

INFLUENCE OF PHYSICAL EDUCATION AND SPORTS ON THE HUMAN BODY

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Abstract:

Caring for health and strengthening it is a natural need of a cultured person, an integral element of his life.

Health is a complex and at the same time holistic, multidimensional dynamic state that develops in the process of realizing genetic potential in a specific social and economic environment and allows a person to perform his biological and social functions to varying degrees.

According to the World Health Organization, health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity.

Keywords: Health, physical education, lifestyle, activity, sport.

Introduction

A sedentary lifestyle is not always associated with office work. This definition includes the habitual rhythm of housewives, pensioners and people who do not receive sufficient physical activity during the day. Until recently, an “active” lifestyle was considered to be one in which at least one hour a day was devoted to sports. But the results of recent research have clearly demonstrated the fact that such a concept should be abandoned. The fact is that it is the amount of time spent in a passive state that negatively affects health. It doesn't matter whether you spent an hour on general exercise or not. Of course, even morning exercises will have a positive effect on the situation, not to mention serious training!

A sedentary lifestyle “helps” muscles degrade, weakens the cardiovascular system, and leads to weight gain (even obesity). This brings with it additional problems. The cardiovascular system, which is accustomed to a slow pace of work, will easily fail. When muscles, joints and ligaments are not in good shape, you risk getting injured literally out of the blue. A sedentary lifestyle is a factor in the development of diseases that affect most of the urban population today. If we take any disease of a modern person as an example, then in the list of reasons for its occurrence you will definitely see a sedentary lifestyle.

Each of us has one health and buying it even for a lot of money is very problematic. Moreover, this is not always possible. Correlate your lifestyle not only with the key goals that are set for you, but also with taking care of your own body. Otherwise, all efforts will be in vain.

Thanks to physical education, a healthy lifestyle is formed, a person's overall health is strengthened, and the body is able to more diligently protect itself from negative environmental factors and the fast pace of life.



Sport can influence a person both positively and negatively. It is important to find your rhythm and distribute tasks wisely. It seems that everything has already been said about the positive impact of physical education, but, unfortunately, people who do little sports often forget what value it can bring.

Musculoskeletal system. Bones become stronger and more resistant to stress. Muscle volume and strength appear. During any of the active sports, the supply of oxygen to the muscles improves, capillaries not used in the normal state of the body are activated, and new blood vessels appear. Frequent exercise prevents the occurrence of various diseases of the organs of support and movement, including osteochondrosis, atherosclerosis and others.

Strength and development of the nervous system. Thanks to the variety of exercises and the speed of their implementation, coordination of movements improves. Regular training develops new reflexes in the body. The speed of nervous system processes increases, the brain begins to respond faster to external stimuli and make the right decisions.

Respiratory function. During heavy training, the body needs more oxygen and the volume of air entering the respiratory organs increases by more than 10 times. Thus, the lungs become more capacious.

Immunity and improvement of blood composition. There are more red blood cells and lymphocytes, and their task is to eliminate harmful factors entering the body. People who lead an active lifestyle are less susceptible to virus attacks.

Attitude to life. People who lead an active lifestyle are less susceptible to mental imbalances and depression. Their body is always in good shape and they are more cheerful.

The cardiovascular system. Some of the most dangerous and common diseases in our time are diseases associated with the heart and blood vessels. To live a longer, healthier life, it is important to adapt your vital organs to your environment through exercise.

The effect of sport on the cardiovascular system is as follows:

- An exerciser's heart is more than half its normal size, which increases its efficiency.
- Lower blood pressure due to calmer heart function without physical activity.
- The risk of heart attack is significantly lower.
- Elasticity of blood vessels.

Swimming exercises have the greatest benefits for strengthening the body.

Digestion. Physical activity and regular training stimulate digestive processes and cause a greater need for nutrients in the body.

But if you eat before physical activity, it will, on the contrary, slow down the digestive system. Processes are slowed down because blood redistribution occurs with intense loads. Digestive juices and enzymes are released more slowly due to lack of blood in the digestive glands.

If you start training immediately after eating, muscle work will slow down the digestive system, but the food that is still digested will negatively affect the result of physical activity. Therefore, after eating, before playing sports, you need to take a break of at least two hours. Also, carbohydrates should be present in the food; they can be quickly absorbed and digested; you should not take pills before physical activity. In most cases, food will simply sit in the stomach without moving while the workout takes place, this should not be allowed.



Development of brain activity. Muscle work creates a feeling of lightness, vigor and satisfaction. The nervous system also improves and develops. This is due to the fact that during physical activity coordination actions are constantly manifested. Sports activities have a positive effect and contribute to the formation of new conditioned reflexes. Together with physical activity, the brain adapts to quick and informed decision-making and learns to respond faster to stimuli.

Thus, the health-improving effect of mass physical education is associated primarily with an increase in the aerobic capabilities of the body, the level of general endurance and physical performance. An increase in physical performance is accompanied by a preventive effect in relation to risk factors for cardiovascular diseases: a decrease in body weight and fat mass, cholesterol and triglycerides in the blood, a decrease in LIP and an increase in HDL, a decrease in blood pressure and heart rate.

Medical statistics show how sports and children's health are connected. According to doctors, 70% of frequently ill children and adolescents do not play sports and often skip physical education lessons. Mental stress at school, constant sitting at the computer or in front of the TV at home lead to the fact that the body does not receive physical relaxation.

This contributes to functional disorders and turns schoolchildren or students into "young old people", susceptible to a wide variety of diseases that were previously more often diagnosed in older people (pathologies of the skeletal system, vascular and heart diseases).

The influence of physical education and sports on the body of schoolchildren and students is invaluable - it is young and growing people who need constant loads and movement. The sedentary lifestyle of modern children is of extreme concern to doctors and teachers.

Damage caused to health as a result of professional sports.

Problem No. 1 - cardiovascular system

"Athletic heart" syndrome, when the heart muscle develops so much that it is able to pump 140–160 ml of blood. For example, for an ordinary person this figure is 50–60 ml. Heart contractions in athletes can reach 180 beats per minute, in a person under extreme stress - only 130 beats per minute. Obviously, under such overloads, both the heart and blood vessels wear out very quickly, in a matter of years.

Problem No. 2 - Metabolism

It is generally accepted that with increased blood circulation, metabolism occurs faster, but in fact only those centers of the nervous system that are responsible for motor activity are stimulated. All other zones are, on the contrary, suppressed. This is a consequence of irritability, incontinence, and depression.

Problem No. 3 – muscles, spine

Almost all muscle groups are subjected to enormous overloads, not counting the heart, and along with them the tendons and joints. Cartilage tissue experiences particular stress - it wears out, and even a young athlete experiences pain.

Problem No. 4 - the endocrine system

Athletes often win thanks to high levels of adrenaline in the blood. The release of this hormone increases 8 times and addiction gradually develops. By giving up professional sports, a person will experience an imbalance of hormonal functions.



Problem No. 5 – nervous system

To achieve your goal, regular training is necessary. The greater their number, the greater the waste of nerves. Subsequently, this can lead to nervousness and other diseases. Research results show that a large number of amateurs, exercising without the supervision of a specialist, take on too high a load. Why are they often susceptible to depression? Relaxed physical education classes have positive results. This was proven as a result of an experiment on mice. Those who voluntarily spun the wheel had positive emotions, unlike those mice that were forced to spin the wheel until they completed the required path.

Problem No. 6 – Injuries

Engaging in professional sports is inevitably associated with injuries: since during training the body is exposed to short-term periodic loads that are on the verge of the athlete's endurance, there is an extremely high risk that the musculoskeletal, nervous or any other system will not be able to respond properly at a certain moment to the received load. Of course, to avoid such a situation, athletes use a special training style that allows them to achieve a given goal with minimal effort. Professionals also adhere to recovery programs. But during the period of intense training before the next competition, the athlete is forced to increase the intensity of training, which increases the risk of injury. But you should also understand that despite all the dangers associated with professional sports, amateur sports can bring extremely many benefits to human health.

The positive aspects of amateur sports are:

Benefit 1 – Improved muscle tone

Muscle tone is the uncontrolled tension of muscle fibers, which results in their contraction while in a relaxed state. Muscle tone is not accompanied by fatigue. Muscle tone is an important indicator that allows one to judge the level of condition of a person's muscle corset. When the neurons responsible for tonic tension are damaged, its disorders occur: hypotension or muscle hypertension.

Benefit 2 - Increased strength and endurance

As a result, playing sports entails an increase in these indicators. Endurance allows a person to perform work for a longer period of time that requires greater physical effort.

Benefit 3 - Increased immunity

A person's resistance to disease largely depends on this quality of the body. Sport directly affects its strengthening: during training, the average body temperature rises, which contributes to the death of harmful bacteria and viruses. Also, during sports, blood circulation accelerates, the flow of which cleanses organs and tissues. According to statistics, an adult gets colds two and a half times a year. Those who regularly exercise are 45% less likely to get sick.

Benefit 4 - the musculoskeletal system is strengthened.

With age, a person increasingly experiences degenerative changes in joints, ligaments and muscles. This leads to many diseases of the spinal cord: atrophy of the muscles and cartilage of the spine, osteoporosis, and diseases of large joints. Regular loads that occur during training provide the load that the skeletal system needs and contribute to its strengthening.

Benefit 5 - weight normalization

As human well-being increases, the problem of obesity also increases. Almost throughout history, humanity has been in a state of permanent hunger, and when at the end of the twentieth century this problem appeared in developed countries, it was not given due attention at first, but soon it led to an increase in heart diseases, diabetes, and diseases of the endocrine system. Playing sports helps burn excess calories during exercise, and they are also spent during muscle recovery after strength training.

Professional sports and health are absolutely incompatible concepts, because the influence they have on the human body is diametrically opposed.

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