

## HEART AND CARDIOVASCULAR SYSTEM

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**Abstract:** *The heart and cardiovascular system are one of the most important and vital systems of the human body. The main function of this system is to supply blood to the body, supply oxygen and nutrients, as well as to eliminate metabolic waste. The cardiovascular system is one of the main indicators of human health, and its condition and functionality affect the general health of a person.*

**Key words:** *heart, cardiovascular disease, diastole phase, organism, arteries, electrical system of the heart.*

The heart is an organ covered with muscle tissue that acts as a blood pump. It contains many complex structures and functions. The heart consists of four parts: two atriums (upper part) and two ventricles (lower part). There are valves between the atriums and ventricles that control blood flow and ensure the proper functioning of the heart. A characteristic feature of the heart is that it spontaneously contracts and relaxes rhythmically, a process controlled by the heart's electrical system. One of the main functions of the cardiovascular system is to ensure blood circulation. Blood is transported to all parts of the body through the heart. The movement of blood through blood vessels, arteries and veins is carried out. The arteries carry oxygen-rich blood from the heart to the body, while the veins return carbon dioxide and other waste products to the heart. This process is carried out in the diastole and systolic phases of the heart. During the diastole phase, the heart relaxes and blood accumulates in the atriums, while during the systolic phase, the heart contracts and blood is released from the ventricles.[1]

A number of factors are important for the healthy functioning of the cardiovascular system. First, physical activity increases the strength of the heart and improves blood circulation. Regular exercise strengthens the heart muscle and normalizes blood pressure. Secondly, proper nutrition ensures the health of the cardiovascular system. Fatty and salty foods, as well as high-calorie foods, increase the risk of heart disease. Therefore, it is recommended to eat foods rich in vegetables, fruits, unsaturated fats and proteins. Another important factor affecting the health of the cardiovascular system is stress. Stress conditions can disrupt heart function, increase blood pressure, and lead to cardiovascular disease. It is possible to improve heart health by using stress management, meditation, yoga, or other relaxation techniques. Cigarette smoking and alcohol use also negatively affect the cardiovascular system. Smoking cigarettes narrows blood vessels, increases blood pressure, and increases the risk of heart disease. Diseases of the cardiovascular system are very common and can cause serious problems. Heart disease, such as ischemic heart disease, heart failure, arrhythmias and other diseases, can threaten human life. These diseases are

often associated with factors such as high blood pressure, diabetes, overweight, sedentary lifestyle, and malnutrition. Therefore, it is very important to take preventive measures to maintain the health of the cardiovascular system. Preventive measures include regular medical examinations, monitoring blood pressure and cholesterol levels, and reducing risk factors affecting the cardiovascular system. Through medical examinations, it is possible to assess the condition of the cardiovascular system and, if necessary, take treatment measures. Such measures contribute to the early detection and treatment of heart disease, which improves the patient's quality of life.[2]

Another important aspect for the healthy functioning of the cardiovascular system is sleep. Adequate and quality sleep plays an important role in maintaining heart health. Insomnia or improper sleep patterns can negatively affect the cardiovascular system. Therefore, it is important to regulate sleep patterns, create the right sleeping conditions, and reduce stress. Psychological health is also important in maintaining the health of the cardiovascular system. Feeling good, mental stability and positive thinking have a positive effect on heart health. Stress management, positive thoughts and a positive attitude towards life improve the health of the cardiovascular system. The heart and cardiovascular system play an important role in the human body. Proper nutrition, physical activity, stress management, sleep, and maintaining psychological health are important for their healthy functioning. An established healthy lifestyle helps to prevent diseases of the cardiovascular system and increases the quality of a person's life. Everyone should pay attention to maintaining their heart health and take the necessary measures in this regard.[3]

The social environment is also important in ensuring the health of the cardiovascular system. Support from family, friends and society can create a positive environment and improve a person's mental state. Social interaction, friendship, and Mutual Assistance play an important role in maintaining heart health. Also, team sports events and activities bring people together and increase physical activity. The heart and cardiovascular system are an integral part of human life. For their healthy functioning, it is necessary to maintain a healthy lifestyle, proper nutrition, physical activity, stress management and psychological health. Organizations and states also play an important role in the prevention and treatment of cardiovascular diseases. A healthy heart and cardiovascular system are important not only for personal health, but also for the general well-being of society. To prevent diseases of the cardiovascular system, it is necessary to promote a healthy lifestyle, promote a healthy diet and physical activity. It is also important to carry out medical examinations and control heart health. All this ensures a healthy survival of humans and reduces diseases of the cardiovascular system.[4]

**Conclusion:**

The heart and cardiovascular system is an important system that ensures the vital activity of a person. For their healthy functioning, it is necessary to take into account all factors and take the right measures. Everyone should pay attention to maintaining their heart health and take the necessary measures in this regard. Only a healthy heart and cardiovascular system serve for a person to live happily and long.

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