

Міністерство освіти і науки України  
Комітет з фізичного виховання і спорту МОН України  
Сумська обласна державна адміністрація  
Управління молоді та спорту Сумської обласної державної адміністрації  
Національний університет фізичного виховання і спорту України  
Тартуський університет (Естонія)  
Сумський державний університет



**ІННОВАЦІЙНІ ТЕХНОЛОГІЇ В СИСТЕМІ  
ПІДВИЩЕННЯ КВАЛІФІКАЦІЇ ФАХІВЦІВ  
ФІЗИЧНОГО ВИХОВАННЯ І СПОРТУ**

ТЕЗИ ДОПОВІДЕЙ  
IV МІЖНАРОДНОЇ НАУКОВО-МЕТОДИЧНОЇ КОНФЕРЕНЦІЇ  
(Україна, Суми, 13–14 квітня 2017 року)

Суми  
Сумський державний університет  
2017

## THE IMPACT OF PHYSICAL ACTIVITY ON THE FUNCTIONAL CONDITION OF THE BODY

Lapko S. V., senior teacher; Tumbota M., stu.t  
*Kharkiv national medical university*  
*swetlana1871@ukr.net*

**Introduction.** Inactivity and hypokinesia are very big problems for modern people. These terms mean the lack of movement and physical activity. They are called "diseases of civilization" because today we have widely introduced automated and mechanized transportation and communication that requires less human activity which leads to deterioration of health and violation of many physiological functions. That is why the question of making everybody to go out for sports is so important.

**Goal.** To investigate the effect of physical activity on functional systems of the organism.

**The material research.** Systematic exercises have a positive influence on human health, increase ability to work, improve emotional state. The blood changes because the body increases the need for oxygen. By increasing the number of red blood cells and hemoglobin the oxygen capacity of the blood increases. Also, a growing number of white blood cells and their activity, improves the immune system. Motor activity increases the size and weight of the heart, accompanied by increased heart rate (HR), systolic and minute volume. The more intense the exercise is, the higher is the heart rate. But at the same exercise less trained person has a higher heart rate than a well trained one.

When a person is exercising it increases ventilation, which reduces the amount of the reserve and increase in respiratory air, which contributes to the diffusion of gases through the wall of the alveoli and reduces hypoxia. Vital capacity (VC) rises to 6–7 liters.

Moderate exercises enhance motor function of the digestive tract and improve all its other functions. Regular physical exercises increase blood flow to the joints, muscles, bones, which strengthens the musculoskeletal system. Improves the mobility of joints,

cartilage elasticity, tone joint capsule and ligaments, increases flexibility of the spine.

In the nervous system it improves the balance of excitation and inhibition, formation of reflex connections. Improves activity analyzer, auditory, tactile, vestibular, visual, which leads to improved coordination and rhythm of movement, spatial orientation develops the following Richie character, activity, ability to move quickly from one activity to another and mobilize organisms forces.

**Conclusions.** Normal functioning of the body is impossible without systematic optimal physical activities, those that fully meet the health and abilities. Excessive exercise is considerably higher than the functional abilities of a person, so all functional systems work with stress, which can lead to pathological conditions and deterioration of body functions.

### **References:**

1. Physical rehabilitation, sport medicine : textbook for higher medical schools / V. V. Abramov, V. V. Klaptchuk, O. B. Nahanevich. – Dnipro, Zhurfond, 2014 – 456 p.

2. General characteristics influence physical load of varying intensity on the body. Prepathological conditions and diseases that arise when irrational physical education and sport. Means of rehabilitation and stimulation in recreational and sports training. [Electronic resource] / I. Gurchich. Access: [http://intranet.tdmu.edu.ua/data/kafedra/internal/fiz\\_reabil/classes\\_stud/uk/med/lik/ptn/фізична%20реабілітація/4%20курс/03.%20загальна%20характеристика%20впливу%20фізичних%20.htm](http://intranet.tdmu.edu.ua/data/kafedra/internal/fiz_reabil/classes_stud/uk/med/lik/ptn/фізична%20реабілітація/4%20курс/03.%20загальна%20характеристика%20впливу%20фізичних%20.htm) – 16.03.2017. – Screen title.

3. Lectures of discipline "Sports Medicine" for students of physical education, specialty "Human Health" ("Physical Education") [Electronic resource] / Access: <http://www.studfiles.ru/preview/5253897/> – 16.03.2017. – Screen title.