

EFFECTS OF PHYSICAL EDUCATION EXTRACURRICULAR ACTIVITIES ON THE FUNCTION OF THE BODY OF CHILDREN AND ADOLESCENTS

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ANNOTATION

In the article, the analysis of special literature related to the effect of physical exercises on the functional state of the body and the content of special theoretical knowledge and practical skills related to the problem in the lifestyle of students of our country is systematized. It is intended for future bachelors, masters, school social education teachers and sports coaches.

Keywords: Body function; mental state; physical tattoo, physical development, physical fitness, somatic state of the body; extracurricular activities; educational activities; training sessions; cardiovascular system; respiratory system; metabolism; endocrine system; nervous system; acceleration and braking.

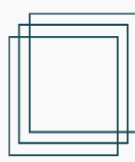
The development of children's and adolescents' body, its physical fitness - in other words, its physical status, especially the teaching of the theoretical foundations of the knowledge related to the morphology of organs (Sh.Kh. Khankeldiev, S.R.Uraimov, 2020) is excellent teaching in the state programs of all educational institutions of the educational system. the demand of the day.

Exercise classes and the theoretical knowledge and practical skills provided in them are distinguished by their specific aspects at different ages of a person's life. That is why it is important to teach the knowledge of the effects of physical exercises on the body as a subject of physical education in the general education schools of our Republic from the 1st to the 11th grade. The main goal of our article is to systematize the knowledge of extracurricular activities related to the functional preparation of the student body and the theoretical knowledge of their teaching in a general education school. We have learned that this issue has not been studied at the level of our Republic, taking into account the territorial conditions of our country, through specific literature and scientific research materials related to the field (M. Ismoilov. 1979, N.M. Krasnogorsky, 1981, etc.).

Currently, it is the state order of the President of our country and our government to maintain the health, physical development and physical fitness of the young generation at the appropriate level, and to maintain (maintain) the level of body parts and structures achieved through physical exercises during the specified period of their life, and to enrich and improve their knowledge reserves. constitutes a system of knowledge about the functional state of the organism of the "Healthy lifestyle physical culture" that has been promoted to the state policy.

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The period of childhood and adolescence is a period of complex changes in organs and structures. First of all, during the period of extreme development and growth, the stress of nervous, endocrine, cardiovascular and other organs is the main requirements of the functional state of the body. corresponds to the period.

Physical education classes. other forms of physical exercise training, including extracurricular physical education training at school and extracurricular training, training sessions, clubs, sports sections, general physical fitness training, optional school activities that are independently engaged in free time in children and adolescents, use a lot of energy and mental causes tension. It is distinguished from others by the amount of physical load given to the body, which causes it to feel a little hurt, tendency to emotional tenderness, high excitability process compared to agitation, braking, activeness, instability, jitteriness and a little sweating of the body.

The famous physiologist N.M. Krasnogorsky (1981) distinguishes 4 types of the nervous system in children and adolescents:

- a) optimal-excitabile, slow-fast;
 - b) optimal drive, pressure, but slow;
 - c) strong, very excitable, unstoppable, unstable;
 - g) groups the mental functional system of the organism as slow, weak excitable ones.
- The activities performed in physical exercise classes (physical exercises) require special attention in the mentioned mental types.

Analysis of special literature, some changes occur in the work of internal secretory glands (endocrine) during childhood and adolescence.

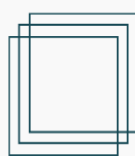
The hypophysis and gonads are activated, and the activity of the thymus and thyroid glands stops.

Secondary sexual characteristics begin to appear. Sex hormones in the body. strengthens metabolism in muscles and other internal secretion glands. In girls, the beginning of the menstrual cycle (from 12 years, 7 months to 14 years) is a sign of puberty.

During this period, the heart begins to grow rapidly, and by the age of 14, its volume increases by 6 times, and by the age of 18, it increases by 12 times. In childhood, the ratio of heart volume to body volume is 1:50, in adults - 1:60, and in adolescents - 1:90 during puberty.

The effect of physical exercise on the volume of the heart and blood vessels in adolescents in relation to their height (body length), weight and chest circumference increases more evenly and in parallel, but very strenuous physical activity leads to a sharp and rapid increase in the size of the heart (hypertrophy occurs).

In adolescence, the heart rate (pulse - YuQCh) decreases, 70-75 beats per minute. In children, the frequency of veins is rarer than in girls. Arterial pressure is 100-125, venous pressure is 60-80.



In adolescence, the respiratory system develops rapidly: the chest expands, breathing deepens. The vital capacity of the lungs increases from 2600 to 4900 ml in boys from 13 to 18 years, and from 2471 to 3500 ml in girls. Breathing speed is up to 20 times faster than that of adults. Physical exercise and physical labor increase lung ventilation.

Musculoskeletal system develops with effort. At the age of 14, it grows sharply, and at the age of 12-17, it accelerates. At the age of 13-15, the average growth is 7-8 cm. The growth of girls starts 2 years earlier and grows up to 6 cm in a year.

Muscle mass increases, in adolescents at the age of 15-16 it makes up ZZ% of the body weight, and at the age of 18 it is 44%

As the muscle mass increases, the tension of the muscles of the arms and legs increases. At the age of 14-15, the strength of the plantar muscle increases, and at the age of 16-18, the strength of the knee joint muscle increases. Heavy loading can flatten the arch of the foot in a teenager and lead to flat feet.

The average annual weight gain during adolescence is 3-5 kg. Visual acuity increases from 0.9 to 1.2 diopters at the age of 14-15 years.

Anatomical-physiological characteristics of childhood and adolescence are characterized by an active course of morphological-physiological reconstruction of the organism, and theoretical knowledge in this field is a necessity for everyone.

The shape of the body of the population of our country is evaluated by indicators of its physical development and physical fitness. Depending on the shape of our body, its profession and work activities are chosen.

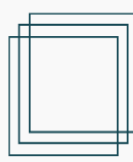
In sports activities, the tools of physical culture training of a healthy lifestyle are selected, and in educational institutions, the topics of physical culture education are coordinated.

In the history of mankind, among the people of the world, the Ancient Greeks were confused about the "ideal body shape". the concept has its basis (E.Ya Bondarevsky, Sh.Kh. Khankeldiev 1986; A.Abdullaev (2017) and others;)

Height and stature are important indicators of the physical culture of our people, which determine the level of appearance. Physical fitness is physical fitness. working of the control system is one of the problems that need to be solved in the theory and methodology of physical education.

Fundamental research on the problem awaits its opportunity. Because it is known from physical education and sports practice that the shape of the body of children and adolescents (height, weight, proportion of body dimensions) has different effects on the functional result to be achieved by performing a number of sports exercises. (Krechmer, Shildon, Bunak, Galand, etc.)

For example, it is no secret that the shape of a child's body directly affects the quality of his strength. That is why body weight is taken into account in boxing, weightlifting and other individual wrestling competitions.



It has been proved that if the differences in the morphological shape of the child's body are not taken into account, great inaccuracies are allowed in the assessment of physical fitness.

Research on aspects of the negative role of body shape in determining the level of physical fitness (E.G.Martirosov, 1968; G.S.Tumanyan, 1971; E.Ya.Bondarveskny, Sh.Kh.Khonkeldiev, 1986) exists and has been conducted. However, due to the fact that the objects of their research were conducted in the children of the central regions of the former Union, the relevance of the problem increases if we take into account that the results of the research can be partially applied to the children of the regions of our country.

In our research, we found that there are various possibilities that eliminate the influence of the importance of body size and shape on the results of indicators of physical fitness.

For example, we have chosen such control exercises, when performing them, as a result, the effect of jussan is significantly reduced, or we have achieved relative accuracy in evaluating physical fitness indicators by using special evaluation indices and scales for people of different body types.

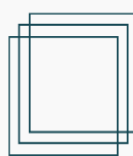
The history of initial research on the problem dates back to the 20s of the last century. The search is still ongoing. The last V.P. Held by Guba in 1982. In the individual development (ontogeny) of the organism, the improvement of the child's ability is considered to be the period of improvement of the central nervous mechanisms of movement control in the organism, the development of the nervous movement apparatus, in some studies it is believed that the growth of the body occurs through the individual development of its shape.

For example, it is now practically and theoretically proven that the result of a child in high jump is due to the improvement of coordination of movement, properties of muscle contraction, as well as an increase in body length.

When choosing a talented sportsman, the relationship between his physical development and training characteristics can play a key role. It is necessary to take into account the importance of this problem, especially in creating a system of norms for assessing children's physical fitness, in individualizing the process of physical education, and further improving the requirements and norms of an individual's physical fitness test (2020).

Because the result of a series of physical exercises is related to the overall body shape. For example, heavy children have an advantage in throws, while short (tall) children have an advantage in pole vaulting.

It has been proven in the studies of Zatsiorsky (1979) E.Ya.Bondrevsky, Sh.Khonkeldiev, that the results of physical exercises determined by "relative strength", for example, when pulling on a horizontal bar, are superior to small children compared to adults.



In the theory and practice of physical education, two methods are used to eliminate such unpleasantness in the assessment of the final results of physical fitness testing. In the first method, testing consists of movement tasks in such a way that the morphology of the body structure does not affect the assessment of the final results. However, doing so creates many difficulties. The reason is that the exercises listed are very few, and those that exist are familiar physical exercises that have to be excluded (for example, throwing, high jumps).

As well as exercises performed by overcoming the resistance of the body's mass. In order to study the effect of the results of running 60 m, long jump, and throwing a tennis ball on some signs of physical development, in our research conducted with children of 29 general schools of the city of Margilan, about 80 9-18-year-olds engaged in physical exercises only in the physical education program (2020), sexual development we found out that the figure of children under the age of puberty does not have a significant effect on the results, and from the period when sexual development begins, it has a sharp effect on the indicators of physical fitness. We observed that the effect on the result decreases significantly with age.

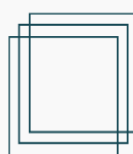
We have observed that the total (general) body mass has a dramatic effect on the results of strength, speed and throwing, movement coordination and power exercises in girls aged 10 to 13 years, compared to boys.

Currently, in our country, fundamental research in this direction of the problem is waiting for its opportunity.

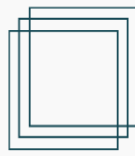
In conclusion, it is worth noting that the knowledge of the impact of physical training on individual parts, organs and structures of the organism and other functions is not only included in school training, but the impact of more than ten different forms of physical training from physical education to extracurricular activities has not been fully studied.

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