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ІННОВАЦІЙНІ ТЕХНОЛОГІЇ В СИСТЕМІ ПІДВИЩЕННЯ КВАЛІФІКАЦІЇ ФАХІВЦІВ ФІЗИЧНОГО ВИХОВАННЯ І СПОРТУ

ТЕЗИ ДОПОВІДЕЙ
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THE EVALUATION OF PROTECTIVE AND ADAPTIVE MECHANISMS OF STUDENTS WHO HAVE DIFFERENT LEVELS OF PHYSICAL EXERCISE

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The adaptation of youth to emotional and physical activity has an actual value in the system of training of medical students. Staying of students in the new learning environment, at different clinical sites of the city, long duration journeys, many new disciplines and essential term of the learning process require appropriate adaptive response of the body, which is closely linked to physical and health.

An important aspect of this problem is the study of monitoring criteria for assessing homeostatic functions of the body in the system of physical training as reliable indicators of student's professional success. The availability of reliable performance indicators allows you to monitor the dynamic changes of physical training depending on the particular mode of learning process for operational support of student life conditions.

Dynamic monitoring control of testing of physical condition of students is one of the important tasks aimed at ensuring homeostatic functions, the important role in which belongs to the integrative systems – the nervous, the endocrine and the immune. They support such basic physiological functions as circulatory, respiratory and thermoregulatory ones and also metabolism and energy. These systems support the reliability of the metabolism of cells, organs and the whole organism at the optimum level, its self-renewal and reproduction. They restrict, prevent and normalize violations arising under various external and internal factors that accompany learning activities of students and the high level of mental stress. In this regard, the searching of these criteria which are significant and adequate indicators for assessing health is important in the diagnosis of violations under load in the system of physical education and creating an enabling environment of student's

successful activity. The aim of this paper was to evaluate the adaptive and protective mechanisms of homeostatic functions of the body of students engaged in physical education in general high school curriculum and who combine studying with game sports.

This paper investigated the state of some metabolic parameters in monitoring the students of the first and the second year of study in a medical college, aged 18 to 22 years. Of all amount of students 95 students were engaged in a comprehensive program of physical education (50 males and 45 females). They were included in the first group of supervision. The second group included students who were motivated by the desire to further engagement in game sports such as volleyball and basketball (16 males and 15 females).

Research Program provided the determination of the creatinine, urea, epinephrine, norepinephrine, dopa, dopamine, melatonin, sodium and potassium in the urine of students of the first and the second year of studying in medical university. Epinephrine, norepinephrine, dopa, dopamine were determined with the help of flourometrychnym method, which works on the principle that under the influence of catecholamines oxidants transfer in adrenochrome and noradrenohrom. Under the influence of light they convert into aminolutine which fluoresces in ultraviolet light.

The results of the study revealed the dynamic content of changes in urine of students of the first two courses in high school. The analysis of students engaged in high school physical education program showed the decrease of creatinine after two years on 31,01% and 27,12%, respectively, in men and women. The reason for these changes may be poor nutrition of students, accompanied by insufficient intake of protein and vitamins, high levels of emotional stress and the lack of exercise, which together resulted in a decrease of creatinine .The analysis of dynamic changes shows that more students exercise improves nitrogen and energy metabolism, activates adaptive and protective mechanisms to ensure homeostatic functions, which can be a positive factor that affects the training of students and their physical condition.