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# PREVENTION AND TREATMENT OF PERIODONTAL DISEASES IN CHILDREN

**Aripov Muzaffar Alisher ugli**

Assistant, Department of Stomatology, Kokand University

**Khamidova Khadicha**

1st-year student, Department of Stomatology, Kokand University

**ABSTRACT:** This article examines the contemporary approaches to the prevention and treatment of periodontal diseases in children. It is demonstrated that the implementation of a comprehensive set of preventive measures—including dental education on proper oral care, professional hygiene, and the use of therapeutic and prophylactic agents containing antibacterial and anti-inflammatory components—makes it possible to achieve a reduction in inflammatory phenomena within periodontal tissues.

**Keywords:** children, periodontal disease, prevention, treatment.

## БОЛАЛАРДА ПАРОДОНТИТ

## КАСАЛЛИКЛАРНИНГ ОЛДИНИ ОЛИШ ВА ДАВОЛАШ

**Аннотация.** Ушбу маколада болаларда пародонтит касалликларнинг олдини олиш ва даволашни замонавий профилактикаси ўрганилган. Оғиз бўшлиғини парвариш қилиш қоидалари, касбий гигиена ва таркибида антибактериал ва яллиғланишга қарши компонентлар бўлган даволаш-профилактика воситаларидан фойдаланишни ўргатиш билан стоматологик маърифатни ўз ичига олган профилактика тадбирлари мажмуасини қўллаш пародонт тўқималарида яллиғланиш ҳодисаларини камайтиришга эришиш имконини беришлиги исботланган.

**Калит сўзлар**: болалар,пародонтит, провилактикаси, даволаш.

## ДЕТСКИЙ ПАРОДОНТИТ ПРОФИЛАКТИКА И ЛЕЧЕНИЕ ЗАБОЛЕВАНИЙ

**Аннотация.** В данной статье рассматривается современная профилактика и лечение пародонтита у детей. Доказано, что применение комплекса профилактических мероприятий, включающих стоматологическое просвещение с обучением правилам ухода за полостью рта, профессиональной гигиене и использованию лечебно-профилактических средств, содержащих антибактериальные и противовоспалительные компоненты, позволяет добиться снижения воспалительных явлений в тканях пародонта.

**Ключевые слова:** дети, пародонтит, профилактика, лечение.

## RELEVANCE

According to WHO data, 80% of the adult global population is susceptible to periodontal diseases, which leads to tooth loss, the appearance of chronic foci of infection in the oral cavity, decreased bodily reactivity, microbial sensitization, the development of allergic conditions, and

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other disorders. Chronic catarrhal gingivitis (referred to as a primary periodontal disease in childhood) often proceeds without distinct clinical signs and does not cause discomfort to the child. Inflammatory diseases of the gums are widespread among people of various ages, including more than half of children. Such pathologies frequently lead to other dentoalveolar diseases and subsequent tooth loss. Therefore, it is essential to detect and treat all oral diseases, especially those that may be asymptomatic.

Periodontitis is one of the diseases of the dentoalveolar system characterized by inflammation of the gingival mucosa [1, 2, 3]. Other tissues constituting the periodontium are generally not affected during this initial stage. The ligamentous apparatus and bone tissue are not prone to alteration. The inflammatory process typically involves several teeth. The extent of inflammation may vary depending on the patient's age, consistency, and quality of oral care, among other factors. The localization of this disease is usually uniform, affecting all areas that respond poorly to hygienic measures. To detect the initial signs of periodontal pathology and implement a complex of therapeutic and prophylactic measures, annual preventive check-ups for healthy children are necessary. Signs of periodontal pathology may also be the first manifestations of serious systemic diseases (endocrine, hematological, etc.), which increases the responsibility of the pediatric dentist for their timely diagnosis and treatment.

**Objective -** The goal is to propose a complex of therapeutic and prophylactic measures that improve the hygienic condition of the oral cavity and periodontal tissues, raise the level of dental health, and reduce the need for treatment among children and adolescents.

**Prevention** - Prevention should promote the correct development of the body during the prenatal and early postnatal periods, as well as during the formation and growth stages in childhood. Women whose pregnancy occurs against the background of general pathology require comprehensive health improvement measures involving relevant specialists. The diet of a pregnant woman must be high in calories and vitamins. Breastfeeding is extremely important for the growth and development of the infant during the first months of life. Active sucking on the mother's breast stimulates the correct growth of the jaws and the formation of periodontal tissues.

When transitioning to artificial feeding for the purpose of preventing periodontal diseases, a firm nipple with a small opening, similar in shape to the mother's breast, should be chosen. The composition, regimen, and type of complementary foods are prescribed by the pediatrician, but the dental practitioner should recommend training the child to eat solid food as early as possible (starting from 6-7 months of age), offering pieces of fresh fruits, vegetables, dry biscuits, bread, and similar foods. This helps prevent "chewing laziness," stimulate blood circulation in the dentoalveolar system and periodontal formation processes, and improve salivary excretion and self-cleaning of the mouth. After the eruption of temporary teeth, vigorous chewing movements also contribute to the physiological formation of periodontal tissues. Chewing hard food is highly beneficial during the temporary, mixed, and permanent dentitions. The cleansing effect of chewing is supplemented by daily oral care.

**Oral hygiene -** Hygienic care of the oral cavity is an essential component of complex therapy for periodontal diseases in children. The highest effectiveness of this measure is achieved if the doctor educates the child on the fundamental rules of toothbrushing, monitors the technique throughout the treatment period, and provides recommendations on oral hygiene. Considering

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the child's age, the dentist provides recommendations for selecting a toothbrush, toothpaste, and hygienic oral care products.

The doctor recommends that parents perform oral hygiene for children up to 3 years old themselves, strictly following the correct toothbrushing technique. The dental market is saturated with various products for children's oral hygiene. The unique shape of the R.O.C.S. PRO Baby brush handle prevents excessive pressure when cleaning the baby's teeth and gums, avoiding damage to the gums and immature enamel. The R.O.C.S. PRO Baby toothbrush handle is made of high-quality, safe PET plastic. R.O.C.S. PRO Baby toothpaste is designed for caring for infants' teeth from the youngest age up to 3 years.

**Principles of treating periodontal diseases in children** The treatment of periodontal diseases in children must be comprehensive. The complex is formulated considering the etiology of the disease, the nature and severity of inflammatory and dystrophic changes in the tissues, and data from specific clinical and laboratory examinations. If the child has general somatic or chronic systemic diseases, the overall treatment plan must be coordinated with a pediatrician or a specialist in the corresponding field. In children with decreased immunological reactivity, stimulating therapy should be administered according to the pediatrician's instructions.

**Local treatment** Various medications with anti-inflammatory effects are used when inflammatory phenomena are present in soft tissues. For this purpose, various dosage forms such as ointments, pastes, and aerosols are used, applied as applications and rinses, or introduced into the gingival-dental pockets. To reduce the sensitivity of hard tooth tissues that often accompanies periodontal diseases, teeth are treated with fluoride varnishes or pastes. From the vast arsenal of local anti-inflammatory agents for periodontal diseases, enzyme preparations, antibiotics, antiseptics, and preparations that promote tissue regeneration are widely used. Eliminating various traumatic factors in the oral cavity through pediatric, surgical, and orthopedic interventions plays an important role in the treatment of periodontal diseases.

Defects such as short labial frenula, massive mucosal pulls, and shallow vestibule are corrected only surgically. Great importance is given to correcting dentoalveolar anomalies using orthodontic treatment methods when pathological changes in the periodontium are present. Correction of malocclusion is considered most effective during childhood.

**Specific local treatment for periodontitis in children** Treating gingivitis in childhood is challenging. The disease is often severe in most cases. It is advisable to consult specialists: a therapist, orthodontist, and surgeon, to develop an individual treatment plan for such a child. Therefore, early detection of the disease and prevention of severe changes are of great importance. Before starting treatment, it is crucial to rule out systemic diseases in the child, and if found, treatment with the relevant pediatrician is essential. In treating patients with idiopathic diseases, the dentist's role is usually limited to preliminary diagnosis, referral to the appropriate specialist, and subsequent symptomatic therapy (sanitation of infection foci, anti-inflammatory treatment, local application of 1% hydrocortisone ointment, 10% methyluracil ointment for gingival bandages, tooth removal, etc.).

**General treatment of periodontal diseases in children** General treatment of periodontal diseases must take into account not only the etiological factors but also the mechanism of development of the individual components of the pathology.

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In this regard, general treatment is determined by the child's health status and includes treating the underlying disease and enhancing the body's protective forces. It must be strictly individualized.

**Vitamin therapy.** The most effective complex includes vitamins C, P, E, A, D, and group B vitamins. Children's need for vitamins is significantly higher than that of adults. This is explained by the characteristics of the growing organism—the intensity of metabolic processes, and the child's rapid growth and development. In periodontal diseases, vitamins are taken in quantities 2-3 times higher than the daily norm required by healthy children. The course of treatment is 2-4 weeks. It should be noted that taking vitamins without a doctor's prescription is unacceptable. Uncontrolled consumption of vitamin preparations will be ineffective at best and harmful to health at worst.

**Remineralizing therapy** is appropriate—for example, Calcium-D3 Nicomed (1 tablet containing 500 mg elemental calcium and 200 IU Vitamin D3) is taken 1-2 tablets per day for 20-25 days, 2-3 times a year.

**Hyposensitizing therapy.** Since conditions contributing to the sensitization of the body arise in periodontal disease in children, and the pathological process in the periodontium often develops against an allergic background, prescribing hyposensitizing agents is appropriate for such patients. Allergic reactions must be ruled out before prescribing hyposensitizing therapy. When choosing hyposensitizing drugs (Tavegyl, Suprastin, Pipolfen, Diphenhydramine, Diazolin), the state of the nervous system should be considered.

**Stimulatory agents.** Children with periodontitis are prescribed agents with a stimulating effect: Fibs, Prodigiosan, Retabolil, Metacil, Pentoxyl, and Imidon. When prescribing these agents, the initial state of the body's reactivity, the mechanism of action of the drug, and the specific course of the periodontal disease should be taken into account. In cases of progressive disease course, when local measures do not yield the desired effect, broad-spectrum antibiotics and sulfonamide drugs are prescribed. Treatment is carried out according to the generally accepted scheme for 3-4 weeks. The use of these drugs helps to eliminate inflammation in periodontal tissues and normalize metabolic processes within them. Rational nutrition is important in the treatment of periodontal diseases. To ensure a balanced diet, the food ration should include products containing the necessary amount of mineral salts and microelements, primarily calcium and fluorine.

## CONCLUSIONS

The implementation of a comprehensive set of preventive measures—including dental education on proper oral care, professional hygiene, and the use of therapeutic and prophylactic agents containing antibacterial and anti-inflammatory components—enabled a reduction in inflammatory phenomena within periodontal tissues. The proposed complex of therapeutic and prophylactic measures allows for improving the hygienic condition of the oral cavity and periodontal tissues, raising the level of dental health, and reducing the need for treatment among children and adolescents.

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