

## ANTHROPOMETRIC INDICATORS OF CHILDREN

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**Anthropometric:** *parameters of children under 18 years old living in the Fergana region were studied by age, gender and region. Based on the data obtained, the anthropometric parameters of children were analyzed. It was found that constipation caused by various diseases of the large intestine, common in children, has a negative impact on the anthropometric parameters of children.*

**Key words:** *anthropometric indicator, physical development, endogenous and exogenous factors, constipation.*

## АНТРОПОМЕТРИЧЕСКИЕ ПОКАЗАТЕЛИ ДЕТЕЙ

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Изучены антропометрические параметры детей до 18 лет, проживающих в Ферганской области, по возрасту, полу и региону. На основании полученных данных проанализированы антропометрические параметры детей. Было обнаружено, что запор, вызванный различными заболеваниями толстой кишки, часто встречающимися у детей, оказывает негативное влияние на антропометрические показатели детей

**Ключевые слова:** *эндогенные и экзогенные факторы, запор, антропометрический показатель, физическое развитие.*

## INTRODUCTION

Physical development reflects the processes of growth and development of the body at certain stages of ontogenesis when genotypic information is manifested phenotypically under the influence of environmental factors. Anthropometric data is used not only in medicine, but also in criminalistics to describe and identify criminals. The obtained data are compared to some parts of the body (head, neck, chest, abdomen and groin, arms and legs) and their growth or changes are monitored.

It is known that one of the important indicators of the human body is its physical development, and this indicator studies the morphological and functional parameters that are the basis of a holistic and multifaceted assessment of health. One of the most relevant issues of age-related morphology is the study of growth and body weight of children and adolescents of different ages. Anthropometry - quantitatively describes the changes in all characteristics of human body parts (length, width, thickness, shape, color, etc.)

According to the authors, the indicators of physical development of the population living in the mountainous regions have several differences compared to the population in other regions. It is also recognized that anthropometric indicators in different age periods are significantly dependent on climatic and geographical factors as a multifactorial process.

Accordingly, the environmental factors affecting the physical development of children and adolescents require individual and cross-regional study based on the lifestyle and health status of each organism.

When the anthropometric indicators of children aged 7-12 years, of primary school age, living in low mountain areas are studied depending on gender, age and external environment, the body weight increases 1.5 times in boys and 1.9 times in girls, and the most intensive growth in boys is at 9 and 11 years, and in girls and it is observed at 11 and 12 years old. When studying the anthropometric and somatotypological characteristics of people aged 16-21 years living in Penza and Penza region, their regional characteristics are body length (up to 0.5-2.5%), weight (up to 1-10%), chest width and its circumference. (up to 2-8%) was found to be less.

It is known that the physical development of children is significantly influenced by the climate, living conditions, daily routine, eating habits, and experienced diseases. Afanasievskaya Yu.S. according to his research, it was found that there is a difference in anthropometric and somatotypological characteristics of the population aged 16-21 living in Krasnodar and Krasnodar region compared to other regions.

According to the authors, the level of physical development of children is influenced by genetic factors, constitution type, intensity of metabolism, endocrine background of the body, activity of blood enzymes and fluids of digestive glands. In 2013, Orlova M.I. studied the factors affecting the anthropometric indicators of the fetus and observed the dynamics of the child's development indicators in the period from birth to 1 year. In this case, he gave his conclusions based on the influence of external environmental factors, the child's diet, natural and artificial nutrition. By studying the effects of endogenous and exogenous factors using modern regional standards of physical development, it is possible to optimize preventive examinations of the child population.

As a result, improvement of the methodology of development of regional standards of physical development of children and adolescents is achieved. According to medical sources, the number of anomalies and deformities of the dental and jaw system has increased in recent years, which is especially evident in children who are artificially fed at breast-feeding age.

Comparative description of the characteristics of changes in the teeth-jaw system and bite parameters of children on artificial and natural nutrition, development and implementation of computer programs in order to determine the normal growth of the anthropometric parameters of the head and face of children on different nutrition at the age of infancy, drawing up norms and standards for the physical development of the children's population creation of objective anthropological-ecological monitoring, which

shows the influence of many external factors on children's life activities, is important to reduce disease complications and improve the mechanism of preventive measures.

One of the most important problems of modern medicine is the study of the anatomical and morphological structure of the spine. He studied the anthropometric and vertebrometric characteristics of the height of women aged 16-20, as well as the shape of the spine. In the last decade, there has been a trend of deterioration of physical development indicators, especially in environmentally disadvantaged agricultural and industrial regions.

Assessment of the state of physical development in different age groups was limited to the use of anthropometric indicators, measurement of height and body weight, but data on the impact of cholestasis observed in colon diseases on children's anthropometric indicators were not sufficiently covered.

Therefore, it is of great importance for medicine to establish the standards of physical development and sexuality of children of different regions, including our country. The developed standards require frequent updating depending on the acceleration process and the child's somatic development. Several scientific studies have been conducted on anthropometry, but the effect of constipation, which is observed a lot in colon diseases, on children's anthropometric indicators is one of the urgent problems of medicine today. Identifying and evaluating these changes, their systematization is important for the health status and development of today's growing young generation.

#### **MATERIALS AND METHODS**

School №1 in Fergana city of Fergana region, School №21 in Fergana District, School №40 in Baghdad District, School №9 in Buvaida District were studied in 926 students. Children's height was measured standing with a measuring tape. Body mass was measured using a scale. All other measurements were measured with a centimeter tape.

#### **RESULTS OBTAINED AND CONCLUSION.**

The research was conducted in 3 stages. At the 1st stage, the body mass index of the children was determined based on their height and body weight. The results were compared with the norm. In the 2nd stage, children up to 18 years of age and gender deviation from the norm were monitored dynamically. Also, their height, body mass, head circumference, chest circumference, waist circumference, left and right shoulder length, left and right wrist-elbow length, left and right arm length, left and right paw and finger length, left and right leg length, left and right thigh and calf circumferences were measured. A health map incorporating children's anthropometric indicators "Map for the study of anthropometric indicators determining the health of the population in the cross-section of the regions" was developed, and the above indicators were recorded on it. Anthropometric measurements of the studied children were carried out in the medical centers of this school with the participation of a doctor and a nurse. The results of anthropometric indicators of 200 children monitored in dynamics were analyzed as follows. In particular, when analyzing the measured anthropometric indicators of children

in school No. 40 of Baghdad district, 7 boys and 5 girls from the 1st grade students; 5 boys and 6 girls from 2nd grade students; 3 boys and 4 girls from 3rd grade students; 2 boys and 4 girls from 4th grade students; 8 boys and 6 girls from 5th grade students; 4 boys and 7 girls from 6th grade students; 5 boys and 3 girls from 7th grade students; Abnormalities were observed in 8 boys and 9 girls from 8th grade students.

### CONCLUSION

It was found that 12.09% of the studied children (including 5.93% of boys and 6.16% of girls) had below-normal anthropometric indicators. When studying the reason for the lower anthropometric indicators, it was found that 37.05% of them (24.01% of them were girls and 13.04% were boys) suffered from constipation. Constipation caused by various diseases of the colon in children (colitis, Grishprung's disease, dysbacteriosis, dolichosigma and other diseases) has been found to have a negative effect on children's anthropometric indicators.

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