

ADULT DYNAMICS OF PHYSICAL DEVELOPMENT OF CHILDREN 14-15 YEARS OLD

H.Z.Bakhriddinov independent researcher

Uzbek State University of Physical Education and Sports

Makhkamov Sh., - independent researcher

Uzbek State University of Physical Education and Sports

Sultonov U Independent researcher

Uzbek State University of Physical Education and Sports

Annotation: In the world practice, one of the priorities is to select and direct talented students to sports, to bring them up as a healthy generation. Leading scholars in the field of sports emphasize that the problem of developing the physical qualities of schoolchildren is one of the most important theoretical and practical pedagogical and physiological problems of physical education and sports. At present, a new system of effective use of modern technologies, methods and tools of teaching physical education in foreign countries is being applied to the educational process. This is of great importance for the future development of students as full-fledged human beings, physically healthy and capable.

Keywords: physical culture, physical education, physical development.

As a result of studying the scientific and methodological literature of foreign scientists, it became clear that a number of scientific researches on physical education have been carried out. In particular, VK Balsevich, L I Lubisheva, SV Ribalkina, YF Kuramshin, VA Bogdanova, GV Zhulina, NI Chuktureva, AN Kondratiev, VA Baranov and others.

Numerous studies by VG Nikitushkin, [2010.-206 p.] VK Balsevich, [2000.-275 p.] Allow us to draw the following conclusions about the sensory zones of development of physical abilities with age:

- The development of physical abilities of children and adolescents takes place at different times;
- The rate of growth per year varies at different ages, and varies from boy to girl;
- Most young and middle-aged children have different levels of physical ability;
- Different pedagogical effects are achieved when the volume and intensity of physical activity are the same and the use of special exercises of the same style, in particular, the rate of development of physical abilities is higher during the period of natural increase.

There is no doubt that physical education classes and sports clubs give good results if teachers take into account the most favorable age for the development of physical abilities. The development of certain tasks, qualities and characteristics with a specific purpose is effective only in certain years of life; these years should coincide with the critical periods of the natural, age-old development of those traits. In addition, critical periods in childhood are more important than in adults.

A.A Guzhalovsky [1979.-22 p.] Distinguished subcritical periods, low, moderate and high critical periods. In the pubertal period, individual differences, in particular, are most pronounced; these differences are related to the level of production of sex hormones and the genetic characteristics of the rate of sexual maturation. It is also believed that unfavorable conditions are created for the development of motor skills during periods of active growth. These periods begin at different ages, depending on the structure of the body and the degree of physical growth, LV Volkov, [2002.-290 p.].

According to the analysis of pedagogical research, AA Guzhalovsky [1979.-22 p.], VP Filin, [1987.-129 p.] . The stage of sexual maturity allows to classify the level of readiness of children and adolescents, but the importance of knowledge about the stratified development of physical abilities of students of small and large school age is not insignificant. 1996.-130 p].

The world's leading educational institutions, mainly in the process of physical education in general secondary schools, are studying a set of measures to ensure a learning environment aimed at the physical development of students.

However, if we do not take into account some methodological recommendations on the subject of this study, a separate monograph devoted to solving the problem of improving the health of students will not be conducted.

When measuring the physical development of 8th grade students in secondary schools, at the beginning of the school year, the height of students was 157.9 ± 4.7 cm, and at the end of the school year the average was 3.3 cm 163.1. The annual growth rate of physical development of students of this age was found to be 5.2 cm (3.2%). There is no reliability of statistical differences between the indicators ($p > 0.05$)

Indicators of physical development of 14-year-old schoolchildren
1-table

	Indicators					difference	%	t	P
		X±a	V%	X±a	V%				
1.	Height	157,9±4,7	2,9	163,1±3,1	1,9	5,2	3,2	1,38	>0,05
2.	Weight	45,9±2,5	5,4	48,6±1,9	3,9	2,7	5,9	1,14	>0,05
3.	Chest	73,1±3,8	5,1	76,4±2,7	3,5	3,3	4,5	1,61	>0,05

The developmental processes of body weight of 14-year-old schoolchildren were studied. According to him, the average weight of students at the beginning of the school year is 45.9 ± 2.5 kg. At the end of the school year, this figure increased by 48.6 ± 1.9 kg. The weight gain of students of this age differed by 2.7 kg (5.9%) from the annual growth rate. There is no reliability of statistical differences between the indicators ($p > 0.05$).

At the beginning of the school year, the average chest circumference of students was 73.1 ± 3.8 cm. At the end of the year, the physical growth rate increased by 3.3 cm to 76.4 ± 2.7 cm. The above results do not show the reliability of the differences between the indicators of physical development ($p > 0.05$).

Indicators of physical development of 15-year-old schoolchildren
2-table

	Indicators					difference	%	t	P
		X±a	V%	X±a	V%				
1.	Height	162,8±5,1	3,1	167,7±3,9	3,2	4,9	3,0	1,84	>0,05
2.	Weight	50,5±3,2	6,3	53,6±2,1	3,9	3,1	6,1	2,92	<0,05
3.	Chest	76,4±4,4	5,7	79,9±3,0	3,8	3,5	4,6	1,34	>0,05

The average length of physical development of 9th grade students at the beginning of the school year was 162.8 ± 5.1 cm. At the end of the year, the physical growth rate increased by 167.7 ± 3.9 cm. The results showed a difference of 4.9 cm during the year. The above results do not show the reliability of the differences between the indicators of physical development ($p > 0.05$).

According to the developmental process of 9th grade students in terms of body weight, the average body weight of students at the beginning of the school year is 50.5 ± 3.2 kg. At the end of the school year, this figure increased by 53.6 ± 2.1 kg. The annual weight gain of students of this age differed by 3.1 kg (6.1%). There is no reliability of statistical differences between the indicators ($p > 0.05$).

When measuring the physical development of 15-year-olds in schools, at the beginning of the school year the chest circumference was 76.4 ± 4.4 cm, and at the end of the school year the average was 79.9 ± 3.0 cm. It was found that the annual growth rate of physical development of students of this age is 3.5 cm (4.6%). There is no reliability of statistical differences between the indicators ($p > 0.05$).

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