



## Prevalence of Dental Anomalies Among Children and Adolescents

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**Abstract: Relevance.** The study of the prevalence of dental anomalies in different periods of bite formation is an urgent problem of pediatric dentistry. The prevalence of dental anomalies among children and adolescents, according to literature data, ranges from 15% to 70%. According to A.N., Elovikov, M.D. Sannikov (1971), the frequency of anomalies is 42.8%, according to F.Y. Khoroshilkina et al. (2001) - 36.2%, according to 3. I. Garaev (1998) 45.6%, T.I. Kovalenko (1985) it is 30.9%, according to A.I. Rybakov, G.V. Baziyan (1977) 44.7%. An analysis of the literature on the epidemiology of dental anomalies in children in Russia has revealed the absence of a tendency to decrease their frequency over the past 2-3 decades, despite the improvement in the quality of dental care provided to children and the active introduction of methods for the prevention of dental caries. According to a number of publications based on the results of studies in the same area at intervals of several decades, there is an increase in the number of children with anomalies of the dental system.

The prevalence of some major dental diseases (caries, pulpitis, periodontitis, periodontal diseases) and dental anomalies in some regions was studied. But to date, no epidemiological examination has been conducted to study the frequency of dental anomalies on the scale of the entire republic. In our republic, the state of the orthodontic service is at a low level. This is evidenced by the fact that 8 orthodontists worked on the scale of the republic until recently. Due to the increase in the population's appeal for orthodontic care and the significant progress of the material and technical base in dentistry (edgewise techniques, begg techniques, etc.), there is a need to establish an orthodontic service. Against the background of the socio-economic, environmental conditions that have changed in recent years and the deterioration of the quality of life, negative shifts in the health of the younger generation are clearly visible. Scientists believe that in order to radically improve the health of the younger generation, it is necessary to comprehensively solve the problems of children's healthcare. The most relevant of them is the intensive development of fundamental research to ensure effective prevention of diseases in children.

Many authors pointed out the importance of determining the morphofunctional features of the body in the clinic, since they could act as prognostic criteria for the occurrence and course of the disease.

One of the main criteria for a child's health is the level of his physical development. Physical development is a set of morphological and functional signs of an organism that characterize the growth and development rates of a child. The study of human physical development, according to the materials of the World Health Organization (1999), should become one of the priorities of the state, since physical development is the most important criterion characterizing the state of health of an individual's body. The parameters of physical development depend on the complex of social conditions and inherited characteristics. The study of the main indicators of physical development of children in recent years has revealed certain trends. There was a significant decrease in growth rates, a decrease in latitudinal and coverage sizes, as well as body weight in all age and sex groups, there was a decrease in the number of children with normal physical development. The proportion of high school students with insufficient body weight has increased significantly - from 12.4 to 18.8% (for boys) and from 13.5 to 19.8% (for girls). Observation of schoolchildren from 1960 to 2004 allowed us to record the beginning of acceleration - their growth and development - in the 60s, its peak was in the mid-70s, the cessation of acceleration - in the 80s and the development of the opposite process (deceleration) - since the 90s. A similar cyclical pattern of growth and development of the younger generation over the past decades has been established in almost all European countries.

Of the endogenous factors affecting the growth and maturation of a child's body, genetic ones are by far the most significant. The influence of heredity, in general, affects the physical development and, especially, the growth of the child. A significant adverse effect on physical development is caused by the complicated course of the mother's pregnancy (histoses, infectious diseases in the first trimester, severe somatic diseases, irrational nutrition, the presence of bad habits). Pathology of the endocrine system (diabetes mellitus, hypothyroidism, impaired activity of the adenohypophysis, adrenal cortex), congenital heart defects, severe forms of diseases of the respiratory system, kidneys, gastrointestinal tract, central nervous system leave their mark. The exogenous causes of delayed physical development include insufficient, irrational or unbalanced nutrition. Of great importance is the organization of the regime for the child, care for him and the emotional climate in the family [1.3.5.7.9.11.13.15.17.19.21.23.25].

Currently, there are several dozen methods for assessing physical development, among which the assessment method using regression scales and the centile method are most widely used in clinical pediatrics and in the domestic healthcare organization. The regularities of the physical development of modern children include the gracilization of the physique and the lack of body weight in 13-14% of children. In some regions, this figure reaches 25%. According to R.T. Zaripova (2007), deviations in physical development in the Republic of Tatarstan have from 16.7 to 23.7% of urban urban children, which is mainly due to a lack of body weight. In adolescents with body weight deficiency, diseases of the cardiovascular system were detected in 60.5%, chronic ENT diseases - in 37.8%, posture disorders and scoliosis - in 68.4%. Rural school children have an excess body weight of 25.6%. A number of researchers have noted a lack of understanding of patients and their parents of the connection of dental anomalies with the general state of health. The authors emphasized the dependence of the effectiveness of orthodontic treatment on the general state of physical health [2.4.6.8.10].

A.V. Ryzhkova (2004) pointed out the peculiarities of the treatment of dental anomalies in children with gastroduodenal pathology and the need for a differentiated approach to the choice of orthodontic apparatus and treatment tactics [12.14.16.18.20.22.24].

S.A. Moiseenko (2002) revealed a high prevalence of dental anomalies among Krasnoyarsk children against the background of disharmonic physical development (excess fat accumulation), brachycephaly and the predominance of latitudinal facial dimensions. Analysis of the nature of dental anomalies in all examined children with different component composition showed that with the

predominance of bone tissue over muscle and fat, deep incisor occlusion was more often diagnosed (46.8%). In children with proportional development.

**Conclusion.** Differentiated determination of the need for orthodontic treatment in children and adolescents of different age periods is carried out taking into account the possibilities of self-regulation of certain types of dental anomalies, which is 17.1%. The need of children and adolescents for dental prosthetics varies from 5.2% to 20%, in early replacement bite it is 10.1%, in late replacement bite - 20.2%, in permanent bite - 15.4%. Preventive measures in order to form the normal development of ESR should begin with the antenatal period of the child's development together with obstetricians and gynecologists, in the future, pediatricians, speech therapists and dentists should be involved in these activities: therapists, surgeons, orthopedists.

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