essential descriptive statistics. Obtained results of cardiorespiratory fitness of physically active youth are significantly greater than VO2max of sedentary youth, presented in the next table:

| Age and gender of athletes    | VO2maxml/kg/min=X+/SD | Minimum | Maximum |
|-------------------------------|-----------------------|---------|---------|
| Male = 12-16 years            | 37.68+/-6.72          | 23      | 59      |
| Male = 17-21 years            | 41.40+/-7.99          | 24.6    | 64      |
| Female = 12-16 years          | 34.29+/-6.75          | 21      | 53      |
| Female athletes = 17-21 years | 36.36+/-7.29          | 22      | 58      |
| Sedentary youth (both gender) | 24.73+/-7.18          | /       | /       |

The results of software analysis are in order to help research institutes for creating standards through evaluating the influence of sporting activities on cardiorespiratory fitness of youth, specialist of sports medicine, sports coaches and nutritionist in diet planning, and prevention of sports trauma during exercise.

### Biography

Vera Simovska is Univ. Professor for Nutrition, Dietetics and Sports Medicine (MD.,PhD) and Coordinator of Master Study for Nutrition at the University of Bitola. She was an Expert in the Macedonian Ministry of Health, the European Commission (FP7, HORIZON 2020) and a National coordinator in several projects covered by the WHO from 2001 to 2015 (CINDI, Move for Health, HEPA Europe). She has a wide range of professional experiences, obtained in 5 countries. She research is focused on the role of nutrition and physical activity in the NCD prevention, especially obesity and cardiometabolic risk. She is the author of published over 100 original scientific articles, academic books and chapters.

vera.simovska@uklo.edu.mk

### Notes: