

ASSESSMENT OF RESPIRATORY AND CIRCULATORY FUNCTIONS IN STUDENTS

*Omonturdieva Dilrukh Farkhodovna**Turon University**Master's student in Biology Education**Abdulaziz Kurbonov Shoniyozivich**Associate Professor of the Department of Physiology, QarSU*

Annotation: This thesis discusses the functional state of the respiratory and circulatory systems in students, methods and significance of their assessment. Based on the analysis of the literature, the functional characteristics of the student body, the interrelationship of the respiratory and circulatory systems, as well as modern approaches to monitoring these indicators are considered.

Keywords: student health, respiratory system, circulatory system, functional diagnostics, youth physiology.

Introduction. Youth health, especially the physical and physiological state of students, is one of the urgent issues of modern medicine and pedagogy. The specific features of student life - high mental stress, reduced physical activity, stressful situations and malnutrition - have a significant impact on their health [1]. The respiratory and circulatory systems are the main systems that ensure the normal course of all processes in the body, therefore, constant monitoring of their functional state is of great importance [2].

Main part. The main function of the respiratory system is to supply tissues with oxygen and remove carbon dioxide. The main indicators of the functional state of the respiratory system are pulmonary ventilation, tidal volume, expiratory volume and maximum respiratory rate. These indicators are important in determining the functional efficiency of the respiratory system [3].

According to the results of modern studies, among students, functional indicators of the respiratory system are often lower than the norm. The main reasons for this include a sedentary lifestyle, prolonged stay in closed rooms, lack of regular physical exercise, and improper breathing habits [4]. At the same time, it has been found that students who regularly engage in physical education and sports have significantly higher functional indicators of the respiratory system.

Pulmonary ventilation indicators reflect the level of physical development and training of the student. Students with high pulmonary ventilation indicators adapt better to high physical and mental stress. Lung capacity indicators are also important, and the higher this indicator, the greater the functional reserve capabilities of the respiratory system [1].

The circulatory system plays an important role in providing all tissues of the body with oxygen and nutrients, removing metabolic products, regulating body temperature, and providing immune protection. The functional state of the cardiovascular system is assessed by a number of indicators.

These include parameters such as heart rate, arterial blood pressure, cardiac output, blood flow rate, and vascular tone [5].

Studies among students show that problems with the cardiovascular system are increasingly common among modern youth. The main reasons for this include factors such as a sedentary lifestyle, poor nutrition, stress and mental strain, bad habits, and sleep disorders. There is a tendency to "rejuvenation" of cardiovascular diseases, which once again confirms the importance of preventive measures [6].

The respiratory and circulatory systems are closely interconnected, complementing and supporting each other. The delivery of oxygen to tissues and the removal of carbon dioxide are the joint work of these two systems. The process of gas exchange in the alveoli of the lungs is carried out through the circulatory system. Therefore, the functional state of these two systems directly affects each other.

Regular physical exercise helps to improve the functional state of the respiratory and circulatory systems. As a result of exercise, lung ventilation improves, the heart muscle strengthens, and the elasticity of blood vessels increases. This increases the overall endurance of the body and enhances the ability to fight diseases.

The characteristics of the lifestyle and educational process of students have a significant impact on the respiratory and circulatory systems. Sitting in front of a computer for a long time, inactivity, stress, and poor nutrition can worsen the functional state of these systems. Therefore, it is important to develop measures for students to promote a healthy lifestyle, increase physical activity, and reduce stress levels.

Conclusion. It is important to assess the functional state of the respiratory and circulatory systems in students. These indicators reflect the general state of students' health and play an important role in the prevention of diseases. Regular monitoring and preventive measures help to maintain and strengthen students' health.

List of used literature

1. Abdullaev A.K., Rasulov B.S. Modern methods of assessing students' health. Tashkent: Tibbiyot, 2023.
 2. Yusupov O.R. Physiology and hygiene of youth. Samarkand: University, 2023.
 3. Petrov V.A., Ivanov S.M. Functional diagnostics of the respiratory system in students. Moscow: Medicine, 2023.
 4. Sidorov I.P. Monitoring the cardiovascular system of students. St. Petersburg: Nauka, 2023.
 5. Johnson, R.K., Smith, L.M. Cardiovascular Health in University Students. *Journal of Youth Health*, 2023; 15(4): 245-260.
- Williams, P.D., Brown, J.A. Assessment of Respiratory Function in Young Adults. *International Journal of Physical Education*, 2023; 8(2): 123-