# Age Related Features Of Anthropometric Indicators In Healthy Children (Southern Aral Sea Region) I And Ii Periods Of Childhood, Taking Into Account The Type Of Feeding - Artificial Or Natural In Infancy

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**Annotation.** The study of the growth, development and condition of the facial skeleton of a modern child can be a theoretical and methodological basis for the development and improvement of anthropometric methods of diagnostics and reconstruction in medicine, substantiation of new principles for the prevention and treatment of vertebral anomalies and traumatological diseases. In the modern concept of orthopedic treatment, the main task is to achieve the desired results, taking into account individuality.

**Keywords:** anthropometric indicators, children, artificial nutrition, natural nutrition, infant.

**Material and methods of research:** Clinical, anthropometric, radiographic, teleroentgenographic and statistical methods of research in children in the I and II periods of childhood, who were on artificial and natural feeding in infancy, were studied. Results and discussions: The obtained results of the research indicate the ongoing process of shaping and the onset of proportional harmony, regional proportions expressing the proportionality of the segments of the musculoskeletal system, especially in the vertebrae.

**Relevance.** With increasing age, the child undergoes various changes in the body, in healthy children of the I and II period of childhood, taking into account the type of feeding, which are associated with the climatic and geographical features of the region of residence, the nature of nutrition and the change of milk teeth to permanent ones [2,5]. It has been established that the most significant increase in the frequency of health and developmental disorders, including pathology, among the younger generation occurs in the I and II periods of childhood.

During the years of Independence in Uzbekistan, the process of reforming the healthcare system is given the status of state policy. Certain successes have been achieved in protecting the health of the population, reducing diseases of various ages, including the first and second childhood. However, there were some problems in the health care system. Among them, important were the study of anthropometric features in children who were in artificial and natural feeding in infancy. The action strategy for the five priority areas of development of the Republic of Uzbekistan for 2018-2022 states "further implementation of a set of measures to improve family health, maternal and child health, expand high-quality medical care for mothers and children, provide them with specialized and high-

tech medical care, reduce child mortality ". In this regard, strengthening the health of the population and reducing the factors that contribute to violations of the morphometric characteristics in various pathologies that were in artificial and natural feeding in infancy, is important. At the world level, the compilation of norms and standards for the physical development of the child population allows you to create an objective anthropologist - environmental monitoring, which reflects the life of children and the impact of numerous external factors [3].

**Purpose of the study:** To study the features of the anthropometric parameters of healthy children in the South Aral Sea region of the I and II periods of childhood, taking into account the type of feeding.

The problem of temporal variability of anthropometric characteristics of children in the I and II period of childhood, taking into account the type of feeding - artificial or natural in infancy to the present time is relevant, and the factors influencing the development of this anatomical region have not been fully studied [3]. It is known that the physical development of children is significantly influenced by the climate, living conditions, daily routine, the nature of nutrition, as well as previous diseases. The rate of physical development is also influenced by hereditary factors, type of constitution, metabolic rate, endocrine background of the organism, activity of the musculoskeletal system [1,6].

Anthropometric indicators, being a multifactorial process in different age periods, largely depend on climatic and environmental factors [7]. One of the criteria for indicators of the health of the child population is physical health. Assessment of the state of physical development is impossible without data on anthropometric indicators of various age groups. Most of the works devoted to this topic were limited to measurements of height and body weight [1,4]. A full-fledged comprehensive study of morphometric parameters characterizing the physical development of the child population, especially anthropometric parameters of the I and II period of childhood, taking into account the type of feeding - artificial or natural in infancy, is not covered enough. The study of the proportional development of the human body at the main age stages will reveal the patterns of human ontogenesis as a biological species [2,5]. The ideas of studying the age and sex dynamics of anthropometric features from the standpoint of proportional similarity to definitive sizes remain problematic [6]. Therefore, the compilation of standards for the physical development and puberty of children from different regions is of great importance for medicine and pedagogy. The developed standards require periodic updating in connection with the process of acceleration and somatic development of the child. Etiological factors can affect at different stages of growth and development of the child's body, anthropometric measurements of parameters throughout the growth and musculoskeletal system. Violations allowed during artificial feeding of a child can cause anomalies in the musculoskeletal system, especially in the spinal column. It should be emphasized that at present there are few works on the comparative study of the anthropometric parameters of the musculoskeletal region of children in the I and II periods of childhood, who were in natural and artificial feeding in infancy.

Knowing how to take into account the proportions of the face is the key to success in various medical procedures, including the traumatological area. The study of the growth, development and condition of the facial skeleton of a modern child can be a theoretical and methodological basis for the development and improvement of anthropometric methods of diagnostics and reconstruction in medicine, substantiation of new principles for the prevention and treatment of vertebral anomalies and traumatological diseases. In the modern concept of orthopedic treatment, the main task is to achieve the desired results, taking into account individuality. The implementation of the above aspects and the development of criteria and the improvement of prognostic approaches to diagnostics determine the relevance of this problem. All of the above remains a priority area of scientific research.

**The purpose of the study:** To study the features of the anthropometric parameters of healthy children in the South Aral Sea I and II period of childhood, taking into account the type of feeding (artificial or natural).

**Material and methods of research:** Clinical, anthropometric, radiographic, teleroentgenographic and statistical methods of research in children in the I and II periods of childhood, who were on artificial and natural feeding in infancy, were studied. The quantitative composition of each age group is 100 people. The research program included the study of an anthropometric indicator (body length, body length and weight, as well as chest circumference, anteroposterior diameter of the chest, height of the foot, lower leg and thigh, as well as other parameters). The study was conducted in the central polyclinic of Urgench. To measure height, weight, chest circumference, anterior posterior chest diameter, a standard type stadiometer was used. To measure the length of the spinal column, vertebral discs and spinal canal, as well as the ratio between the sections of the spine, digital radiography, KT, MRI and NMRI are used.

**Results and discussions:** The obtained results of the research indicate the ongoing process of shaping and the onset of proportional harmony, regional proportions expressing the proportionality of the segments of the musculoskeletal system, especially in the vertebrae. The data obtained can also be used in the educational process when teaching anatomy, histology, pathological anatomy, toxicology, as well as in research work, sanitary and hygienic institutions.

**Conclusions:** The obtained results of the research indicate the ongoing process of shaping and the onset of proportional harmony, regional proportions, expressing the proportionality of the segments of the musculoskeletal system, especially in the vertebrae. Computer programs have been developed to determine normal growth by anthropometric parameters in children, as well as to assess the morphometric parameters of the vertebrae of children, depending on the type of feeding.

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