MORPHOLOGICAL AND PHYSIOLOGICAL FEATURES OF THE ORGANISM OF PUPILS AND STUDENTS

Khajimatov Ravshanbek Sabirjonovich

Andijan State Medical Institute

Assistant of the Department of Social Hygiene and Public Health

Abstrakt: The article provides information about the morphological and physiological features of the body of students

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Public educators are faced with the task of improving the quality of educational work, ensuring a high scientific level of teaching, instilling a love of work, improving ideological and spiritual education, achieving aesthetic and physical perfection. The main task of the school is to ensure the full implementation of labor, education and vocational training. In order to properly organize the work of educating the younger generation on a scientific basis, every health worker and educator must have a thorough knowledge of the developmental characteristics of the body of children and adolescents. As mentioned above, the body of children and adolescents differs from the body of adults in anatomical and physiological features, continuous growth and development. External and internal factors have a major impact on growth and development. It is known that the condition of each member affects the other members to a certain extent. In particular, the fluffy development of the respiratory organs affects the functional state of the cardiovascular system, which in turn affects the development and function of the respiratory organs. There is a similar relationship in the training of members or systems. Proper functioning of the skin and related organs is important for the healthy development of the child. Numerous receptors on the skin of the body communicate with the external environment of the organism, ensuring its adaptation to changes in this environment. The skin of the body performs a protective function, protecting organs and tissues from damage, preventing the entry of microbes, water and dissolved toxins into the body. The bactericidal

function of the skin in open and closed areas of the body is well developed in children, including 7-9-year-old students. The bactericidal index (number of microbes killed) is 85-81% in autumn and spring, and decreases to 58% in winter. The bactericidal function of the skin of the body reflects the state of immunological reactivity of the organism. In children and adolescents lagging behind in physical development, the bactericidal function of the skin is much lower than in their peers at all times of the year. Receptors are involved in the regulation of heat in the body, which is of great importance in exercise. As mentioned above, vitamin D is synthesized from 7-8 dehydrocholesterols under the influence of ultraviolet light on the skin of the body. vitamin D is involved in regulating the metabolism of calcium and phosphorus salts. In children, the surface cells of the stratum corneum are easily migrated. These are arranged in 2-3 rows and are more loosely connected to each other. The horny layer of the skin with the epidermis of the body is the same in a 7-year-old child as in an adult. The activity of the sebaceous glands gradually increases by the age of 15-16 years and by the age of 18 it remains the same as in adults, the sweat glands are more in children under 7 years of age than in adults, and then decrease. Bone tissue is formed and gradually replaces the connective tissue. Many of the organic elements in children's bone tissue change shape when they are exposed to the body for long periods of time due to the highly flexible nature of the skeleton, or when the child's body is held incorrectly. Some bones of the pelvis, including the skeleton, will not be completely joined together. Only at the age of 17-18 do the bones of the pelvis, pelvis, and pelvis join together to form a single "nameless" bone. The bones of the palm of the hand, that is, the wrist, are just beginning to appear in the baby. These develop gradually and become bone when the child is 10-13 years old. The finger phalanges can also become bone at the same time. When teaching children to write and the simplest labor skills, it is necessary to take into account these features of the hand claws, especially in the first year of study, not to strain them with written work. The muscular system of children is integrated with the skeletal system, which together provide human movement. The major muscles in the body, mainly

the back, shoulder, hip muscles, etc., develop first of all. In 6-7 year olds, these are much better developed, but the small muscles, such as the limb muscles, are still underdeveloped. For this reason, infants learn basic natural movements such as walking, running, jumping, and throwing much later, and perform small and precise movements with greater difficulty. At the age of 9-12 years, children are able to independently distribute the load on different muscle groups, their movements become more coordinated and adapt to the rhythm. The musculoskeletal system develops as the child grows. For example, in a baby, all muscle mass is 23% of body weight, in an 8-year-old child it is 27%, and in a 17-18 year old it is 43-44%. Muscles gain weight, and strength increases accordingly, resulting in the body's ability to function for a longer period of time. At the same time, the movements become more cohesive and complex, and the ability to control the body is formed. Not only the muscles of the child, but also the central nervous system develops depending on the formation of motion analyzers. The upper respiratory tract of children is much narrower than that of adults, the tissues of the respiratory organs are thin, the mucous membranes are abundantly supplied with blood and lymph vessels, and the spleen is injured. This is also due to the fact that more dust and pathogenic microorganisms enter the respiratory tract. Inflammatory processes in the nose create a very favorable environment for the entry into the body of microbes and toxins that cause infectious diseases due to inhalation through the mouth. As a result, the child may suffer from bronchitis or pneumonia. The lungs go through several stages of development. Inflammatory processes are more common in children because of the abundance of interstitial tissue, lymphatic vessels, and receptor bronchioles in children's lungs. For these 195 reasons, the air in children's institutions must always be clean, for which the rooms must be well ventilated and wiped with a damp cloth. Children need to be taught to breathe deeply and evenly through the nose. A child's heart grows vigorously by the age of 7, and from the age of 7 to 10, the size and volume of the heart gradually increase. During this period, the base tissue of the heart is well formed, and the central and peripheral nervous system is well developed. A 7-year-

old child's arteries are much wider than an adult's, which is why blood pressure is slightly lower. The amount of blood delivered to the cells every minute must correspond to the need for oxygen. Each time the heart beats, the amount of blood flowing into the arteries is less in a child than in an adult. This is why a child's heart beats more every minute than an adult's heart. The number of heartbeats in children of small school age is more stable than in children of preschool age. However, sudden movements increase the number of heartbeats in young school-age children in a variety of emotions. At the age of 12-15 years, heart weight increases rapidly. By the age of 15, the heart weight increases 15 times more than the initial weight, the heart volume does not correspond to the vascular pathway, because the vessels develop more slowly than the heart volume. Such a development makes blood circulation somewhat difficult, and therefore blood pressure rises slightly as muscle activity increases. Adolescents should be careful when exercising and physical labor, as their heart is overly excited. White blood cells play an excellent protective role in the fight against infectious diseases in the body. As the baby grows, the blood-forming organs become strained and very sensitive to the adverse effects of the external environment. Inadequate outdoor use of children, overexertion, and some violation of hygiene requirements often lead to anemia. It is necessary to adjust the eye in a certain way in order to see clearly what is standing near or far. This feature of the eye is called accommodation. Accommodation is due to a change in the shape of the eyeball, a person flattens the eyeball more than what is standing nearby, and flattens when he sees things that are far away. The eye's ability to adapt to seeing objects at different distances changes with age. In children, the eyeball changes its shape quickly because it is more elastic. Preschoolers, especially those who have just started school, spend more and more time drawing, cutting and pasting different shapes, writing and reading. They work with their heads slightly tilted during training. As the exercise lasts longer, it becomes more difficult for blood to circulate through the retina, so the intraocular pressure increases and the anterior-posterior axis of the eye gradually lengthens. Thus, if the education in children's institutions, schools,

lyceums and colleges is organized without taking into account the anatomical and physiological characteristics of the child and the requirements of hygiene, it can lead to various negative changes in the development of the organism

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