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MAINTENANCE AND DEVELOPMENT OF PHYSIOLOGICAL INDICATORS IN ATHLETES

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Abstract: *The methods of performing and implementing exercises, the duration of rest between workouts and exercises in the physiological direction is based on a quick analysis of the dynamics of the adaptation phases. Everyone involved in athletics, walks, runs, jumps and throws, improves the functioning of organs and systems throughout the body, restores impaired activity, increases mental and physical activity. Maintaining these indicators is an urgent physiological problem, and this article will discuss these indicators.*

Key words: *education, sport, athletics, result.*

Аннотация: *Методика выполнения и выполнения упражнений, продолжительность отдыха между тренировками и упражнениями в физиологическом направлении основана на экспресс-анализе динамики адаптационных фаз. Все, кто занимается легкой атлетикой, ходит, бегает, прыгает и метает, улучшает работу органов и систем во всем организме, восстанавливает нарушенную деятельность, повышает умственную и физическую активность. Поддержание этих показателей является актуальной физиологической проблемой, и в данной статье речь пойдет об этих показателях.*

Ключевые слова: *воспитание, спорт, легкая атлетика, результат.*

The importance of the topic. Physical education and sports play an important role in the formation of a physically and mentally healthy young generation. Attention to the development of physical culture and sports in our country has increased at the level of state policy. The laws adopted in this regard open wide opportunities for the development of physical culture and sports. For people of different ages, movement is an indicator of a full life and activity. As a result of human walking and running, energy consumption increases and the supply of blood, oxygen and nutrients to tissues and cells improves. The structure of the heart muscle is strengthened, the work of the endocrine glands and the nervous system, which control the body, is activated. One of the urgent problems is the choice of functionality, the disclosure of the potential of the child from childhood, the choice of the right loads based on management. [1]

From the first days of independence of the Republic of Uzbekistan, great attention is paid to the participation of the younger generation in sports. Creating a healthy lifestyle in our country, creating modern conditions for regular physical culture and mass sports of the population, especially the younger generation, strengthening the health of young people through sports competitions, confidence in the will and opportunities of physical development, courage and patriotism. Extensive work is underway to improve the system of selection of talented athletes, as well as the further development of physical culture and mass sports. In this regard, on March 20, 2019, President ShavkatMirziyoyev announced that one of the five initiatives to raise the morale of young people and organize their leisure time is aimed at creating the necessary conditions for young people to demonstrate their abilities in the field of sports. It has a positive effect on the growth of longevity, thereby increasing the activity of man in society, the formation of a stable economy of society.(1) Along with the mental and moral upbringing of our youth, the role of physical education, which plays a key role in the formation and development of their organism, is invaluable. Indeed, the future of the country is closely linked with the development of our youth, who work in harmony, both mentally, spiritually and physically. [3]

The Olympic Games are the most prestigious and significant competitions of our

time. Athletics has always been represented in the program of the Olympic Games, from the games in Ancient Greece to the modern Olympic Games. Today, track and field athletics remains the most representative sport in the program of the Olympic Games. At the 2020 Olympic Games in Tokyo (postponed to 2021), the competition program will include 49 athletics disciplines [4].

Athletics is one of the most ancient sports, which today remains the most popular and loved on all continents. It is one of the most accessible and democratic sports [4]. Athletics is one of the most popular sports in terms of the number of people involved. The simplicity and accessibility of athletics exercises allows athletes from different countries and continents to participate in competitions and achieve success. Today, athletes from developing countries are able to compete and beat athletes from developed countries in athletics competitions [5].

During the entire existence of the modern Olympic movement, the athletics program has undergone significant changes, which are an actualizing factor for studying the accumulated historical experience, for assessing further prospects for its development. [6]

The main objectives of the program "Content of the modernization of the system of continuous education and increasing the efficiency of education to a new level in 2008-2012", developed with the aim of deepening reforms in the education system within the framework of the "National Training Program": expanding the scope of scientific research in the field of pedagogy, opening a wide range of research on pedagogical diagnostics, an individual approach to the student's personality, the introduction of a comprehensive support mechanism; achieving high results in the process of long-term training is also a priority to become a competitive athlete in the future, striving for the goal in training, confirms the desirability of starting a calculated learning process from childhood. [7]

The most urgent problem today is the development of students of some types of athletics: running at various distances and long jumps, high and long jumps, javelin,

discus and all-around, improving the physical shape and physical qualities and the training process of athletes. In modern high-performance sports, loads are carried out within the limits of biological capabilities. As a result of regular athletics, walking and running exercises, the bone structure is strengthened, the joints become mobile, muscle strength increases, and metabolism improves. In addition, walking and running exercises help in the formation of correct posture, regulation of metabolic processes, blood circulation and respiration, as a result, his physical condition improves and his health improves.

At the same time, attention was drawn to the activities of teachers who are currently effectively teaching athletics and methods of teaching it at the faculty. The degree of resistance to fatigue during exercise in training activities is called the quality of endurance.

The main means of developing general endurance is a long run with low intensity. This creates favorable conditions for expanding the functional "boundaries" of all organs and systems and ensures their high level of organization.

Other effective means of developing endurance are various cyclic exercises and outdoor sports.

An effective way to develop general endurance is to run the course in a rhythmic, varied way.

Special strength develops in two directions. General endurance, developed using activities with a more cyclic nature, endurance is developed through training, tools that are specialized in the types of exercises that the student specializes in.

Another feature is that special endurance exercises are performed at a pace close to the competition. [8]

It should be noted that the training of the physical qualities of student-athletes, in particular, makes it possible to develop dexterity, strength, speed, endurance. This is necessary for the daily work and educational activities of athletes. In athletics, the process of learning the technique of running 400 meters was observed. The performance of each task given by the teacher to the students was monitored and

analyzed. It was noted that there were differences from previous results obtained after this exercise. For all indicators, the results were found to be higher than the pre-load results. In particular, it was noted that blood pressure and the number of breaths per minute varied depending on the time when the students ran 400 meters. During running, all muscles are in active movement. There is a strong excitement, especially in the muscles of the legs. However, it is important to detect the occurrence of movements in the left and right muscles of the forearm, especially in cases after exercise. It was at this time that the strength of the right and left shoulder muscles was determined to determine the level of muscle strength. [9]

At the same time, in the postoperative period, there was a slight decrease in the strength of the shoulder muscles compared with the period before training. This is because the shoulder muscles, like all muscles, move in an active state while running. This condition is also characterized by the appearance of symptoms of muscle fatigue.

Thus, it is recommended to accept, take into account, implement developmental physiology in athletics, taking into account anthropometric and especially physiometric indicators individually for a student-athlete; these physical activities must be gradually increased and gradually performed in strict accordance with the age characteristics of the body; Considering that the volume and intensity of physical activity are inversely proportional to each other, it is recommended to determine the above physiometric parameters in order to justify the joint physical and mental development of students studying in higher educational institutions, colleges and lyceums. [10]

A healthy lifestyle is all behavioral responses and human activities that have a beneficial effect on health and promote health. A healthy lifestyle is a broad concept that includes all the basic elements of an individual's behavior in his daily activities [3].

The difficulties of the socio-economic reform of Russian society have led to the fact that there is a threat to the existence of man as a kind of socio-biological being and society as a social system [4].

Sprinting is one of the most popular and massive types of athletics. A significant aggravation of competition in the international sports arena, a multiple increase in the volume and intensity of the training load compared to previous decades make it very important to search for new ways in organizing the educational and training process of sprinters [2]. The term " speed qualities.

Speed qualities must be constantly developed, bringing the body's capabilities to a new level. But the possibility of increasing the speed is very limited. In the process of sports training, an increase in the speed of movements is achieved not only by influencing this physical quality, but also in a different way - through the development of power and speed-strength qualities, speed endurance, and improvement of the technique of movements [2].

At present, the indicators of physical development of children are determined not only by the functional properties of morpho, but also by the level of biological development of the organism. Changes in physical development indicators depend on age, and the younger the child, the higher the rates. Physical development depends on gender and social conditions.

Non-compliance with hygienic requirements in the family and in educational institutions has a negative impact on the physical development of the young organism, as well as on its mental formation. (1)

High school age period: This period lasts from 12 to 15 years. This period is characterized by rapid growth and weight gain. Body proportions are sharply closer to those of an adult. Secondary sexual symptoms appear during puberty (13-14 years for boys, 11-12 years for girls) and increased exposure to gonadal hormones. The functions of the pituitary and thyroid glands increase, the thymus undergoes re-development (involution). The brain acts as the "head and distributor of all the functions of the body" of the large hemispheres. The balance and mobility of the propulsion and braking processes are improved, and the functions of acceleration and generalization are complicated, especially due to the development of the secondary signaling system. 8. High school or aspirin age. This period lasts from 13 to 18 years in a child, from 15 to

16 to 19 to 20 years in a boy. This period is characterized by an increase in the function of the gonads, the completion of the development of secondary sexual characteristics. The functions of the endocrine glands, especially the pituitary and thyroid glands, are also enhanced. With the exception of the thymus gland, its involution continues. (8.10)

Changes in the hormonal background affect the conditioned reflex activity of aspirin, and the deterioration of signal differentiation is accompanied by widespread irradiation. In boys, "ammunition" movement of the ashes, legs and body is observed. The latent stages of conditioned reflex reactions increase, speech becomes sluggish, responses become stereotyped, and the formation of new connections to sound signals becomes more difficult. All this indicates a decrease in the activity of the second alarm system. Girls of this age are characterized by a decrease in the ability to work, high sensitivity, and vegetative reactions. For some aspirin learners, it is difficult to compose complex sentences, draw logical conclusions, and memorize learning materials. The second phase of puberty (13-15 years for girls and 15-17 years for boys) is a difficult period of development. In a state of mental stability, there can be a sharp transition to depression and vice versa, severe criticism of older people, sadness, frequent crying in girls. Negative effects are often observed. The hormonal remodeling period requires careful and sensible treatment of aspirin. Conflicts between aspirin and parents and teachers are often the result of children's inability to properly assess the characteristics of OAF during this period. The main conditions for overcoming this period without disturbances and setbacks are a healthy routine, calm, benevolent spirit, fun for uspirin, including exercise. At the age of 15-18, the role of the second signaling system increases again, and memory improves. At this age, the development of OAF is largely complete, and it achieves high functional perfection. (6)

The health of a person depends on the state of the musculoskeletal system, in many respects, such as walking, working, and physical health. Adequate attention should be paid to the musculoskeletal system of the child from birth from the moment of birth. If he sits incorrectly on the desk, engages in strenuous physical activity that is

not appropriate for his age, if he wears very wide or narrow shoes and always looks at the ground, there will be a wide change in his stature.

As a result, the thorax narrows, there are not enough conditions for the proper functioning of the limbs, the legs become flat, you get tired quickly when walking, you can not run fast. In girls, scoliosis is a complication of the birth process, which can lead to severe injuries to the mother and child. (2,3)

Environmental conditions, genetic programs and other factors Acceleration of growth and development under the influence of external factors is called acceleration (lat. Acceleratio - acceleration uv), the term was first coined by the German scientist R. Cox entered biology and medicine in 1935. Acceleration affects not only physical growth but also mental development. Usually group and period accelerations differ. The fact that some children of a certain age are superior to their physical and mental peers is an example of group acceleration. Examples of acceleration of growth and development in modern children and adolescents compared to previous generations, the onset of puberty, the accelerated development of sensory and somatic systems. Over the next 30 to 50 years, the body weight of the cubs increased by 500 g and the body length by 2.0 to 2.5 cm. It was noted that in 15-year-old adolescents, body length increased by 6-10 centimeters and body weight by 3-10 kg. Acceleration of the cardiovascular, respiratory and musculoskeletal systems has led to the "rejuvenation" of sports, ie an increase in the number of young people among athletes. Acceleration of physical performance leads to acceleration of mental development. Spiritual acceleration can also occur due to the widespread use of the media today: radio, television, computers and the Internet, as well as the increase in the volume of information. Similarly, reversal is observed during puberty. For example, compared to the 1900s, the sexual maturation of boys and girls has now accelerated by an average of 2-3 years. In Czechoslovakia, the onset of menstruation in girls in 1914 was 14 years, and by the end of the twentieth century it was 12 years. Changes in the natural and social environment have a major impact on children's acceleration. Acceleration often occurs with changes in social, natural conditions. For example, the alimentary factor,

ie the improvement of nutrition, its high concentration and variety in terms of quantity and energy compared to previous lands, is one of the factors accelerating growth and development. Again, heterosis is a relative predominance in the physical development of children born due to the proliferation of marriages between young people of different nationalities, continents and countries as a result of extensive population migration. Due to urbanization, that is, the increase in urban population and the acceleration of the exchange of information in these conditions, the physical and especially mental development of children is accelerated. . In recent years, the improvement of social and socio-hygienic conditions can lead to an acceleration, creating an opportunity to reduce the incidence of diseases. According to some literature, mutations have appeared in Karaganda under the influence of cosmic rays, which can also lead to acceleration. There are also negative aspects to the acceleration itself. For example, over the past 50 years, the increase in the weight of newborns by 1 to 1.5 kg has increased the tendency of children to become obese. Obesity, on the other hand, causes many diseases, most commonly cancer. (7,8)

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Conclusion. Sport within the framework of physical culture arises at the dawn of civilization from the universal property of a person - competitiveness, the eternal desire to take the lead in competition with rivals. In modern conditions, physical culture and sports in the historical consciousness and way of life of peoples are a generally recognized social institution. As for the specifics of sports in the conditions of modern civilization, for a part of the population it acts as a healing factor in the form of leisure, recreation, entertainment, for a small social group it is a profession, everyday work in the form of professional sports.

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