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Effects of Exercise on The Human Body

Буранов Илхомжон Комилович
Преподаватель кафедры «Общественных дисциплин и физической культуры»
Ангренского университета

Abstract
Exercise has a significant impact on a person's health and well-being. They help strengthen muscles, improve fitness, and reduce the risk of developing many diseases. Regular exercise also improves the functioning of the cardiovascular and respiratory systems, promotes weight loss, improves metabolism and maintains normal blood sugar levels. In addition, exercise improves overall well-being and quality of life.

Keywords: : Exercise, health, human body, cardiovascular system, respiratory system, metabolism, musculoskeletal system, weight loss, general well-being, quality of life.

Introduction

In the modern world, with the advent of various gadgets that facilitate work (smartphones, computers, cars), people's physical activity has decreased.

This has led to a decrease in human physical performance and various diseases. Therefore, both in mental and physical work, it is necessary to engage in health-improving physical culture and strengthen the body. Constant nervous and mental overstrain and chronic fatigue without physical discharge cause severe functional disorders in the body, a decrease in performance and the onset of premature old age.

In combination of work and rest, normalization of sleep and nutrition, rejection of bad habits, systematic physical training increases the mental, mental and emotional stability of a person. Physical exercise increases the activity of metabolic processes. Working muscles need more oxygen and nutrients, as well as faster removal of metabolic products. This is achieved by the fact that more blood flows into the muscles and the speed of blood flow in the blood vessels increases. In addition, the blood in the lungs is more oxygenated. In trained people, the heart adapts more easily to new working conditions, and after the end of physical exercise, it returns to normal activities more quickly. Number The contractions of a trained heart are smaller, and therefore the pulse is less frequent, but with each contraction, the heart ejects more blood into the arteries. With less frequent heart contractions, more favorable conditions are created for the heart muscle to rest. As a result of training, the work of the heart and blood vessels becomes more economical and is better regulated by the nervous system. Physical work contributes to the general dilation of blood vessels, normalization of the tone of their muscular walls, improvement of nutrition and increase of metabolism in the walls of blood vessels.

Strenuous mental work, sedentary lifestyle, especially with emotional tension and bad habits, cause an increase in tone and deterioration of nutrition of the walls of the arteries, loss of their elasticity. During physical exertion, up to 2500 capillaries open per 1 mm of cross-section, compared to 30 - 80 at rest. Therefore, in order to maintain health and performance, it is necessary to activate blood circulation through physical exercises. Cyclic exercises, such as running, swimming, skiing, skating, and cycling, have a particularly beneficial effect on blood vessels. During physical training, the number of red blood cells and lymphocytes in the blood increases. One of the proofs is that as a result of physical exercise, the body's defenses increase, the body's resistance to infection increases. People who regularly engage in physical exercise and sports are less likely to get sick, and if they do, they are more likely to tolerate infectious diseases in most cases.

When muscles work for a long time, the amount of sugar in the blood decreases. Regular exercise reduces cholesterol in the bloodstream and activates the anti-clotting system, which prevents the formation of blood clots in the vessels. At rest, a person makes about 16 breaths per minute. With physical exertion, due to the increase in oxygen consumption by the muscles, breathing becomes more frequent and deeper. The amount of air passing through the lungs in one minute increases from 8 liters at rest to 100-140 liters when running fast, swimming, skiing, and the body receives more oxygen. In resting muscles, most of the blood capillaries surrounding the muscle fibers are closed to blood flow and blood does not flow through them. During work, all capillaries open, so the blood flow to the muscle increases more than 30 times. In the process of training, new blood vessels-collaterals are formed in the muscles.

Under the influence of training, the chemical composition of the muscle also changes. It increases the amount of substances whose breakdown releases a lot of energy: glycogen and phosphagen. In trained muscles, glycogen and phosphorus compounds, which break down during the contraction of muscle fibers, are restored faster, and oxidative processes are more intensive, muscle tissue absorbs and uses oxygen better. Physical exercise has a positive effect on the entire musculoskeletal system, preventing the development of degenerative changes associated with age and physical inactivity, bone mineralization increases, ligaments and tendons become stronger.

Systematic physical exercises in adulthood and old age allow you to maintain beauty and slimness for a long time.

CONCLUSION

Movement is the basis of all human life.

Physical exercise is an effective preventive measure that protects a person from both diseases and premature old age.

Exercise:

- stimulate metabolism, tissue metabolism, endocrine system;
- increasing immunobiological properties, enzymatic activity, contribute to the body's resistance to diseases;
- have a positive effect on the psycho-emotional sphere and improve mood, have an anti-stress effect;
- They have a tonic, trophic, normalizing effect on the body and form compensatory functions.

The great importance of physical exercise lies in the fact that it increases the body's resistance to a number of different adverse factors. Low atmospheric pressure, overheating, some poisons, radiation, etc. Physical exercise helps to maintain vigor and cheerfulness.

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