



Харківський національний медичний університет

Кафедра фізичного виховання та здоров'я

**III Науково-практична заочна конференція
з міжнародною участю
«Фізична активність і якість життя
ЛЮДИНИ»**

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засновника та першого завідувача кафедри фізичної
культури в Харківському медичному інституті
(1928-1936 рр.)*

06 травня 2022 року



2022 рік

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Жуковського
«Харківський авіаційний інститут»
Харківська державна академія фізичної культури**

«Фізична активність і якість життя ЛЮДИНИ»

**Матеріали III Науково-практичної заочної конференції з
міжнародною участю
(06 травня 2022 року, Харків)**

2022 рік

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That is, a third of first-year students who had a hypertensive type of reaction have an integrated CCC in the "voltage" range, which indicates an increased load on the blood supply with some reduction in variability, most likely due to most energy expenditure by students to prepare for external independent evaluation and to be in stressful situations due to the high mental load at the university.

Conclusions. In our work, we showed that one third of students have functional stress of the cardiovascular system. The adaptive activity of their body is carried out to the limit, which may be accompanied by the development of certain disorders. The state of functional stress of adaptation mechanisms is the initial stage of the border zone between health and disease. It is necessary not to waste time and to have time to make correction.

Sivakumar Nekha

**HARVARD STEP TEST IN ASSESSING THE ADAPTIVE
CAPACITY OF STUDENTS DEPENDING FROM THEIR
LEARNING SUCCESS**

Higher education seeker course 2, group 10 faculty 6

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In the modern practice of medical and biological control over the health of students is essential the place is occupied by functional diagnostic methods, which involve the establishment of the level functional state of the organism and its adaptive

capabilities, as well as detection early signs of pre-pathological and pathological conditions. It is generally accepted that the level physical fitness is the most important criterion for assessing adaptability individual.

Cardiovascular system With Her Regulatory apparatus, also may considered as a sensitive indicator of adaptive responses of the whole organism. Harvardstep test, the advantage of which is its accessibility and methodological simplicity, is widely used currently in order to assess overall physical performance, and accordingly, to study adaptive capabilities of students. The human brain consumes a lot of energy. This the figure is even higher in intensive mental work, for example, in solving complex tasks or during intensive training. At the same time, other body systems suffer from lack of energy, which affects the change in their functioning for the better or for the worse. It is in In this situation are first-year students who have spent a lot of time preparing for external independent testing (EIE). But, unfortunately, there is currently insufficient number of studies of differences in the state of the body in students with varying degrees of success training. The purpose of the study - to study the adaptive capabilities of first-year students, c depending on their academic success.

Materials and methods. The work was performed on the basis of Kharkiv National Medical university. All participants were first year students. According to medical cards, they belonged to 1 and 2 health groups. The basis of the step test was climbing bench 50 cm high with a frequency of 30 cycles per minute (120 steps) for 5 minutes.

The index of the Harvard step test (IGST) was determined by the following formula: $IGST = (t * 100) / (n * 5.5)$, where t is

the time of ascent in seconds; n is the number of pulse beats in the first 30 seconds of the second minutes of recovery. Physical performance was assessed as poor if IGST was lower than 55, below average 55 - 64, average 65 - 79, good 80 - 89 and excellent 90 and more.

Research results. According to the criterion of success in education, students were divided into two groups: group 1 had an external evaluation score of more than 170 points and group 2 - an external evaluation score lower than 170 points. The Harvard step test index in group 1 was 57.13 ± 4.71 , which corresponds t level of physical training below average (55-64 points). In the second group of students this the figure was 53.64 ± 4.55 , which characterizes the poor physical fitness of this category students (below 55 points).

Conclusions. According to the Harvard Step Test, the level of physical development is lower average was found in students of group 1 (statistically significant differences between groups absent), bad - in group 2. That is, students with better results have better results adaptive capacity of the organism, due to less influence of risk factors on their health.