

In 8 of 18 cases the aortic cannula was inserted in the ascending aorta, while in the remaining cases the left femoral artery was cannulated. In nine patients, we were lucky not to release the heart of cohesions and had a routine operation. Four patients (22,2%) required inotropic support with Dopamine (5 mg/kg body weight per minute), another four (22,2%) needed up to 10 mg/kg body weight per minute. The rest of the patients did not require any cardiotoxic agents. No deaths or complications were observed. The patients were discharged on day 12 to 14 post-op.

**Conclusions:** In patients with previously implanted mitral or aortic prostheses and on VKA anticoagulation, tricuspid-valve replacement should be performed via thoracotomy, under parallel perfusion, with 9-size cuffed intubation tubes used instead of venous cannulae. This does not deteriorate the pump and contractile function of the left ventricle, while improving the respiratory dysfunction. When performing primary tricuspid valve repair, the surgical approach and all the rest is done a routine fashion.

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#### ANALYSIS OF THE HEALTH STATUS OF THE STUDENTS ENROLLED IN THE MAJOR HIGHER EDUCATIONAL INSTITUTIONS OF THE ALTAI TERRITORY IN THE 2014–2015 ACADEMIC YEAR

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In recent years, modern man is increasingly looks narrowly at the state of their own health and of their children. He began to undergo regular medical examinations to monitor the quality of the food, engage in physical culture, he giving up bad habits.

According to the Federal State Statistics Service, since 2000 on average number of born alive per year, 36,6% children born sick with various diseases, 3% – with congenital anomalies, 50,3% – with individual adverse conditions originating in the perinatal period. To 7 years almost 33% of children diagnosed with chronic diseases, and to 14 years - variations in health status have almost 60% of adolescents [2]. According to the chairman of the Public Chamber of Russia Yevgeny Ochkasova in 2013 only 10% of high school graduates can be called healthy [1].

If only 10% of high school graduates can be considered relatively healthy, what happens to them in higher educational institutions (later in universities)? Obviously, the health of students during the years of education only gets worse: suffering mental health, musculoskeletal system, cardio – vascular and respiratory system, digestive organs, deteriorating eyesight and other organs and body systems.

As a result of the medical examination first-year students, by health workers, all students of educational institutions for physical training, depending on the state of health, physical development and functional training are divided into three groups: primary, preparatory and special. Separately distinguished students who are fully exempt from the practical lessons on discipline “Physical training”.

In order to determine the state of health of students of the Altai Territory, we have analyzed the results of the medical examination of freshmen 2014–2015 academic year, the five main universities of Altai Territory: Altai State University (AltUni), Altai State Technical University the name of I.I. Polzunov (AltTechUni), Altai State Agricultural University (AltGAUni), Altai State Pedagogical University (AltGPUi) and the Altai State Medical University (AltGMUni). A total of 5532 analyzed the results of the medical examination of first-year students of full-time academic year 2014–2015 (Table 1).

The obtained results showed, that to the primary group of health for physical training, there are 3478 students, accounting for 62,87% of the total number received, the preparatory – 817 students, accounting for 14,77%, to a special medical group there were 1061 students (19,18%).

It is worth noting, that according to the results of the medical examination, to the primary group of health belong practically healthy students with minor deviations in health, good physical development and physical preparedness.

**Table 1**

The distribution of first-year students on medical teams for the physical training

Indicator	Medical teams			
	Primary	Preparatory	Special	Exemption
Number of students	3478	817	1061	176
% o students	62,87	14,77	19,18	3,18

Table 2

The results of the medical examination of the full-time first-year students, enrolled in the major universities of the Altai Territory in the 2014–2015 school year

University	Medical teams, %			
	Primary	Preparatory	Special	Exemption
AltFMU	29,34	33,09	36,56	1,01
AltGTU	68,86	13,85	15,6	1,69
AltGAU	70,24	2,35	23,29	4,12
AltU	55,52	20,05	20,23	4,19
AltGPU	87,84	2,85	4,27	5,05

Thus, 37,13% of the students, of the total number received in all the relevant universities have varying degrees of deviations in health status (preparatory, special medical group and released from physical training). Of these 176 students, which is 3,18%, they have a serious illness, including disability, and fully exempted from practical lessons on discipline “Physical training”.

In the Altai State University, according to the results of medical examination admitted roughly equal number of students belonged to preparatory and special medical group – 20,05% and 20,23% respectively of the total number admitted to this school, and in the Altai State Technical University – 13,85%, and 15,60%, respectively (Table 2).

In AltGAU and AltGPU the preparatory medical group on the results of a medical examination referred smallest number of students compared to other universities – 2,35% and 2,85% respectively. As a result of the medical examination of the first year students of AltGPU also recorded the lowest number of students assigned to special medical group – 4,27% of the total received by the Academy. Among the other distinguished universities AltGMU, which, in the period under review, received the largest number of students with different variations in health status. The preparatory medical group medical university enrolled – 33,09%, in special medical groups – 36,56% of the students.

Based on the findings, we can say that in AltGPU in the 2014–2015 academic year admitted the maximum number of relatively healthy students, compared to other universities – 87,84%, and the largest number of students exempt from practical physical training – 5,05%. In AltGMU there was recorded the lowest number of relatively healthy students – 29,34%, and 1,01% – exempt.

From the results of medical examination we can say that the quality of health of highly qualified graduates desired to be better, because today's freshmen, will be graduates “tomorrow”. In this connection, in our opinion, we have to not just be in the active search for new effective means and methods of physical education aimed at the preservation of health and prevention of major diseases, but already starting to use them in the educational process.

The main diseases of young people in Russia are cardio – vascular, respiratory, nervous system, musculoskeletal system, and organs of sight [2]. Given this fact, we believe that it is necessary to include in the content of each physical education classes for students of preparatory and basic health group corrective exercises aimed at disease prevention and health promotion. Exercises that bear such a nature, has long included in the content of the classes of special medical group, but as a rule, are not compulsory in primary and preparatory group health.

If today the teachers of secondary schools and teachers of higher and secondary specialized educational institutions of physical education in their classrooms will apply corrective exercises aimed at disease prevention and health promotion, then tomorrow we will see a completely different data.

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#### THE ADVANTAGE OF EXOSOMES AS VECTORS OF DRUGS

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The article considers the advantages of exosomes as vectors of medications over artificially constructed vesicles.

The main problem of modern therapy is the low pointness of drugs and obsolescent over time medicines. In connection with this it is necessary to create new delivery agents providing direct delivery of