



CORRECTIVE METHODS FOR THE TREATMENT OF MALOCCLUSION IN ADULTS AND CHILDREN

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<https://doi.org/10.5281/zenodo.14509003>

Annotation. Dental anomalies are a common pathology and are detected in 30-50% of the adult population. The most common type is the crowded position of the teeth (33.7%). Depending on the severity and combination with the absence of individual teeth, they can lead to aesthetic and functional disorders [1, 2]. Such patients are characterized by a lack of space in the dental arch and various variants of incorrect tooth placement. At the same time, there is a decrease in the value of the longitudinal length of the dental arch relative to the amount of the sum of the mesiodistal size of the crowns of the teeth that form it [3]. One of the most common anomalies is crowding of incisors. Multiple incorrect tooth positions are often noted.

Keywords: Dentition, teething, periodontal disease, occlusion.

It is believed that these anomalies are based on genetic factors that determine the inheritance of pathological signs – the number, shape, size of teeth, as well as the parameters of the jaws and bones of the facial skull [4]. Genetically determined anomalies include disproportions in the size of the jaws, their underdevelopment, a decrease in the width of the dentition, as well as the eruption of wisdom teeth [5]

Among the causes of narrowing of the dentition, many heterogeneous causes are considered, primarily related to the peculiarities of childhood – difficulty in nasal breathing, sucking fingers, sluggish chewing, the presence of somatic diseases that contribute to metabolic disorders and weakening of the body, primarily rickets, dyspepsia, infectious and other diseases [6]. It is believed that changes in the nutritional structure of the population in recent decades have contributed to a significant change in the functional characteristics of the jaws, which in turn reinforced the observed tendency to decrease the size of these bones. At the same time, a clear relationship of jaw formation disorders with soft food intake and the predominance of oral respiration has not been established at present.

The mechanism of formation of crowding of teeth at an early age is usually associated with the eruption of incisors, which significantly seals both dentitions. In most cases, the volume of space on the upper dentition is sufficient for all four incisors, however, a space deficit may be detected on the lower dentition during this period, the size of which is on average 1.6 mm [7]. This contributes to the appearance of mandibular crowding of incisors. The development of crowding of teeth at an older age often coincides with the eruption of the third molars. A number of researchers believe that the pressure arising from the eruption of the third molars contributes to the occurrence of late crowding of the incisors [8]. However, this pathology can also be detected in patients with complete absence of third molars.

Crowding of the frontal teeth complicates malocclusion pathologies, accompanied by morphological, functional and aesthetic disorders of the maxillofacial region[9]. In the presence of the above factors, unfavorable conditions for the formation of the dental arch are created, contributing to malocclusion, as well as prerequisites for the presence of aesthetic

disorders [10]. Crowding of the front teeth contributes to the occurrence of functional overload of some teeth along with a decrease in the load on others, as well as deterioration of oral hygiene. It is believed that in the case of incorrect placement of teeth, the periodontium perceives an occlusive load, the direction of which changes, as a result, periodontal overload develops, which qualifies as functional and traumatic, leading to circulatory disorders of the tissues of the dental system [11].

Correction of malocclusion in adults and children is a complex of dental measures aimed at correcting occlusion anomalies, restoring proper closure of dentitions and normalizing the functions of chewing, speech and breathing.

Causes of malocclusion

1. In children:

Genetic predisposition.

Bad habits: sucking a finger, using a pacifier after 2-3 years.

Early removal of baby teeth.

Metabolic disorders and diseases (rickets, dysplasia).

2. In adults:

Untimely treatment in childhood.

Loss of teeth without subsequent prosthetics.

Diseases of the temporomandibular joint (TMJ).

Injuries to the maxillofacial region.

Methods of bite correction in children

1. Prevention and early intervention:

Learning the right habits (chewing solid food, giving up nipples).

Massage of the gums and jaw muscles.

2. Using the devices:

Trainers: soft silicone mouthguards that guide the growth of teeth.

Plates: orthodontic structures for teeth alignment and jaw correction.

Functional devices: adjust the growth of the jaw and the work of muscles (for example, the Bruckle apparatus).

3. Braces:

The installation of braces is acceptable in adolescents after eruption of permanent teeth.

Methods of bite correction in adults

1. Bracket systems:

The main method of correction of complex malocclusion.

Various types: metal, ceramic, sapphire or lingual (mounted on the inner surface of the teeth).

2. Aligners:

Transparent mouthguards for light and medium anomalies.

They are more aesthetic and comfortable, but require patient discipline.

3. Orthognathic surgery:

It is used for serious jaw abnormalities.

It is often combined with orthodontic treatment.

4. Prosthetics and restoration of teeth:

The installation of implants and crowns to restore the functions of the dentition.

Correction of occlusion through restoration of occlusion height.

Advantages of bite correction

- Improving the aesthetics of the face and smile.
- Restoration of normal function of chewing, speech and breathing.
- Reducing the risk of TMJ diseases.
- Prevention of pathological tooth abrasion.

The importance of early treatment

Bite correction in children is less traumatic and goes faster due to the active growth of the maxillofacial apparatus. In adults, treatment is more difficult because the jaws have completed growth, but modern technology allows you to correct most disorders.

Bottom line: regular visits to the dentist and orthodontist, as well as timely intervention, are the key to successful bite correction and maintaining the health of the dental system.

Literature:

1. Qilichovna, A. M., & Nematilloevna, X. M. (2024). METABOLIK SINDROMI VA QON BOSIMI BOR BEMORLARDA O'ZGARISH XUSUSIYATLARI BAHOLASH: Yangi O'zbekiston taraqqiyotida tadqiqotlarni o'rni va rivojlanish omillari. Yangi O'zbekiston taraqqiyotida tadqiqotlarni o'rni va rivojlanish omillari, 6(4), 187-196.
2. Qilichovna, A. M., & Nematilloevna, X. M. (2024). TIBBIYOT TILI HISOBLANMISH LOTIN TILINI SAMARALI O'RGANISH OMILLARI: Yangi O'zbekiston taraqqiyotida tadqiqotlarni o'rni va rivojlanish omillari. Yangi O'zbekiston taraqqiyotida tadqiqotlarni o'rni va rivojlanish omillari, 6(4), 197-206
3. Qilichovna, A. M., & Vahidovna, K. N. (2024). FACTORS CAUSING DISEASES OF PERIODONTAL TISSUES. JOURNAL OF HEALTHCARE AND LIFE-SCIENCE RESEARCH, 3(5), 196-201.
4. Qilichovna, A. M., & Abdumutalib o'g'li, U. A. (2024). KARIES PROFILAKTIKASI NAZARIYASI VA AMALIYOTI. JOURNAL OF HEALTHCARE AND LIFE-SCIENCE RESEARCH, 3(5), 202-209.
5. Vahidovna, K. N., & Qilichovna, A. M. (2024). FACTORS CAUSING PERIODONTAL TISSUE DISEASES. JOURNAL OF HEALTHCARE AND LIFE-SCIENCE RESEARCH, 3(5), 185-195.
6. Qilichovna, A. M. (2024). THEORETICAL FUNDAMENTALS OF CARIES PREVENTION. Journal of Science in Medicine and Life, 2(5), 222-226.
7. Qilichovna, A. M., & Safarboy o'g'li, T. S. (2024). 4-AVLOD ADGEZIV SISTEMA. JOURNAL OF HEALTHCARE AND LIFE-SCIENCE RESEARCH, 3(5), 307-313.
8. Valijonovna, O. M. (2023). Aseptic and antiseptic in therapeutic dentistry. Best Journal of Innovation in Science, Research and Development, 2(10), 517-521.
9. Valijonovna, O. M., & Bahodirovna, N. M. (2023). TREATMENT OF HYPERESTHESIA AFTER TEETH WHITENING. Научный Фокус, 1(1), 459-465.
10. Valijonovna, O. M., & Bahodirovna, N. M. (2023). PREVENTION AND TREATMENT OF COMPLICATIONS AFTER WHITENING. PEDAGOGICAL SCIENCES AND TEACHING METHODS, 2(23), 216-218.
11. Valijonovna, O. M., & Bahodirovna, N. M. (2022). PREVENTION AND TREATMENT OF COMPLICATIONS AFTER WHITENING. Scientific Impulse, 1(4), 1201-1207.
12. Valijonovna, O. M. (2023). ROLE OF ICON TREATMENT IN MODERN DENTISTRY. Best Journal of Innovation in Science, Research and Development, 117-120.
13. Valijonovna, O. M. (2024). BASIC AND ADDITIONAL METHODS OF EXAMINATION OF DENTAL PATIENTS. IMRAS, 7(1), 322-327.

- 14.Орифходжаева, М. В. (2024). ФИЗИОТЕРАПЕВТИЧЕСКИЕ ПРОЦЕДУРЫ, ИСПОЛЪЗУЕМЫЕ В СТОМАТОЛОГИИ ДЛЯ ЛЕЧЕНИЯ ЗАБОЛЕВАНИЙ ПОЛОСТИ РТА. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 39(5), 144-151.
- 15.Valijonovna, O. M. (2024). WORKERS OF INDUSTRIAL ENTERPRISES ORAL MUCOSA AND PREVENTION OF OCCUPATIONAL DISEASES IN DENTAL CAT DISCHARGE. SCIENTIFIC APPROACH TO THE MODERN EDUCATION SYSTEM, 2(22), 158-163.
- 16.Valijonovna, O. M. (2024). ORAL MUCOSAL INFLAMMATION AND PRIMARY TREATMENT METHODS CAUSED BY VARIOUS DUST PARTICLES IN PLANT AND FACTORY WORKERS. TADQIQOTLAR, 31(1), 188-194.
- 17.Valijonovna, O. M. (2024). TYPES OF OCCUPATIONAL DISEASES FOUND IN THE ORAL MUCOSA AND THEIR DESCRIPTION. TADQIQOTLAR, 31(1), 181-187.
- 18.Valijonovna, O. M. (2024). Dental Condition Trainees of Grain and Grain Products Combine Workers. Research Journal of Trauma and Disability Studies, 3(3), 284-288.
- 19.Valijonovna, O. M. (2024). Normal Microflora and Sanation of the Oral Cavity. JOURNAL OF HEALTHCARE AND LIFE-SCIENCE RESEARCH, 3(5), 302-306.
- 20.Valijonovna, O. M. (2024). MODERN METHODS USED IN THE PREVENTION OF CARIES. EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE, 4(4), 178-183.
- 21.Orifkhujaeva, M. V. (2024). Antiseptic and Disinfectants, Their Use in Dentistry. Journal of Science in Medicine and Life, 2(6), 159-165.
- 22.Orifkhujaeva, M. V. (2024). Treatment Using the Method of Laser Therapy in Dentistry. American Journal of Bioscience and Clinical Integrity, 1(10), 58-63.
- 23.Saloxiddinovna, X. Y. (2024). Modern Views on the Effects of the Use of Cholecalciferol on the General Condition of the Bod. JOURNAL OF HEALTHCARE AND LIFE-SCIENCE RESEARCH, 3(5), 79-85.
- 24.Халимова, Ю. С., & Хафизова, М. Н. (2024). МОРФО-ФУНКЦИОНАЛЬНЫЕ И КЛИНИЧЕСКИЕ АСПЕКТЫ СТРОЕНИЯ И РАЗВИТИЯ ЯИЧНИКОВ (ОБЗОР ЛИТЕРАТУРЫ). TADQIQOTLAR. UZ, 40(5), 188-198.
25. Халимова, Ю. С. (2024). Морфологические Особенности Поражения Печени У Пациентов С Синдромом Мэллори-Вейса. Journal of Science in Medicine and Life, 2(6), 166-172.
- 26.Xalimova, Y. S. (2024). Morphology of the Testes in the Detection of Infertility. Journal of Science in Medicine and Life, 2(6), 83-88.
- 27.Халимова, Ю. С., & Хафизова, М. Н. (2024). ОСОБЕННОСТИ СОЗРЕВАНИЕ И ФУНКЦИОНИРОВАНИЕ ЯИЧНИКОВ. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 55(2), 188-194.
- 28.Хафизова, М. Н., & Халимова, Ю. С. (2024). МОТИВАЦИОННЫЕ МЕТОДЫ ПРИ ОБУЧЕНИИ ЛАТЫНИ И МЕДИЦИНСКОЙ ТЕРМИНОЛОГИИ. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 55(2), 165-171.
- 29.Хафизова, М. Н., & Халимова, Ю. С. (2024). ИСПОЛЬЗОВАНИЕ ЧАСТОТНЫХ ОТРЕЗКОВ В НАИМЕНОВАНИЯХ ЛЕКАРСТВЕННЫХ ПРЕПАРАТОВ В ФАРМАЦЕВТИКЕ. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 55(2), 172-178.
- 30.Saloxiddinovna, X. Y., & Ne'matillaevna, X. M. (2024). FEATURES OF THE STRUCTURE OF THE REPRODUCTIVE ORGANS OF THE FEMALE BODY. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 55(2), 179-183.

- 31.Халимова, Ю. С., & Хафизова, М. Н. (2024). КЛИНИЧЕСКИЕ АСПЕКТЫ ЛИЦ ЗЛОУПОТРЕБЛЯЮЩЕЕСЯ ЭНЕРГЕТИЧЕСКИМИ НАПИТКАМИ. TADQIQOTLAR. UZ, 40(5), 199-207.
- 32.Халимова, Ю. С., & Хафизова, М. Н. (2024). КЛИНИЧЕСКИЕ ОСОБЕННОСТИ ЗАБОЛЕВАНИЙ ВНУТРЕННИХ ОРГАНОВ У ЛИЦ, СТРАДАЮЩИХ АЛКОГОЛЬНОЙ ЗАВИСИМОСТЬЮ. TADQIQOTLAR. UZ, 40(5), 240-250.
- 33.Халимова, Ю. С., & Хафизова, М. Н. (2024). кафедра Клинических наук Азиатский международный университет Бухара, Узбекистан. Modern education and development, 10(1), 60-75.
- 34.Халимова, Ю. С., & Хафизова, М. Н. (2024). МОРФО-ФУНКЦИОНАЛЬНЫЕ И КЛИНИЧЕСКИЕ АСПЕКТЫ ФОРМИРОВАНИЯ КОЖНЫХ ПОКРОВОВ. Modern education and development, 10(1), 76-90.
- 35.Nematilloevna, K. M., & Salokhiddinovna, K. Y. (2024). IMPORTANT FEATURES IN THE FORMATION OF DEGREE OF COMPARISON OF ADJECTIVES IN LATIN. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 55(2), 150-157.
- 36.KHALIMOVA, Y. S. (2024). MORPHOFUNCTIONAL CHARACTERISTICS OF TESTICULAR AND OVARIAN TISSUES OF ANIMALS IN THE AGE ASPECT. Valeology: International Journal of Medical Anthropology and Bioethics, 2(9), 100-105.
- 37.Salokhiddinovna, K. Y., Saifiloevich, S. B., Barnoevich, K. I., & Hikmatov, A. S. (2024). THE INCIDENCE OF AIDS, THE DEFINITION AND CAUSES OF THE DISEASE. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 55(2), 195-205.
- 38.Abdusalimovna, K. M. (2024). Current Representations of Simple Prosthodontics. Best Journal of Innovation in Science, Research and Development, 3(3), 228-234.
- 39.Abdusalimovna, K. M. (2024). THE USE OF CERAMIC MATERIALS IN ORTHOPEDIC DENTISTRY.(Literature review). TADQIQOTLAR, 31(3), 75-85.
- 40.Abdusalimovna, K. M. (2024). THE ADVANTAGE OF USING ALL-CERAMIC STRUCTURES. TA'LIM VA INNOVATSION TADQIQOTLAR, 13, 49-53.
- 41.Abdusalimovna, K. M. (2024). CLINICAL AND MORPHOLOGICAL FEATURES OF THE USE OF METAL-FREE CERAMIC STRUCTURES. TA'LIM VA INNOVATSION TADQIQOTLAR, 13, 45-48.
- 42.Кузиева, М. А. (2023). Клиникоморфологические Критерии Органов Ротовой Полости При Применении Несъемных Ортопедических Конструкций. Research Journal of Trauma and Disability Studies, 2(12), 318-324.
- 43.Abdusalimovna, K. M. (2024). MORPHO-FUNCTIONAL FEATURES OF THE METHOD OF PREPARATION OF DEPULPATED TEETH FOR PROSTHETICS. SCIENTIFIC JOURNAL OF APPLIED AND MEDICAL SCIENCES, 3(4), 301-307.
- 44.Abdusalimovna, K. M. (2024). Clinical and Morphological Features of the Use of Non-Removable Orthopedic Structures. JOURNAL OF HEALTHCARE AND LIFE-SCIENCE RESEARCH, 3(5), 73-78.
- 45.Kurbanova, N. V. (2024). The Intensity of Caries and Deep Inflammation in School-Age Children. International Journal of Pediatrics and Genetics, 2(7), 85-89.
- 46.Kurbanova, N. V. (2024). Modern Presentation of Calcium-Containing Drugs in the Course of the Study of Dental Diseases. International Journal of Alternative and Contemporary Therapy, 2(7), 12-14.

47. Kurbanova, N. V. (2024, July). Modern Views on the use of Metal-Ceramic Structures in Dental Prosthetics. In Interdisciplinary Conference of Young Scholars in Social Sciences (USA) (Vol. 8, pp. 15-18). <https://www.openconference.us/index.ph>.
48. Kurbanova, N. V. (2024). Clinical and Morphological Features of the Occurrence of Tooth Decay. International Journal of Alternative and Contemporary Therapy, 2(9), 128-132.
49. Dzhuraevna, K. M. (2023). THE FREQUENCY OF DENTAL DISEASES IN CHILDREN (LITERATURE REVIEW). Лучшие интеллектуальные исследования, 12(1), 159-168.
50. Dzhuraevna, K. M. (2023). FEATURES OF THE OCCURRENCE OF DENTAL DISEASES IN CHILDREN. Лучшие интеллектуальные исследования, 12(1), 178-185.
51. Dzhuraevna, K. M. (2024). Prevalence and Course of Dental Diseases Among Younger Patients. Research Journal of Trauma and Disability Studies, 3(5), 433-436.
52. Dzhuraevna, K. M. (2024). Features of Caries Morbidity in Preschool Children. Research Journal of Trauma and Disability Studies, 3(3), 300-305.
53. Dzhuraevna, K. M. (2024). Clinical and Morphological Aspects of Cracks on The Back Teeth in Adults. Research Journal of Trauma and Disability Studies, 3(5), 429-432.
54. Хайитова, М. Д. (2023). РАСПРОСТРАНЕННОСТЬ И РАСПРЕДЕЛЕНИЕ ТРЕЩИН НА ЗАДНИХ ЗУБАХ СРЕДИ ВЗРОСЛЫХ ПАЦИЕНТОВ (ОБЗОР ЛИТЕРАТУРЫ). Лучшие интеллектуальные исследования, 12(1), 186-195.
55. Хайитова, М. Д. (2023). Особенности Возникновения И Течение Кариеса Зубов. Research Journal of Trauma and Disability Studies, 2(12), 356-363.
56. Хайитова, М. Д. (2023). КЛИНОКО-МОРФОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ВОЗНИКНОВЕНИЯ СТОМАТОЛОГИЧЕСКИХ ЗАБОЛЕВАНИЙ У ДЕТЕЙ. Лучшие интеллектуальные исследования, 12(1), 169-177.
57. Хайитова, М., & Тайлакова, Д. (2023). ВЗГЛЯД СТОМОТОЛОГА НА ГИГЕНУ ПОЛОСТИ РТА У ДЕТЕЙ. Инновационные исследования в современном мире: теория и практика, 2(23), 58-59.