



## PREVALENCE OF PHYSIOLOGICAL BITE FORMS IN PEOPLE WITH DIFFERENT FACE TYPES

Sanakhulov Jamshed

Assistant Professor of Samarkand State  
Medical University Uzbekistan, Samarkand  
inomjonakhmadov1994@gmail.com

### ANNOTATION

The aim of the study was to establish the dependence of the severity of physiological forms of bite on the type of face in young people, as well as to develop a diagnostic method that would allow us to study the structure of the dentition and their relationship with the structure of the facial skull. The study was conducted among students of the Faculty of Dentistry of KhNMU. We examined 50 men and 50 women aged 18 to 25 who had not previously undergone orthodontic treatment. To study the formed groups, we used anthropometric and index methods for diagnosing face types, facial proportions and the shape of the skull, the ratio of parts of the face of the skull, followed by determining the shape of the physiological occlusion.

**Keywords:** craniometry study, craniometry device, anthropometric and index diagnostic methods, orthopedic dentistry and orthodontics.

### Introduction

The effectiveness of orthodontic and orthopedic treatment largely depends on the correct diagnosis of changes in the dentition, which is sometimes very difficult and cannot be carried out without special research methods. Recently, there has been a need to study the morphology of the facial skull in order to develop modern methods for diagnosing orthodontic and orthopedic treatment. There is a need to develop a diagnostic method that allows studying the structure of the dentition and their relationship in conjunction with the structure of the facial skull in relation to a coordinate system that would be common and would correlate with the parameters of the jaws [1, 2].

In medical anthropology, much attention is paid to health problems in connection with the search for the “normal-pathological” line. All signs of a normal structure are found in many variations and determine a different degree of variability depending on sex, age and social status. Therefore, the task of medical anthropology is a comprehensive study of the normal variability of the signs of the morphological type of a person, the structure and patterns of development.





The local constitution is the cephalometric parameters of the facial part of the skull, which must be taken into account in dental practice, especially in orthopedic and orthodontic treatment. The values of the upper and lower jaws are individually different and depend to a certain extent on the size and shape of the facial and cerebral parts of the skull. Features of the development of the upper jaw create the individuality of the middle part of the face, which is reflected in its shape, and age-related changes in the size of the lower jaw and its displacement are reflected in the shape and profile of the face. Therefore, the improvement of methods for diagnosing and treating various dental diseases and dental prosthetics is currently impossible without an anthropological approach. The aim of the study was to establish the dependence of the severity of physiological forms of bite on the type of face in young people.

### **Materials and Research Methods**

The study was conducted among students of the Faculty of Dentistry SamSMU. The study included male and female persons aged 18 to 30 who had not previously received orthodontic treatment. The total number of examined people was 100, of which 50 were women and 50 were men, respectively, two groups were identified. To study the existing groups, anthropometric and index methods were used for diagnosing facial types, proportions of the facial region and the shape of the skull, the ratio of the parts of the facial region of the skull, followed by determining the shape of the physiological occlusion. We used our proposed device for craniometry [2]. It has more functionality than the standard caliper used in craniometry. With its help, it is possible to carry out craniometric studies directly in the clinical hall without the use of additional equipment. The proposed design of the caliper makes it possible to measure the distance between the convex and concave points of the frontal and occipital bones, pterygopalatine fossae, between the tubercles of the parietal bones, etc.

Cephalometric methods included measuring the following parameters: longitudinal and transverse diameters of the head; physiological and morphological height of the face; heights of the middle, nasal and gnathic parts of the face; mandibular diameter. Based on the obtained metric data, the main and facial indices were calculated. According to the Garson facial index, the type of face was determined (wide face - euren ; medium face - mezen and narrow face - lipten ). Using the Retzius index (cranial index), the shape of the skull was determined ( dolichocephalic - elongated, mesocephalic - intermediate, and brachycephalic - rounded).





## Results

According to the evaluation of the results of the cephalometric examination of the selected group, the highest indicators of the severity of the narrow type of face in women (47% of cases) and the wide type of face in men (43% of cases) were noted. Moreover, the average type of face in representatives of both sexes occurs with respect to the same frequency (W - 38%; M - 34%). At the same time, the average, maximum and minimum values of the size of the facial part of the narrow and medium types of faces in men and women are virtually identical. The same regularity can be noted with respect to the average and maximum values in subjects with a wide type of face, which cannot be said about the minimum indices of the index (W - 89.76; M - 92.25). When comparing the likely options for combining face types with forms of physiological occlusion, a greater severity of orthognathic occlusion was found in women with a narrow and medium type of face (24 and 20%, respectively). Women with a wide type of face are more likely to have a level bite (8% of cases), and this figure is slightly reduced compared to women with a narrow and medium type of face. In addition, women with a wide face have the slightest incidence of progeny (2% of cases). In the male sample, orthognathia dominates, regardless of the type of face, with only slight fluctuations in indicators (narrow face - 16%, medium face - 20%, wide face - 18%). Men with a wide type of face are characterized by the highest percentage of cases of progeny (16% of cases) compared with men of narrow (6% of cases) and medium (8% of cases) face types. Direct bite with the highest frequency is recorded in men with a narrow type of face, while in men with a wide and medium type of face, they have relatively the same values of manifestations of this form of physiological bite (8 and 6% of cases, respectively). When assessing the mandibular diameter, which indicates the width of the lower jaw, high values of this parameter were recorded in men, regardless of the type of face, while the maximum and minimum values are well monitored in men with an average face type. It was not possible to find any features in the severity of the mandibular diameter in the female sample. When comparing the classical combination of the shape of the skull with the types of faces, a complete correspondence was noted in men. In women, this pattern is preserved only in representatives with mesocephaly and brachycephaly. In women with dolichocephaly, a narrow face type is determined only in 80% of cases, the remaining 20% of cases fall on the average face type.

## Conclusion

Thus, on the basis of the craniometric study, we noted that the narrow type of face in 47% of cases occurs in women, the wide type of face in 43% of cases is determined in





men; the facial index for each type of face has relatively the same indicators, regardless of the gender of the person; mandibular diameter is most pronounced in males; the proportions of the facial part of the skull are preserved in men and women with a wide type of face; in women with a narrow and medium type of face, an orthognathic bite is more common, and in women with a wide type of face, a direct bite; in men, regardless of the type of face, an orthognathic type of bite is more often recorded. In men with a wide type of face, a progenic bite is also noted in large percentages. The findings confirm the expediency of taking into account the correspondence between the forms of physiological occlusion and face types in the clinical diagnostic examination of patients with pathology of the dentoalveolar system.

## References

1. Назарова Н. Ш., Норбутаев А. Б., Исмаилова С. О. Состояние твердых тканей зубов и пародонта у работающих в табаководстве //Достижения науки и образования. – 2020. – №. 6 (60). – С. 59-65.
2. Норбутаев А., Назарова Н. Оценка результатов уровня олигопептидов средней молекулярной массы в ротовой жидкости у работающих в производстве аммиачной и нитратной селитры //Общество и инновации. – 2021. – Т. 2. – №. 5. – С. 168-176.
3. 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. – С. 127-130.
4. Asrorovna X. N. et al. Methods Of Instrumental Treatment of Root Canals //Texas Journal of Medical Science. – 2021. – Т. 2. – С. 17-19.
5. Norbutaev A. et al. Results of the effect of complex treatments on perodonot microcirculation in child periodontitis with iron deficiency //European Journal of Molecular & Clinical Medicine. – 2020. – Т. 7. – №. 2. – С. 2020.

