

INDICATORS OF PHYSICAL DEVELOPMENT OF BOYS AND GIRLS WITH ADENOIDS

Alimova Nigina Pulatovna

Bukhara State Medical Institute

Uzbekistan

E-mail: alimova.nigina@bsmi.uz

ORCID ID: 0000-0002-9665-226X

Annotation: Under the influence of the environment, the transformation of the development of the organism in growth develops, which reflects physical development. The reflection of the morphometry of physical development is the indicators of anthropometry, physiognometry and data of functional activity. Height, weight and chest girth are the main anthropometric parameters of the physical development of children at certain stages of ontogenesis.

Keywords: anthropomertia, children, adenoid hypertrophy, physical development

Objective: to analyze the parameters of physical development of children 3-11 years old and children with adenoid hypertrophy

Materials and methods: The study was carried out on the basis of the ENT department of the Bukhara Regional Children's Hospital. The number of children before and after adenotomy surgery was 348 (181 boys and 167 girls). Accordingly, in children with adenoid hypertrophy and 6 months after surgery, body length was measured with a height meter, body weight with special medical scales, chest circumference with a measuring tape the state of children (Table 1).

The subject of the study was the anthropometric parameters of the head and face. In conducting scientific research, a set of methods was used, depending on the tasks: anthropometric, morphometric, statistical methods.

Introduction. Changes and generalization of morphofunctional traits depending on the environmental conditions of physical development are indicators of their genetic factors [112, p. 139-145; 117, pp. 275-282].

As a result, the latter is changed in the process of physical development in a positive or negative direction [45, p. 566-567; 84, p. (In Russian) 204-204a].

According to N.N. Rudenko, I.Y. Melnikov (2010), one of the informative criteria of children's health, which characterize this dynamic process, determines the development of the child in physical terms [77, pp. 121-123].

Centile tables are the main and common methods for determining the harmony of children's physical development [20, p. 73–79], which are compiled on the basis of measurements of

anthropometric parameters of a large number of children under study and speak of the average values of the parameters of weight, height, chest and head girth, which in turn makes it possible to compare the growth rates and increments of the child's individual development [112, p. 139-145].

There are separate tables for male and female children. Head circumference is evaluated only up to the first year of life of children, and already in preschool and school age, height, body weight and chest circumference are considered important indicators [21, p. 73-79; 26, p. (In Russian) 86-100].

With the help of mathematical formulas for the body mass index method, it is possible to characterize the development of physical condition by the ratio of individual anthropometric parameters [24, p. 165-166; 115, p. (In Russian) 91-101.].

At present, despite the standardization of research, the search for the most informative methods, there is still no accurate assessment of physical development indicators [26, p. 86-100; 54, p. (In Russian) 59-64; 117, p. (In Russian) 275-282; 119, p. (In Russian) 578-583].

The study of the features of health formation helps in the study of the physical development of a large number of children and adolescents [26, p. 86-100].

The results of the main morphometric measurements are used as standards for assessing physical development [110, p. 10-15; 118, c. 280-283].

There are uniform international norms (standards and standards), according to the WHO, that characterize the physical development of children [26, p. 86-100].

In the development of a child, the causes of various health deviations are improper nutrition, environmental factors, pathologies, genetics and ethnic characteristics [51, p. 49-54; 74, pp. 257-260; 113, pp. 27-28; 114, c. 845-854].

In studies on physical development, at the age of up to 5 years under favorable living conditions for children, the same growth rates in height and body weight were revealed, and when comparing the results of these data with the help of centile tables, the same increase in parameters was shown [3, p. 68-73; 9, p. 23; 59, p. (In Russian) 27-31; 83, c. 2; 93, c. 12-19].

Results of the study. In this chapter, we present the results of anthropometric parameters of children with hypertrophy of the pharyngeal tonsils of both sexes aged 3-11 years. All the data obtained are described in the age aspect, in this regard, the description of the parameters begins at the age of 3.

In boys at the 3rd year of age, the average height was 87.8 ± 0.30 cm, in girls it was on average - 91.5 ± 0.20 cm. The average weight of boys was 12.9 ± 0.10 kg, in girls it was on average - 13.6 ± 0.01 kg $\pm \pm$. 40 cm, respectively.

In 4-year-old male children, the height was on average 97.6 ± 0.50 cm, in females it was on average - 95.8 ± 0.40 cm. The average body weight of boys was 14.7 ± 0.10 kg, in girls it was on average - 14.7 ± 0.10 kg. in the female sex, the average was 52.0 ± 0.20 cm.

According to the study, the average height of 5-year-old boys was 105.2 ± 0.30 cm, girls averaged 105.3 ± 0.10 cm, males weighed an average of 15.8 ± 0.10 kg, females averaged 16.7 ± 0.10 kg $\pm$.

Based on the results of the study, it can be noted that the average height of 6-year-old male children is 111.8 ± 0.40 cm, and the average height of girls is 111.2 ± 0.20 cm. Body weight in male children was on average 18.9 ± 0.40 kg, and in girls it averaged 19.0 ± 0.10 kg. 21 cm, in the female sex it was equal on average - 55.4 ± 0.10 cm.

As a result of the research, it turned out that the height of 7-year-old male children averaged 121.7 ± 0.30 cm, and that of females was 121.6 ± 0.20 cm. Body weight in boys was on average 21.7 ± 0.30 kg, in girls it averaged 21.4 ± 0.20 kg. 30 cm, girls had an average height of 58.3 ± 0.10 cm. Studies have shown that 8-year-old male children had an average height of 125.5 ± 0.312 cm, and females had an average height of 125.4 ± 0.30 cm. Boys' average weight was 25.3 ± 0.26 kg and the average chest circumference in pause was 62.4 ± 0.31 cm, and in girls the average was 24.3 ± 0.20 kg and the average chest circumference in the pause was on average 59.2 ± 0.20 cm, respectively.

The treated data showed that the average height of 9-year-old male children was 132.1 ± 0.33 cm, the average height of females was 130.3 ± 0.30 cm. Boys' body weight averaged 26.9 ± 0.28 kg, girls' average weight was 27.0 ± 0.30 kg. 20 cm, for women it was on average - 62.4 ± 0.20 cm.

Table 3.4

Anthropometric indicators of physical development of children with adenoids (cm)

Age	Floor	Growth	Body weight	Paused chest circumference
3 – flight	M	83,2-91,9	12,1-13,7	45,5-49,8
		87,8 $\pm$ 0,3	12,9 $\pm$ 0,1	47,8 $\pm$ 0,2
	D	88,2-93,8	13,1-14,2	44,3-53,5
		91,5 $\pm$ 0,2	13,6 $\pm$ 0,0	48,6 $\pm$ 0,4
4 – flight	M	90,8-102,4	13,1-16,0	47,2-53,2
		97,6 $\pm$ 0,5*	14,7 $\pm$ 0,1*	50,9 $\pm$ 0,2*
	D	90,9-101,6	13,8-15,5	50,3-54,5
		95,8 $\pm$ 0,4*	14,7 $\pm$ 0,1*	52,0 $\pm$ 0,2*

5 – flight	M	100,7-109,2 105,2±0,3*	13,7-17,6 15,8±0,2*	51,0-53,9 52,4±0,1*
	D	103,5-106,8 105,3±0,1*	15,9-17,8 16,7±0,1*	52,6-55,4 53,9±0,1*
6 – flight	M	108,3-118,9 111,8±0,4*	14,1-22,9 18,9±0,4*	55,0-60,4 57,7±0,2*
	D	108,5-113,4 111,2±0,2*	17,8-20,6 19,0±0,1*	53,6-56,9 55,4±0,1*
7 – flight	M	118,3-125,2 121,7±0,3*	17,8-24,2 21,7±0,3*	58,7-65,5 62,1±0,3*
	D	119,5-123,4 121,6±0,2*	19,5-23,8 21,4±0,2*	56,3-61,0 58,3±0,2*
8 – flight	M	120,5-128,3 125,2±0,31*	22,1-28,7 25,3±0,26*	58,4-66,1 62,4±0,3*
	D	121,9-129,6 125,4±0,3*	21,8-26,9 24,3±0,2*	57,1-61,7 59,2±0,2*
9 – flight	M	128,1-136,3 132,1±0,32*	23,1-30 26,8±0,27*	60,6-65,7 63,6±0,2*
	D	126,3-132,9 130,3±0,3*	23,5-29,8 27,0±0,3*	59,8-65,6 62,4±0,2*
10 – flight	M	132,6-139,3 136,0±0,27*	27,7-31,4 29,5±0,15*	63,1-67,7 65,40±0,18*
	D	132,7-143,6 137,2±0,44*	26,7-33,3 30,3±0,26*	60,8-67,4 64,4±0,26*

11 – flight	M	134,1-142,8 139,0±0,35*	27,8-34,8 32,20±0,28*	63,7-69,2 66,60±0,22*
	D	137,2-144,7 141,5±0,30*	26,-35,7 30,8±0,39*	63,0-69,7 66,1±0,27*

Note: *-confidence index ($P < 0.05$) compared to the previous age.

Based on the results of the study, 10-year-old boys had an average height of 136.0 ± 0.27 cm, girls averaged 137.2 ± 0.44 cm, the average weight was 29.5 ± 0.15 kg and 30.3 ± 0.26 kg, respectively. The indicators of chest circumference in the pause in male children was equal to the average - 65.4 ± 0.18 cm, in females, it averaged 64.4 ± 0.26 cm.

It was revealed that in 11-year-old male children, the average height was 139.0 ± 0.35 cm, in females it was equal on average - 141.5 ± 0.30 cm, and the body weight was equal to 32.2 ± 0.28 kg and 30.8 ± 0.39 kg, respectively. In boys, the average chest circumference was 66.6 ± 0.22 cm and in girls it averaged $66.1 \pm 0.$ cm (Table 3.4).

Thus, in children with adenoids, virtually all parameters of physical development of children significantly differed from the previous age and gradually increased ($p > 0.05$). In male children, the growth rate of chest circumference, length and body weight of boys increased by 1.39, 1.58 and 2.49 times, respectively. In female children, the growth rate of physical development parameters (chest circumference, height, weight) increased by 1.36, 1.55 and 2.26 times, respectively.

The growth rate of body length in 8-year-old boys was 2.15%, which was also noted in 11-year-old girls, respectively, equal to 3.04%. The increase in body weight in both sexes was 5.89% (boys 9 years old) and 1.64% (girls 11 years old) in relation to 3-year-olds, and the increase in chest circumference was equal in boys and girls 8 years old 0.49% and 1.51%, respectively

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