



Opinion

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Aerobic Exercise and Health Benefits



Pedro Victor Nogueira de Souza¹, Raphael Lopes Olegário¹ and Alexandre Lima de Araújo Ribeiro^{1*}

¹Department of Physical Education, University of Brasilia, Brazil

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*Corresponding author: Alexandre Lima de Araújo Ribeiro, Professor in Faculty of Physical Education, University of Brasilia, Brazil

Abstract

Physical inactivity is directly related to metabolic diseases, cancer, among others. In addition, physical inactivity provides an increased risk of mortality from various causes. Aerobic exercise, whether interval or continuous, is one of the tools for decreasing sedentary levels, as well as improving health markers and cognitive abilities. This type of exercise can even be practiced by individuals of all ages and health conditions.

Keywords: Aerobic exercise; Health; Sedentary lifestyle; Mental health

Introduction

A sedentary lifestyle and lack of physical activity negatively impacts the health of the individual, which can cause a series of diseases such as cancer, hypertension, type 2 diabetes and other diseases linked to physical inactivity [1]. Physical inactivity is also an aggravating factor for the health of individuals in children and adolescents, as physical inactivity in children and adolescents increases the onset of metabolic diseases and obesity [2]. Regular physical activity results in an increase in the maximal oxygen uptake rate (VO_{2max}), which in turn is directly related to a decrease in the mortality rate, therefore, the higher the VO_{2max} , the lower the probability of death from all causes [3].

Benefits of aerobic exercise

The physical exercise can reduce blood pressure and minimize the use of medication [4]. As demonstrated by Oliveira et al. [5] that through aerobic exercise found a reduction in blood pressure (BP) and a reduction in medication use. This study was conducted with 47 hypertensive patients of both genders, mostly women, aged between 46 and 77 years. The training consisted of 10 weeks, 3 times a week with intensity in the first 5 weeks were 50% of the reserve heart rate (HR), 60% of the 5th-8th week and 70% in the last 2 weeks. This exercise program resulted in a decrease in the number of medications used by patients, improved BP control and increased quality of life. Another study compared continuous versus interval aerobic training in Alzheimer's patients. Both protocols were performed at 30 minutes twice a week for 9 weeks. However, the interval was done 6 sets of 1 minute of stimulation at 80% of HR and 4 minutes of active rest at 60% of HR. This protocol resulted in an improvement in functionality, as well

as an increase in fitness and quality of life of these individuals. Thus, aerobic exercises demonstrated impact not only on motor parameters, but also on neural parameters [6]. The same occurred in a study in which treadmill exercises improve brain function after ischemia [7].

Physical exercise and mental health

As physical and mental status are generally mutually dependent on each other, there is a considerably direct connection between physical and mental health, so reduction in physical capacities may also cause a decrease in self-esteem, which is a set of abilities, competence and characteristics that an individual believes he or she owns [8]. However, the physical exercises can exert positive effect on mental health and consequently, people who undergo physical rehabilitation follow their treatment programs more effectively, realizing improvements in treatment [9]. That way, the exercise training not only promote the individual's physical health, but also may influence his or her mental condition. In addition, aerobic exercises such as jogging, swimming, cycling, walking, gardening, and dancing, reduce anxiety and depression [10]. These improvements in mood to be caused by increase in blood circulation to the brain due to exercise physical, and by an influence on the hypothalamic-pituitary-adrenal (HPA) axis and, thus, on the physiologic reactivity to stress [10].

Conclusion

We conclude that aerobic exercise is extremely important not only for physical and metabolic health, but also for mental health. Thus, the practice of aerobic exercise needs to be encouraged

for all groups and ages, as besides avoiding metabolic diseases also increases life expectancy, functional and cognitive ability. Regarding the performance of the exercises, scientific evidence shows that the practice can be done at different levels of intensity and stimuli, both in interval training and continuous.

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