

## FEATURES OF DENTAL DISEASE PREVENTION IN CHILDREN IN THE MODERN ERA

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### Abstract

#### Relevance:

The occurrence of dental caries in children is inextricably linked to the adverse effects of cariesogenic factors. These include an unbalanced diet, high carbohydrate content in foods, poor oral hygiene, environmental violations, and preventive measures. Modern equipment, new techniques, and treatments do not protect the pediatric population from new caries outbreaks. Inadequate attention to the prevention of dental diseases, especially in recent years, has contributed to the development and worsening of the course of the disease. During the transition to market relations in the Republic of Uzbekistan, the situation of preventive care for children deteriorated significantly. We analyzed the interaction of risk factors for the development of dental caries in children in Samarkand and showed that their frequent consumption of sweets and carbonated beverages and the use of sweets between meals undoubtedly damage their teeth. Therefore, schools should actively introduce the concept of "food culture" from the dentist's point of view. In this case, it is recommended that water, vegetables, and salads be consumed as the last meal of the day.

#### Materials and methods:

In a study of children aged 6 to 12 years, the prevalence and intensity of dental caries ranged from 80 to 82% and 2.2 to 2.6, respectively, while in children aged 6 to 7 years, the prevalence and intensity of false tooth caries ranged from 60 to 76.3% and 1.5 to 2.0, respectively. Despite regular oral hygiene, the incidence of dental caries decreased slightly. According to our clinical observations, at the age of 1 year, children already develop so-called "nursery" caries. In the majority of cases, the children's dental condition is not controlled by their parents and is due to abuse of sweet and sticky foods. The average caries prevalence in Uzbekistan over a 12-year period reached 85%, with an intensity of 2.3.

Periodontal disease was found in 60-70% of 12-year-old children. Dental abnormalities were found in 69% of the children examined.

The critical situation of children's dental health in today's context places a great responsibility not only on professional attention, but also on parents and caregivers who must ensure that children's teeth and oral cavity are kept clean from the moment they erupt. The child should be able to perform the rudimentary movements with a toothbrush on his or her own, and the educator's job is to manage their execution. At the same time, parents, educators, and teachers are detracting from preventive measures for their children due to insufficient knowledge of hygiene education and basic child care. In Russia, the establishment of prevention centers has been proposed to provide targeted assistance. In the case of Samarkand, a center for prevention could be established on the basis of existing medical institutions, where not only preventive measures but also their coordination, planning, management, and auditing should take place. According to foreign authors, the greatest effect of prevention is observed when dental hygienists address this issue. The efficiency of the work is measured by improved hygiene and stabilization or reduction of carious teeth. The means of establishing a prevention center lies in the improvement of the work of dentists and its restructuring. First, it is important that oral prophylaxis of children be planned at critical ages, rather than continuously every year. The critical ages are 6, 12, and 15 years of age. At the same time, children can receive emergency dental care as soon as they see a doctor. This preventive approach separates treatment from prevention and enhances the effectiveness of prevention. Based on practical experience, the evaluation chart of dental status and the method of determining the effectiveness of caries prevention in children are provided. The practical application of the method of organizing medical and practical care by Vinogradova T.F. is difficult because there are many risk factors to be considered and the variability of indicators does not always reflect the caries tendency, and the method itself is difficult to implement. The methods themselves are also difficult to implement. Therefore, different options for preventive methods have been proposed. In European countries, recommendations include prevention of common diseases and promotion of a healthy lifestyle, hygiene education and upbringing of children, combating microorganisms, improving preventive measures, and increasing the level of

dental health. The implementers of the proposed preventive measures are dental hygienists. Based on the work performed, we have established that a preventive effect was observed with the use of ozonated water, as well as with the consideration of the time of eruption of permanent teeth: the prevalence of dental caries in children at age 10 years ranged from 88.8% to 97.5%, with an intensity of 3.9 to 5.9, and the oral hygiene levels of the children as well as their parents were Analysis of the intensity of caries in permanent teeth of 7-year-old children (n=160) showed a variation at levels ranging from -0.38 to +0.05, with a prevalence of 16.6%. 16-year-olds had a prevalence of -1.23% and 52%, respectively. The anti-caries effect of fluoride on permanent teeth according to the time of teething was also studied (n = 140). The follow-up period was 2 years. The results showed that caries intensity was twice lower than in the control group (0.98 and 0.44, respectively). Our observations indicate that prevention of dental disease in children, taking into account the eruption of permanent teeth, significantly reduces morbidity compared to the control group. In children, the use of this caries prevention method is more effective in areas with optimal fluoride content in water. Promising for the prevention of diseases of the oral cavity is the use of ozone solutions. Ozone inactivates microorganisms and has bactericidal properties. Thus, ozone solutions improve oral hygiene and contribute to the prevention of dental caries and periodontal disease. We conducted a comparative study of the caries-preventive effect of fluoride according to eruption time in children with permanent teeth (n=140). In the control group, similar activities were performed according to the method of T.F. Vinogradova (n=122). The study period was 2 years, and the intensity of caries was found to be 2 times lower during the prevention period, taking into account the eruption period of permanent teeth (0.98+0.12 and 0.44+0.05, respectively) Repeated studies were conducted on preschool children from 2 to 6 years old. epidemiology of preschool children in Samarkand in 2021-2022. The results of the study showed a population prevalence of dental caries in all age groups. Considering the dynamics of the prevalence of dental caries among preschool children in Samarkand, the following characteristics are noted: 1) according to our data, the prevalence of dental caries among preschool children was 68.1%; 2) the need for dental treatment is high, 68.3%; 3) compared to the 2012 and 2013 indicators, the prevalence of dental caries has increased. All

children covered the cariesogenic zone of false teeth with fluoride preparations three times during a 2-week examination in 2021 after hygiene education; at a 1-year control examination in 2022; at a 1-year control examination in 2023, the cariesogenic zone of false teeth was covered with fluoride preparations three times during a 2-week examination in 2023. No new caries development was observed in these children. Some parents believe that caries prevention in children should begin at the age of 5-6 years, but we believe this opinion to be erroneous. The hallmark of caries prevention in permanent teeth is the systemic sealing of the petrous fissure of the first permanent molar. In Samarkand drinking water, where the fluoride content in the water is normal, endogenous introduction of fluoride-containing preparations is not necessary. In areas with low fluoride content in water (0.3-0.4 mmol / l), children ingest sufficient amounts of fluoride in their bodies due to increased water intake in hot climates.

## Conclusion:

Taking into account the epidemiology of dental caries and the current state of dental care in Uzbekistan, and after studying the dental health of children in different parts of the country, especially in Samarkand, the following recommendations for practical medical care can be summarized: for the introduction and regular maintenance of comprehensive systemic prevention of dental caries in children, secondary specialized education is required specialists, i.e. dental hygienists, are needed for the introduction and regular maintenance of comprehensive systemic prevention of dental caries in children.

## Literature:

1. Ахмедов А. А. Иммунологические аспекты патогенеза гингивита и пародонтита //IQRO. – 2023. – Т. 3. – №. 2. – С. 121-123.
2. Astanovich A. D. A. et al. The State of Periodontal Tissues in Athletes Engaged in Cyclic Sports //Annals of the Romanian Society for Cell Biology. – 2021. – С. 235-241.
3. Astanovich A. A. Comparative Analysis of the Stress-Strain State of the Lower Jaw with Different Splinting Systems in Localized Periodontitis of Middle Gravity by Finite Element Modeling //Scholastic: Journal of Natural and Medical Education. – 2023. – Т. 2. – №. 5. – С. 181-187.

4. Ortikova N., Rizaev J. THE PREVALENCE AND REASONS OF STOMATOPHOBIA IN CHILDREN //E-Conference Globe. – 2021. – C. 339-341.
5. Alimjanovich R. J., Khairullaevna O. N., Normuratovich N. A. Correction of psychological stress in children with non-pharmacological methods of dental admission //Archive of Conferences. – 2021. – C. 108-114.
6. Xairullaevna O. N., Alimjanovich R. J. Improving the effectiveness of therapeutic and preventive measures by correcting psychoemotional stress in children at a dental appointment. – 2022.
7. Qobilovna B. Z. GENERAL CHARACTERISTICS OF RECURRENT HERPETIC STOMATITIS IN THE MOUTH //Web of Scientist: International Scientific Research Journal. – 2022. – T. 3. – №. 12. – C. 162-168.
8. Zarafruz B., Hekmat K. H. A. S. MANIFESTATION OF HERPETIC INFECTION IN THE ORAL CAVITY AND THEIR TIMELY ELIMINATION //Spectrum Journal of Innovation, Reforms and Development. – 2022. – T. 10. – C. 47-52.
9. Shoxrux S., Shoxrux I., Faxriddin C. PREVENTION AND TREATMENT OF ORAL INFECTIONS IN DENTURE WEARERS //International Journal of Early Childhood Special Education. – 2022. – T. 14. – №. 4.
10. Fakhriddin C., Shokhruh S., Nilufar I. ENDOKANAL PIN-KONSTRUKSİYALARНИ ISHLATISHDA ASORATLAR VA XATOLAR TAHLİLİ //JOURNAL OF BIOMEDICINE AND PRACTICE. – 2022. – T. 7. – №. 1.
11. Qobilovna B. Z. MODERN ASPECTS OF ETIOLOGY AND PATHOGENESIS OF HERPES ZOSTER //Web of Scientist: International Scientific Research Journal. – 2022. – T. 3. – №. 12. – C. 152-156.
12. Qobilovna B. Z., Maxzuna U. Improvement of Providing Therapeutic Dental Care to Pregnant Women. Therapeutic and Preventive Measures //Eurasian Research Bulletin. – 2023. – T. 16. – C. 146-150.
13. Qobilovna B. Z., Azamatovich B. M. MANIFESTATION OF SYMPTOMS IN THE ORAL CAVITY IN PATIENTS WITH TUBERCULOSIS INFECTION //Web of Scientist: International Scientific Research Journal. – 2022. – T. 3. – №. 11. – C. 402-407.

14. Nizomiddin A. I. Modern Methods of Odontopreparation for MetalCeramic for Beginner Prosthodontists //Eurasian Medical Research Periodical. – 2023. – T. 18. – C. 98-102.
15. МЕЛИБАЕВ Б. А., МАХМУДОВА У. Б. ЭФФЕКТИВНОСТЬ ПРИМЕНЕНИЯ ПАРАПУЛЬПАРНЫХ ШТИФТОВ (ППШ) ПРИ ВОССТАНОВЛЕНИИ ДЕФЕКТОВ КОРОНКОВОЙ ЧАСТИ ФРОНТАЛЬНЫХ ЗУБОВ //ЖУРНАЛ БИОМЕДИЦИНЫ И ПРАКТИКИ. – 2022. – Т. 7. – №. 1.
16. Ruziyeva K. A., Burhonova Z. K. K. Complex Application Of Magnetic Laser Therapy And Propolis Tincture For The Prevention And Treatment Of Chronic Recurrent Aphthous Stomatitis //The American Journal of Medical Sciences and Pharmaceutical Research. – 2021. – Т. 3. – №. 06. – C. 127-130.
17. Maxzuna U., Zarafruz B. IMPROVING THE PROVISION OF THERAPEUTIC DENTAL CARE TO PREGNANT WOMEN //Web of Scientist: International Scientific Research Journal. – 2022. – Т. 3. – №. 11. – C. 618-623.
18. Qobilovna B. Z. INTEGRATIVE APPROACH TO THE TREATMENT OF DISEASES OF THE ORAL MUCOSA USING LASER THERAPY //Web of Scientist: International Scientific Research Journal. – 2022. – Т. 3. – №. 11. – C. 408-412.
19. Makhmudova U. B. THE EFFECTIVENESS OF THE USE OF PARAPULPAR PINS (PPP) WHEN RESTORING DEFECTS IN THE CROWN PART OF THE FRONTAL TEETH //Asian journal of pharmaceutical and biological research. – 2022. – Т. 11. – №. 2.
20. Bakhtiyorovna M. U. CAUSES OF REMOVABLE DENTURE BREAKS AND ALLERGIC REACTIONS //Spectrum Journal of Innovation, Reforms and Development. – 2022. – Т. 10. – C. 374-377.
21. Sadriev N. N. Optimization of orthopedic treatment of dentition defects in patients with chronic diseases of the gastrointestinal tract //Science and Education. – 2022. – Т. 3. – №. 10. – C. 63-67.
22. Jamshed S. PREVALENCE OF PHYSIOLOGICAL BITE FORMS IN PEOPLE WITH DIFFERENT FACE TYPES //Web of Scientist:

- International Scientific Research Journal. – 2022. – T. 3. – №. 11. – C. 451-454.
23. Nizomitdin A. I. THERAPEUTIC EFFECT OF IMPROVED ENAMEL SURFACE PREPARATION TECHNIQUE IN THE TREATMENT OF ACUTE INITIAL CARIES OF TEMPORARY TEETH IN CHILDREN //Web of Scientist: International Scientific Research Journal. – 2022. – T. 3. – №. 11. – C. 440-445.
24. Shavkatovich O. R., Nizomitdin A. I. EFFECTIVENESS OF THE USE OF OSTEOPLASTIC MATERIAL" STIMUL-OSS" IN SAMARKAND //Web of Scientist: International Scientific Research Journal. – 2022. – T. 3. – №. 11. – C. 612-617.
25. Ахмадов И. Н. Нарушения в системе перекисного окисления липидов при парадантозе //IQRO. – 2023. – Т. 3. – №. 2. – С. 124-127.
26. Khusanovich K. B. R. C. F. TYPES AND APPLICATIONS OF DENTAL COMPLIMENTS //Journal of Modern Educational Achievements. – 2023. – Т. 5. – №. 5. – С. 95-99.