



**PATHOLOGIC OCCLUSION AS WELL AS A WAY TO PREVENT  
SEVERE PATHOLOGIES THROUGH THE DIAGNOSIS OF  
TOOTH – JAWFORMATIONS IN EARLY-AGED CHILDREN  
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**Abstract:** In orthodontic patients, as well as early diagnosis of clinical signs of the disease, the organization of restoration of physiological functions of chewing efficiency in children is one of the pressing problems of pediatric orthodontic dentistry today.

**Keywords:** In children with pathological occlusion, it is possible to obtain dental – jaw joint before the occurrence of deformities, which are difficult to develop and treat pathologically, using the advantages of growth and rupture of teeth.

**Introduction**

It is considered promising to create a new way to correct pathological occlusion during the period of milk tooth priccus and tooth exchange, in order to restore physiological development in the area of the tooth – jaw system, prevent severe disorders in the tooth-jaw system and restore children's health.

Today, children with tooth row and occlusion disorders are often suckled the presence of problems with their breast milk absorption, against the background of speaking, breathing and feeding will be the basis for the development of this device. In early youth, there are analogues of the orthodontic device used in the movement of teeth and rows such as myofunctional trainers and plate-based removable orthodontic devices that prevent developing tooth jawneformations, better help in the period of growth of the facial sklet with quick pictures.

In fundamental research on the development of the tooth-jaw system, Björk A. as the main factor in the formation of a deep blockage of incisors, the violation of the direction of the lower jaw indicates that it is precisely due to its forward rotation. Also in these pathologies, hereditary sagittal dysproportion of the jaws occupies an important place, in which the occlusion is also disturbed in the vertical plane.

According to researchers, correction of bite pathology during the period of tooth replacement is the most preferable way, which often excludes the need for treatment in adulthood. But in the last decade, in most cases, treatment is carried out at the age of 13-15 years, when development is almost complete. In the early stages of development, the refusal to correct the dentition-jawomalia leads to expressive distortions in the facial skeleton. Quality and stagnation of results, Persin L. S. (2020) believe that children with tooth-jaw disorders are considered dependent on early diagnosis and treatment. The results of early treatment are more stable, rarely relapsing, since it has been found that it is associated with factors such as the development of growing tissues, the rupture of teeth and the growth of alveolar tumors in the formation of roots [2.4.6.8.10].

Deep blockage of incisors means generalizing about excessive blockage of the lower jaws with the upper jaws. The deep obstruction of the incisors is defined as the obstruction of the lower incisors to more than 1/3 of the tooth crown with the upper incisors. A. I. Under the Evdakimov

classification, deep blockage of incisors involves deep occlusion of the incisor tooth – the incisor contact is preserved and the incisor tooth contains deep dysocclusion – there is no incisor tooth Fusion, represented by more deep bite.

According to various authors, deep blockage of incisors is the most common form of pathology in children and adolescents, it accounts for 37.3% to 65% of the total number of dental jaw abnormalities. The prevalence of this pathology has been found to be associated with difficulty correcting in childhood and worsening clinical condition when teeth are frequently lost.

According to most authors, two-sided complete defects of the jaws in children are hereditary in nature. Bilateral complete defects of the jaws in children are changes in the skeleton of the face, one of the jaws – a violation of the macro – or micrognathic size; the middle of the face, extreme sagittal development of the tooth - jaw and shrinkage of the lower third of the face; increased tooth - jaw size and bending of the base; the anterior location of the; narrowing of the gonial angle; tooth-reflecting at alveolar height and leading to a decrease in the height of the face, stopping from the development of the lower jaw; chakka lower jaw and lower jawretroposis; the size of the lower symphysis; characterized by stopping the development of the lower jaws.

For the first time, Bjork A., who conducted fundamental research on the development of the tooth-jaw system. in the opinion of the lower jaw orientation, precisely in the front rotation, or in the area of the lower jaw, in the area of the premolars, the Centers of rotation are of fundamental importance in the formation of bilateral complete defects of the jaws in children. In this, the author believes that if the center of rotation of the lower jaw is in the area of its head, then in the development of bilateral complete defects of the jaws in children, a decrease in the front height of the face occurs, and in the area of the center of rotation – premolars, not only a decrease in the front height, but [1.3.5.7.9].

Due to the high prevalence of caries and its complications among children, the authors of our country and abroad have devoted their research to the importance of morphological changes in the dental-alveolar area, which are associated with premature loss of temporary and permanent teeth, often lateral teeth, and tooth loss. According to these authors, in the development of pathological occlusion in children, a violation of the rupture sequence of the peg teeth and premolars is significant after the early loss of milk teeth. A lack of space occurs when the peg teeth and premolars crack simultaneously or asymmetrically, as a result of which the peg teeth move mesially, accumulate in the frontal area, occlusion contacts are disrupted.

#### **Purpose of the study:**

The examination of pathological occlusion as well as dental – jawformations in early-aged children consists in the development of methods to prevent pathology that can develop.

**Object of study:** in the orthodontics department of the children's dental Polyclinic of the Bukhara region, 117 patient children aged 4– 17 years were taken, who were treated with mesial occlusion in 2020-2022.

Patient children with pathological occlusion diagnosis were examined from objective, subjective and dental examination methods (tonn, Dolgopolova, Snagina, Gerlach, Tanaka - Johnson methods) along with anthropometric methods. In our scientific research, the patient was studied by dividing children into 3 groups.

During the prikus period of milk teeth I, 21 patients aged 4.5 to 6 years were examined in children using the Dolgopolova method.

During the II Guruh exchange prikus, 49 patients aged 7 to 13 were examined in the tonn, Snagina, Tanaka - Johnson methods in children.

Group III permanent teeth were examined during the prikus period in 47 patients aged 13 to 17 years of age in the methods of tonn, pon – Linder – Hart, Gerlach, Snagina.

## Research results and discussion.

In the examined patient children, a traditional method of treatment and complex examination methods were carried out. Basic and additional examination methods were used for the sick children under examination. In the case of an objective examination, attention is paid to the location of the head and facial area of the child, the morphological structure of the upper and lower jaw, the inner part of the mouth, the location of the teeth in the tooth rows. In the subjective examination, however, a survey was carried out asking the parents of their children (transitional criteria of the condition during pregnancy, types of childbirth, types of nutrition of the child). From the methods of further examination, an examination was carried out through the orthodontic methods presented in the plan [11.13.15].

A patient with mesial occlusion diagnosis was found to have higher incidence rates in girls compared to boys when children were examined through orthodontic examination methods. The intergroup distribution of children with mesial occlusion by age, gender is shown.

I Group milk teeth during the prikus period, 21 patients between the ages of 4.5 and 6 were examined in children with Dolgopolova method.

**Dolgopolova method.** This method is one of the effective orthodontic examination methods and is a way to determine the bite position as well as the size of the tooth rows. Z.I. Using the Dolgopolova (1973) method, the transverse dimensions of the tooth rows were determined during the period of temporal bite of children's tooth-jaw. The anthropometric points of the shovel and pile teeth are the intersection of the palate nodules, and in the first and second molars, the transverse and longitudinal fissure on the surfaces of the chewing gum.

Examination I guruh milk teeth there is a pathological change in the jaws during the prikus period, anthropometric points for measuring the sagittal dimensions of the jaws in sick children from 4.5 to 6 years old the mesial angles of the central cranial teeth and the indicators of the intersecting points of the longitudinal and transverse fissures of the second molars were determined by the Dolgopolova method. Measurement of the sagittal dimensions of the jaws in sick children of different ages, anthropometric points mesial angles of the central cranial teeth oral surface and examination results of longitudinal and transverse fissure of the second molars are presented.

The size of the measurement points in the lateral cranial teeth, the carapace teeth, the first and second temporal molars were determined.

The original width of the dental arcs between the points indicated was measured.

By determining the sagittal dimensions of the tooth arch, the results of measuring the distance between the mesial angles of the central cranial teeth and the measurement points on the second molars with the stangentsircle were analyzed.

Based on the average transverse and sagittal dimensions of the dental Arch in children aged 4.5-6 years, through the Dolgopolova method, the results were evaluated by comparing the distances between the teeth with normal physiological indicators.

21 patients aged 4.5 to 6 years of age during the i-group milk teeth prikus period were found to have poor physiological diastema and tremas in children with 12 patients in the Dolgopolova method. Pathological occlusions were observed in children of 9 patients on the examination at the expense of macro and microdentium of the anomalous state of the tooth dimensions.

During the II Guruh exchange prikus, 49 patients aged 7 to 13 were examined in the tonn, Snagina, Tanaka - Johnson methods in children. In the diagnosis of pathological occlusions during exchange pricus, the upper cranial teeth were determined by the tonn index of the proportionality of mediolateral dimensions of the lower cranial teeth with the sum of mesiodistal dimensions [14.15.16].

Group III permanent teeth were examined during the prikus period in 47 patients aged 13 to 17 years of age in the methods of tonn, pon – Linder – Hart, Gerlach, Snagina.

During the period of permanent tooth prikus, the upper cranial teeth are mesiodistal in size with the lower cranial teeth mediolateral in size sum R. Data on the comparative sum of the dimensions of the upper and lower jaw teeth based on the correlation proportionality of the tone is presented.

Also, in the prikus of permanent teeth, the SI was calculated as an expression of the dimensions of the upper jaw teeth, as well as the sum of their indicators in the tonn index based on the sum of the morphological structure of the SI lower jaw teeth.

The analytical results of the tonn index in children of 47 patients between the ages of 13 and 17 during the period of the 3rd guru permanent prikus are considered to be effective methods for detecting pathological changes in permanent bite, i.e., defects in the tooth rows, by detecting foci of the upper and lower jaw teeth. The advantage of these methods is that the patient does not adversely affect the mental state of children during the examination process. At the same time it makes it possible to correctly and effectively identify etiological factors that affect the non-core in the prikus of permanent teeth. 47 patients between the ages of 13 and 17 during the period of the gallbladder permanent tooth prikus were examined on the tonn index in children as a result of a high level of macrodontia in the first and second cranial teeth of the upper jaw as a result of a violation of the morphological structure in the subsequent teeth located.

#### **Algorithm for measuring the upper jawmodel according to the Pon-Linder-Hart method:**

The four spars measure the sum of the width of the teeth at their widest point, which is 0.1 mm along the incision edge. measured in accuracy. The Pon formula was calculated by placing the sum of the mesiodistal width of the cranial teeth, the index of maharajiga – 85 (when determining the width between the premolars) or 65 (when determining the width between the molars), and measuring the width of the tooth arch between the premolars and molars.

In the first premolars, it was compared to find the measurement points and measure the original width of the tooth arch between them using a circular saw.

In the first molars, it was determined by finding the measurement points and using a circular saw the width of the tooth arch between them.

A comparative comparison of the original and sought-after width of the tooth arch between the premolars and molars was made.

Tooth extraction was also taken into account in the following situations.

– to determine if the central curler teeth are more than 10 mm when the curler teeth are densely located, side-more than 7.5 mm, the sum of the width of the curler teeth is 35 mm;

- the sum of the width of the curled teeth in a narrow type of face is based on cases of more than 33 mm;

In assessing the results obtained: if the dense arrangement of the frontal teeth and the tooth row between the premolars and molars narrowed by 6 mm, dental procedures were also carried out.

#### **Conclusions**

1.As a result of taking measures to detect anomalies and deformities of the gums early, pathological occlusions that are treated for years are corrected for 6-8 months.

2.After treatment, the dispensary is controlled and re-monitored every 4 months.

3.By restoring the myofunctional balance of the muscles, relapses are obtained, the normal functional development of the tooth and tooth rows is ensured. When applying a complex orthodontic device, it was achieved to reduce the recovery of patients from 8-12 to 6-8 months. After the application of a complex orthodontic device in sick children, a complete restoration of the state of chewing efficiency was achieved.



4. Patients with dental-jaw abnormalities are under the supervision of an orthodontist dentist. Carrying out diagnostic analyzes in the early diagnosis of patients with dental-jaw abnormalities and deformities. Improving the quality of life by restoring the state of chewy efficiency in patients with dental-jaw abnormalities and deformities.

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