

THE SPORT EXERCISES AND THEIR IMPACT ON CARDIOVASCULAR SYSTEM

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Abstract. The article reviews the presence of sport in the lives of people with diseases of the cardiovascular system. It was suggested options for alleviating the symptoms of heart disease through sports.

Key words: Cardiovascular system, health, sport, physical exercises.

The promotion of a healthy lifestyle, the formation in society of an adequate understanding of the benefits of physical activity, as well as the development of sports facilities and the equipping of training halls as an industry, have done their job and today the number of people involved in sports in one way or another has increased significantly. It must be admitted that playing sports today in the halls of fitness centers has become much more pleasant than before in stadiums or in the gyms of school institutions. In medicine the proportion of patients actively taking care of their health is slowly but growing. And this cannot but rejoice, since the patient's health is largely in his own hands.

However, with the wrong approach, physical activity can exacerbate certain diseases and problems with the cardiovascular system.

Sports have a positive effect on the cardiovascular system and are recommended to all people. During exercise a person's heart rate increases. This is due to the fact that muscle tissues require more oxygen and additional substances for their vigorous activity. Accordingly, in the body this is carried out by increasing heart rate.

During physical activity, adrenaline is released in the body in a small amount. Together with other components, this helps to strengthen the vascular wall and increase the tone of the cardiovascular system. The hormonal component, together with the active movement of blood through the vessels, as well as the energetic work of the heart, gives a good workout for the human body, and our heart is better prepared for stressful situations.

But not always physical activity helps to strengthen the body, sometimes excessive loads, especially with the wrong approach, lead to an exacerbation of chronic diseases and complications in the cardiovascular system.

Choosing an active lifestyle, we pursue some tasks such as: increasing the functional preparation of our body, improving the performance of internal organs, increasing psychological stability and adaptation to stress factors and loads around us daily. And if we talk about professional athletes, it is also the achievement of certain sports results and records.

With an increase in physical activity, the load on the cardiovascular system also increases proportionally. Muscles that perform excess work require an increased consumption of oxygen and nutrients as a source of energy, which must be delivered to each cell of our body by blood through vessels of different diameter. The volumetric perfusion rate (blood supply to the organs) of the internal organs

increases due to a compensatory increase in the contractility of the heart and an increase in the volume and strength of the blood ejected by the ventricles, which fully satisfies the growing needs of tissues for oxygen and nutrition [1].

Usually the minute volume of blood pumped by the heart is 4-5 liters, and during physical exertion this figure can increase up to 30-40 liters per minute. It follows from this that the increase in physical fitness and endurance of a person involved in sports directly depends on the state of his cardiovascular system and its capabilities. And the backup capabilities of this system are simply exceptional [2].

Performing physical activity in a trained athlete increases the efficiency of the cardiovascular system in the form of an increase in the stroke volume of the heart and heart rate, increased vascular tone and improved tissue microcirculation, while improving oxygen delivery by blood cells and removal of decay products from tissues. When the load is stopped in a fairly short time, the cardiovascular system should return to normal. And very often, it takes a beginner athlete quite a lot of time to normalize breathing, heart rate or blood pressure. Based on this, the first advice is the correct and competent selection of a training program and the mandatory definition of the goal of your training.

Episodes of physical and emotional activity during the day are replaced by episodes of relaxation and rest. And it is very important to maintain this balance between relaxation and excitement. This is especially needed by residents of large cities, where it is extremely difficult to find moments of peace in the cycle of city bustle. Therefore the next tip for active people is a full daily sleep. For daily work with regular training, a person needs to sleep at least 7 or 8 hours a day. This time is necessary for our body to relax and recuperate. After all, all body systems and especially the cardiovascular system reduce their activity during sleep. Pressure and heart rate decrease, breathing slows down and as a result, energy consumption sharply decreases. Also, between workouts, a novice athlete must clearly observe the time breaks necessary to restore muscle function, respiration, vascular tone, etc [3].

Otherwise, the efficiency of its loading will be minimal, and the results will be doubtful. An example is the formation of lactic acid in the muscles during exercise, the accumulation of which causes muscle fatigue and eventually stops it from working. And it can take hours, or even days, to remove it from the muscle.

Excessive exercise is not good for the body and for the cardiovascular system. If, according to the results of ultrasound of the heart, the doctor sees a slowdown in the heart rate or the formation of left ventricular myocardial hypertrophy, then in this case the person will receive recommendations to stop or reduce the intensity of physical activity.

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