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**RESEARCH PHYSIOLOGICAL
REACTIONS OF
CARDIOVASCULAR SYSTEM AT
VIOLATION OF ADAPTATION
FOREIGN STUDENTS**

Adaptation to the students learning process in terms of modern higher education institutions is an important part of their training performance and health. The process of such adaptation may be more fully understood by the theory of functions. Internationalization of modern higher education dwells upon the adaptation of foreign students to an alien reality of high school and a new country. Every year in Ukraine arrives an increasing number of foreign students for higher education and each foreign student objectively the process of adaptation. The largest contingent of foreign students taking U.S. schools (over 30% of all foreign students in the world), followed by France, Germany, Great Britain, Canada, Belgium, Japan.

The process of adaptation of students reflects the complex, long-term process and puts high demands on the plasticity of mental and physiological functions of young people. The most active processes of adaptation to new environmental conditions and student life occurring in the first years of training, due to the stressful situation the body. Most neuro-psychiatric and psychosomatic disorders that occur in students is the result of adaptation to the learning environment and express

the instability of adaptive mechanisms in the long-term and short-term emergencies.

The study used data obtained from a survey of 60 adolescents aged 17-18 years. The main group formed by people from foreign countries - Turkmenistan studying in Lugansk National Taras Shevchenko University, and the control of Ukrainian students the first year. The study was conducted at the beginning of the semester.

Functional performance of the cardiovascular system as integrative criteria adaptive capacities oxygen transport system may be regarded as indicators of seeing reflect a balance with the environment. For a more detailed analysis of the functional capacity of the cardiovascular system in our study were used some hemodynamic tests that allow to fully trace functional changes in terms of circulation, which arise in adapting the students during training.

According to information obtained from the study of hemodynamics and control group in a state of relative physiological rest no significant differences in hemodynamics. Patterns of hydrodynamics are crucial in determining the hemodynamic features. A number of such constants as blood pressure, systolic blood volume, minute volume of blood characterize the functional state of blood circulation. At rest, the above figures satisfactorily stable, but changes occurring in various physiological conditions, they vary in wide limits.

The key difference between the indices of systolic blood minute volume of blood volume and cardiac index core and the control group was registered

after the functional test. After a functional test in the study group indices of systolic blood pressure, pulse pressure, diastolic blood pressure, and were more reduction compared with the control. Thus, it should be noted a relative hemodynamic stability that observed in the control group after the test load versus core, where fluctuations in these parameters occurred more widely. The highest differences in blood pressure and other hemodynamic parameters between the control and the main groups found after a functional test. It should be noted that the level of the studied parameters in the control group students was higher. However, the detected changes is different in size in control subjects and basic groups. Based on the comparison of the results in the control and the main group and a functional test set lower hemodynamic parameters resulting from a complex set of regulatory and hemodynamic effects. Obviously, lowering blood pressure and other hemodynamic depends on increasing tone and parasympathetic innervation of improving coordination mechanisms which determine the blood pressure and other hemodynamic parameters in the body.

The autonomic nervous system plays an important role in the process of adaptation, resulting in its functional state highly variable. Analysis of the regulatory functions of the heart is closely connected with the problem of interaction between sympathetic and parasympathetic divisions of the autonomic nervous system. It is important to estimate characteristics of sympathetic-adrenal system, because that puberty is characterized by higher rates of secretion of norepinephrine and

a significant advantage over activity of the sympathetic adrenal. Conclusions. The survey found that adaptation abilities Ukrainian students exceed the corresponding figures students - citizens of Turkmenistan. Analysis of the results revealed that the level of hemodynamic change under the influence of adaptive responses. However, the detected changes is different in size in control subjects and basic groups. Based on the comparison of the results in the control and the main group and a functional test set lower hemodynamic parameters resulting from a complex set of regulatory and hemodynamic effects. Obviously, lowering blood pressure and other hemodynamic depends on increasing tone and parasympathetic innervation of improving coordination mechanisms which determine the blood pressure and other hemodynamic parameters in the body in adapting students. Thus, the results indicate that in teaching between parameters that characterize the functional state of the cardiovascular system students are changing that associated with workload and inadequate adaptive response of the organism.