



## TEETH WHITENING

***Khurramov Suhrobjon Abdunazarovich***

*Clinic Resident of the Department of Orthopedic Dentistry, Samarkand State Medical University  
Samarkand, Uzbekistan*

***Ortikova Nargiza Khayrullayevna***

*PhD, Assistant Department of Orthopedic Dentistry, Samarkand State Medical University Samarkand,  
Uzbekistan*

### ABOUT ARTICLE

**Key words:** Toothpastes, over-the-counter gels, mouthwashes, strips, mouthguards.

**Received:** 13.11.2024

**Accepted:** 18.11.2024

**Published:** 23.11.2024

**Abstract:** There are many systems and products for teeth whitening, including whitening toothpastes, over-the-counter gels, mouthwashes, strips, mouthguards and whitening products that can be obtained on the recommendation of a dentist.

### INTRODUCTION

There are many systems and products for teeth whitening, including whitening toothpastes, over-the-counter gels, mouthwashes, strips, mouthguards and whitening products that can be obtained on the recommendation of a dentist.

Teeth whitening is ideal for people with healthy unrefined teeth (without fillings) and gums. People with a yellow tinge of teeth react best. But this cosmetic procedure is not recommended for everyone.

#### **Teeth whitening systems**

It seems that it has never been so easy to make a snow-white smile at home at home. There are all kinds of products that you can try: mouthwashes, gels, chewing gum, toothpastes and strips.

However, if you decide to try whitening at home, experts recommend talking to your dentist first, especially if you have:

- sensitive teeth
- dental restorations
- very dark spots or one dark tooth
- many fillings or crowns

Home bleaches contain peroxides, usually carbamide (urea) peroxide, in an amount of 10% to 20%. It is better to choose a product with a peroxide level in the middle of this range. If the product does not irritate the oral mucosa, but does not give the desired lightening effect, you can choose a more

concentrated option. But if there are any questions, they are best solved after an in-person examination by a dentist, who will help you find the bleach that best suits the needs of a particular patient.

### **Whitening toothpastes**

All toothpastes remove only surface stains because they contain mild abrasives. Some whitening toothpastes contain mild polishing agents or chemicals that provide additional stain removal efficiency. Whitening toothpastes remove only surface stains and do not contain bleach per se; over-the-counter and professional whitening products contain carbamide peroxide or hydrogen peroxide, which lighten the color in the depth of the tooth. Whitening toothpastes can lighten the color of teeth by about one shade. On the contrary, prescription whitening performed in the dentist's office can make teeth lighter by three to eight tones at once, so the choice of product or technique also depends on the goal.

Over-the-counter whitening strips and gels



Whitening gels are transparent peroxide—based gels that are applied with a small brush directly to the surface of the teeth. The instructions vary depending on the concentration of peroxide. Follow the instructions on the label carefully. The initial results are visible after a few days, and the final results persist for about 4 months. The full course takes from 10 to 14 days. You may need to apply them twice a day.

Bleaching strips are very thin, almost invisible strips coated with a peroxide-based bleaching gel. The strips should be applied according to the instructions on the label. The initial results are visible after a few days, and the final results persist for about 4 months.

### **Whitening rinses**

Among the newest bleaching products available are bleaching rinses. Like most mouthwashes, they freshen your breath and reduce plaque and gum disease. But these products also contain ingredients such as hydrogen peroxide, which whiten teeth. Manufacturers say it may take 12 weeks to see the results. You just rinse them in your mouth for 60 seconds twice a day before brushing your teeth. However, some experts say that rinses may not be as effective as other over-the-counter bleaching products. Because the whitening rinse is only in contact with teeth for such a short time — just 2 minutes a day compared to 30 minutes for many strips — it may have less effect. To increase the effectiveness of whitening mouthwashes, some people first rinse their teeth and then brush their teeth with whitening toothpaste.

Teeth whiteners in mouthguards



Mouth guard-based teeth whitening systems, purchased either without a prescription or from a dentist, include mouth guards themselves filled with a gel bleaching solution that contains the same peroxide as a bleaching agent. Mouthguards are worn for a certain period of time, usually from a couple of hours a day to daily night care for up to 4 weeks or even longer (depending on the degree of discoloration and the desired level of bleaching). Such systems are significantly more expensive than all of the above, the price for them can reach tens of thousands of rubles.

#### **Tips for the safety of teeth whitening**

Follow the instructions. Do not leave the strips or gels longer than indicated in the instructions, otherwise you may have inflamed gums and other problems. After bleaching, avoid soda, sports drinks or other acidic drinks for several hours to protect your teeth.

Take care of sensitive teeth. Your teeth may be a little sensitive after whitening, but usually it won't last long. This may be less of a problem if your teeth and gums are in good shape. If this bothers you, stop the treatment and talk to your dentist. Gel-filled mouthguards that you wear over your teeth as mouthguards can also bother your gums if they don't fit well. It is recommended to stop using the product if you have this problem.

Don't overdo it. Is there too much bleaching? Things happen. But if you follow the instructions of the product and get a good result, one retouching session per month is usually enough. When your teeth get the desired shade, you will need to repeat several whitening sessions twice a year or less.

#### **Whitening at the dentist**



Whitening in the dentist's office is the fastest way to achieve your goal. In office bleaching, the bleaching product is applied directly to the teeth. These products can be used in combination with heat, special light or a laser. The results are visible only after one procedure lasting from 30 to 60 minutes. But it usually takes several appointments to achieve impressive results. However, with cabinet bleaching, impressive results can be seen after the first procedure. This type of bleaching is also the most expensive approach.

First, go through a professional cleaning and oral examination, even if you decide to whiten your teeth at home. You may only need a thorough cleaning to restore the shine to your smile.

Your dentist will also look for cavities and check the condition of your gums during the examination. Eliminating any problems before whitening is safer for the oral cavity.

Ask your dentist about which over-the-counter system to use and what kind of lightening you can expect. Teeth darken with age, and the degree of discoloration varies from person to person.

### **How long does the whitening effect last?**



Teeth whitening is not permanent. People who expose their teeth to foods and drinks that cause staining may notice that the whiteness begins to disappear after 1 month.

The degree of whiteness will vary from person to person depending on the condition of the teeth, the level of staining and the type of whitening system used.

### **Here are some tips on how to keep the color of bleached teeth:**

- Avoid foods and drinks that stain. Almost anything that contains acids or tannins can dull teeth. To keep your smile bright, avoid white and red wine, sports drinks, carbonated drinks (light and dark), black tea and coffee, berries and other brightly colored foods, as well as sauces such as soy, curry and tomato.
- Clean or rinse immediately after consuming drinks or products that cause stains.
- Follow the rules of oral hygiene. Brush your teeth at least twice a day, floss at least once a day to remove plaque, and rinse your mouth at least once a day with an antiseptic mouthwash to kill plaque-causing bacteria. Use a whitening toothpaste (only once or twice a week) to remove surface stains and prevent yellowing. The rest of the time, use regular toothpaste.

Dig in to produce calcium-rich foods as well. When you chew fruits and vegetables, it can help to "brush" your teeth. Think about how clean your mouth becomes after you eat a crunchy apple. Foods high in calcium, such as cheese, can help keep teeth white.

- Avoid tobacco. Cigarettes, cigars, pipes and chewing tobacco can cause yellowing of teeth. Give up tobacco and you will have whiter teeth and a healthier heart.
- Clean regularly in the dentist's office. Professional cleaning will remove plaque, which can get stains from food and drink. Your dental hygienist can help keep your teeth nice and beautiful.
- Drink through a straw. This will reduce the effect of coloring liquids on your teeth.
- Think about the touch-up procedures. Depending on the bleaching method used, you may need a touch-up every 6 months or after a year or two. If you smoke or drink a lot of drinks that cause blemishes, you may need to touch up your skin more often.

### **At home or under the supervision of a dentist**

The do-it-yourself methods are not the same as teeth whitening by a professional. Here are some critical differences.

**The power of the bleaching agent.** Over-the-counter products and products intended for home use under the supervision of a dentist usually contain a bleaching agent of lower strength with a content of carbamide peroxide from 10 to 22%, which is equivalent to about 3% hydrogen peroxide. Teeth whitening products professionally used in the office contain hydrogen peroxide in concentrations from 15% to 43%.

**Accuracy.** With the help of whitening products at home, your dentist will take an impression of your teeth and make a mouth guard that exactly matches your teeth. This individual setting ensures maximum contact between the whitening gel that is applied to the mouthpiece and the teeth. The custom-made mouth guard also minimizes gel contact with the gum tissue.

Over-the-counter bleaching products can also generally fit well, but the "one size fits all" approach means that the fit will not be accurate. Improperly selected mouthguards can irritate gums and soft tissues, allowing more whitening gel to seep onto these tissues. In office procedures, bleach is applied directly to the teeth.

**Additional protection measures.** In the office, your dentist will apply either gel to the gum tissue or use a rubber shield (which is put on the teeth) before treatment to protect your gums and oral cavity from the effects of bleaching. Over-the-counter products do not provide these additional protective measures.

**Expenses.** Over-the-counter bleaching systems are the least expensive option, and office bleaching is the most expensive.

**A controlled and uncontrolled process.** First of all, your dentist can perform an oral examination and examine your complete medical history, which can help determine whether bleaching is an appropriate course of treatment based on the type and degree of stains, as well as the number and location of restorations. Your dentist can then better select the type of spot with the best treatment, if necessary, to lighten these spots.

When your dentist does this, he will most likely want to see you a couple of times to clarify any questions about directions, make sure that the individual mouth guard fits correctly, check the gums for signs of irritation and generally see how the process works. With over-the-counter bleaching products, you are on your own.

Should I whiten my teeth?



**Bleaching is not recommended or will be less successful in the following cases:**

- Age and pregnancy issues. Bleaching is not recommended for children under 16 years of age. This is due to the fact that the pulp chamber or nerve of the tooth is enlarged before this age. Teeth whitening in this case can irritate the pulp or make it sensitive. Teeth whitening is also not recommended for pregnant and lactating women.
- Sensitive teeth and allergies. People with sensitive teeth and gums, gum recession, or restoration defects should consult their dentist before using a teeth whitening system. People with allergies to peroxide (bleaching agent) should not use bleaching agents.
- Gum disease, worn enamel, caries and exposed roots. People with gum disease or teeth with worn enamel are usually not recommended to undergo a teeth whitening procedure. Caries must be treated before any bleaching procedure. This is due to the fact that bleaching solutions penetrate into any existing caries and into the inner areas of the tooth, which can cause sensitivity. Also, whitening procedures will not work on exposed teeth roots, because the roots do not have an enamel layer.
- Fillings, crowns and other restorations. Tooth-colored fillings and polymer composite materials used in dental restoration (crowns, veneers, bonds, bridges) are not bleached. Therefore, the use of bleaching agent on teeth with restorations will lead to uneven bleaching — in this case, teeth without restorations will appear lighter than teeth with restorations. Any bleaching procedure should be carried out before the installation of restorations.
- For people with multiple restorations that can lead to uneven whitening, it is better to consider using bonding, veneers or crowns rather than a teeth whitening system. Ask your dentist which strategy is best for you.
- Unrealistic expectations. People who expect their teeth to turn "blindingly white" may be disappointed with their results. Smokers should be aware that their results will be limited if they do not abstain from further smoking, especially during the bleaching process. A healthy guideline is to achieve a shade slightly whiter than the whites of your eyes.

- Dark colored teeth. Yellowish teeth respond well to bleaching, brownish teeth react worse, and grayish or purple teeth may not respond to bleaching at all. Blue-gray staining caused by the antibiotic tetracycline is more difficult to lighten, and successful lightening may require up to six months of home treatment or several office visits.
- Teeth with dark spots may be the best candidates for another lightening option such as veneers, bonding or crowns. Your dentist can discuss the options that are most suitable for you.

### **Risks associated with bleaching**



Two side effects that most often occur with teeth whitening are a temporary increase in tooth sensitivity and mild irritation of the soft tissues of the mouth, especially the gums. Tooth sensitivity often occurs in the early stages of whitening. Tissue irritation most often occurs due to a poorly fitted mouth guard, and not because of a tooth whitening product. Both of these conditions are usually temporary and disappear within 1-3 days after discontinuation or completion of treatment.

If you experience hypersensitivity, you can reduce or eliminate it by following these steps:

- Wearing a mouth guard for a shorter period of time (for example, two sessions of 30 minutes instead of two sessions of 60 minutes).
- Stop teeth whitening for 2-3 days so that the teeth get used to the process.
- Ask your dentist about a high-fluoride product that will help remineralize your teeth. Apply the fluoride product to the mouthpiece and wear for 4 minutes before and after the bleaching agent.
- Brush your teeth with a toothpaste designed for sensitive teeth. These toothpastes contain potassium nitrate, which soothes the nerve endings of the teeth.

### **REFERENCES**

1. Asrorovna, X. N., Baxriddinovich, T. A., Bustanovna, I. N., Valijon O'g'li, D. S., & Qizi, T. K. F. (2021). Clinical Application Of Dental Photography By A Dentist. *The American Journal of Medical Sciences and Pharmaceutical Research*, 3(09), 10-13.
2. Ugli, A. A. A., & Bustanovna, I. N. (2024). STUDY OF THE CONDITION OF PARODONT IN PERIODONTITIS IN FETAL WOMEN. *European International Journal of Multidisciplinary Research and Management Studies*, 4(05), 149-156.

3. Kizi, J. O. A., & Bustanovna, I. N. (2024). FAMILIARIZATION WITH THE HYGIENIC ASSESSMENT OF THE CONDITION OF THE ORAL MUCOSA IN ORTHOPEDIC TREATMENT. *European International Journal of Multidisciplinary Research and Management Studies*, 4(05), 89-96.
4. Bustanovna, I. N. (2024). Determination of the Effectiveness of Dental Measures for the Prevention of Periodontal Dental Diseases in Workers of the Production of Metal Structures. *International Journal of Scientific Trends*, 3(5), 108-114.
5. Bustanovna, I. N. (2022). Assessment of clinical and morphological changes in the oral organs and tissues in post-menopause women. *Thematics Journal of Education*, 7(3).
6. Bustanovna, I. N., & Berdiqulovich, N. A. (2022). ПРОФИЛАКТИКА И ЛЕЧЕНИЯ КАРИЕСА У ПОСТОЯННЫХ ЗУБОВ. *JOURNAL OF BIOMEDICINE AND PRACTICE*, 7(1).
7. Bustanovna, I. N. (2024). PATHOGENESIS OF PERIODONTAL DISEASE IN ELDERLY WOMEN. *Лучшие интеллектуальные исследования*, 21(3), 25-29.
8. Bustanovna, I. N. (2024). TO STUDY THE HYGIENIC ASSESSMENT OF THE CONDITION OF THE ORAL MUCOSA DURING ORTHOPEDIC TREATMENT. *Лучшие интеллектуальные исследования*, 21(1), 9-15.
9. Bustanovna, I. N. (2024). CLINICAL AND LABORATORY CHANGES IN PERIODONTITIS. *Journal of new century innovations*, 51(2), 58-65.
10. Bustanovna, I. N. (2024). Morphological Changes in Oral Organs and Tissues in Women after Menopause and their Analysis. *International Journal of Scientific Trends*, 3(3), 87-93.
11. Bustanovna, I. N. (2024). Hygienic Assessment of The Condition of The Oral Mucosa After Orthopedic Treatment. *International Journal of Scientific Trends*, 3(3), 56-61.
12. Bustanovna, P. I. N. (2024). Further Research the Features of the Use of Metal-Ceramic Structures in Anomalies of Development and Position of Teeth. *International Journal of Scientific Trends*, 3(3), 67-71.
13. Bustanovna, I. N. (2024). The Effectiveness of the Use of the Drug "Proroot MTA" in the Therapeutic and Surgical Treatment of Periodontitis. *International Journal of Scientific Trends*, 3(3), 72-75.
14. Bustanovna, P. I. N. (2024). Research of the Structure of Somatic Pathology in Patients with Aphthous Stomatitis. *International Journal of Scientific Trends*, 3(3), 51-55.
15. Bustanovna, I. N., & Abdusattor o'g, A. A. A. (2024). Analysis of Errors and Complications in the Use of Endocal Structures Used in Dentistry. *International Journal of Scientific Trends*, 3(3), 82-86.
16. Bustanovna, I. N. (2024). Complications Arising in the Oral Cavity after Polychemotherapy in Patients with Hemablastoses. *International Journal of Scientific Trends*, 3(3), 62-66.
17. Bustanovna, I. N., & Sharipovna, N. N. (2023). Research cases in women after menopause clinical and morphological changes in oral organs and their analysis. *Journal of biomedicine and practice*, 8(3).
18. Bustonovna, I. N., & Sharipovna, N. N. (2023). Essential Factors Of Etiopathogenesis In The Development Of Parodontal Diseases In Post-Menopasis Women. *Eurasian Medical Research Periodical*, 20, 64-69.
19. Fakhridin, C. H. A. K. K. A. N. O. V., Shokhruh, S. A. M. A. D. O. V., & Nilufar, I. S. L. A. M. O. V. A. (2022). ENDOKANAL PIN-KONSTRUKSIYALARNI ISHLATISHDA ASORATLAR VA XATOLAR TAHLILI. *JOURNAL OF BIOMEDICINE AND PRACTICE*, 7(1).



20. Очиллов, Х. У., & Исламова, Н. Б. (2024). Особенности артикуляции и окклюзии зубных рядов у пациентов с генерализованной формой повышенного стирания. SAMARALI TA'LIM VA BARQAROR INNOVATSIYALAR JURNALI, 2(4), 422-430.
21. Ortikova, N., & Rizaev, J. (2021, May). The Prevalence And Reasons Of Stomatophobia In Children. In E-Conference Globe (pp. 339-341).
22. Ortikova, N. (2023). ANALYSIS OF ANESTHESIA METHODS FOR DENTAL FEAR AND ANXIETY. Центральноеазиатский журнал академических исследований, 1(1), 8-12.
23. Ortikova, N. K. (2023). DENTAL ANXIETY AS A SPECIAL PLACE IN SCIENTIFIC KNOWLEDGE. SCHOLAR, 1(29), 104-112.
24. Исламова, Н. Б. (2024). ПАРОДОНТ КАСАЛЛИКЛАРИДА ОРГАНИЗМДАГИ УМУМИЙ ЎЗГАРИШЛАРНИ ТАҲЛИЛИ ВА ДАВОЛАШ САМАРАДОРЛИГИНИ ТАКОМИЛЛАШТИРИШ. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 43(7), 18-22.
25. Islamova, N. B., & Chakkonov, F. K. (2021). Changes in the tissues and organs of the mouth in endocrine diseases. Current Issues in Dentistry, 320-326.
26. Исламова, Н. Б., & Исломов, Л. Б. (2021). Особенности развития и течения заболеваний полости рта при эндокринной патологии. ББК, 56, 76.
27. Исламова, Н. Б., & Назарова, Н. Ш. (2023). СУРУНКАЛИ ТАРҚАЛГАН ПАРОДОНТИТ БИЛАН КАСАЛЛАНГАН ПОСТМЕНОПАУЗА ДАВРИДАГИ АЁЛЛАРНИНГ ПАРОДОНТ ТЎҚИМАСИНИНГ ДАВОЛАШ САМАРАДОРЛИГИ ОШИРИШ. ЖУРНАЛ СТОМАТОЛОГИИ И КРАНИОФАЦИАЛЬНЫХ ИССЛЕДОВАНИЙ, 4(2).
28. Исламова, Н. Б. (2024). ПАРОДОНТИТ КАСАЛЛИГИДА ОРГАНИЗМДАГИ УМУМИЙ ВА МАҲАЛЛИЙ ЎЗГАРГАН КЎРСАТКИЧЛАРНИНГ ТАҲЛИЛИ. Журнал гуманитарных и естественных наук, (8), 23-27.
29. Islamova, N. B., & Sh, N. N. (2023, May). STUDY OF CHANGES IN PERIODONTAL DISEASES IN POSTMENOPAUSAL WOMEN. In Conferences (pp. 15-17).
30. Исламова, Н. Б., & Назарова, Н. Ш. (2023, May). Совершенствование диагностики и лечения хронического генерализованного пародонтита у женщин в период постменопаузы. In Conferences (pp. 13-15).
31. Islamova, N. B., & Nazarova, N. S. (2023). IMPROVING THE DIAGNOSIS AND TREATMENT OF CHRONIC GENERALIZED PERIODONTITIS IN POSTMENOPAUSAL WOMEN. Conferences.
32. Исламова, Н. Б. (2023). Гемодинамика тканей пародонта зубов по данным реопародонтографии.
33. Исламова, Н. Б., & Назарова, Н. Ш. (2023). МЕТОДЫ ИССЛЕДОВАНИЯ ЗАБОЛЕВАНИЙ ПАРОДОНТА У ЖЕНЩИН, НАХОДЯЩИХСЯ В ПЕРИОДЕ ПОСТМЕНОПАУЗЫ. In АКТУАЛЬНЫЕ ВОПРОСЫ СТОМАТОЛОГИИ (pp. 334-338).
34. Исламова, Н. Б. (2024). Complications Arising in the Oral Cavity after Polychemotherapy in Patients with Hemablastosis. International Journal of Scientific Trends, 3(3), 76-81.
35. Islamova, N. B. (2022). CHANGES IN PERIODONTAL TISSUES IN THE POSTMENOPAUSAL PERIOD. In Стоматология-наука и практика, перспективы развития (pp. 240-241).
36. Назарова, Н., & Исломов, Л. (2022). Этиопатогенетические факторы развития заболеваний пародонта у женщин в периоде постменопаузы. Профилактическая медицина и здоровье, 1(1), 55-63.

37. Иргашев, Ш. Х., & Исламова, Н. Б. (2021). Применение и эффективность энтеросгеля при лечении генерализованного пародонтита. In Актуальные вопросы стоматологии (pp. 305-310).
38. Иргашев, Ш., Норбутаев, А., & Исламова, Н. (2020). Эффективность энтеросгеля при лечении генерализованного пародонтита у ликвидаторов последствий аварии на черновыльской АЭС. Общество и инновации, 1(1/S), 656-663.
39. Исламова, Н. Б. (2016). Сравнительная оценка противовоспалительных цитокинов крови в развитии заболеваний полости рта при гипотиреозе. Наука в современном мире: теория и практика, (1), 41-44.
40. Исламова, Н. Б., Шамсиев, Р. А., Шомуродова, Х. Р., & Ахмедова, Ф. А. (2014). Состояние кристаллообразующей функции слюны при различных патологиях. In Молодежь и медицинская наука в XXI веке (pp. 470-471).
41. Исламова, Н., & Чакконов, Ф. (2020). Роль продуктов перекисного окисления липидов и противовоспалительных цитокинов крови в развитии заболеваний полости рта при гипотиреозе. Общество и инновации, 1(1/s), 577-582.
42. Исламова, Н., Хаджиметов, А., & Шакиров, Ш. (2015). Роль продуктов перекисного окисления липидов и противовоспалительных цитокинов крови в развитии заболеваний полости рта при гипотиреозе. Журнал проблемы биологии и медицины, (1 (82)), 41-44.
43. Исламова, Н. Б., & Чакконов, Ф. Х. (2021). Изменения в тканях и органах рта при эндокринных заболеваниях. In Актуальные вопросы стоматологии (pp. 320-326).
44. Nazarova, N. S., & Islomova, N. B. (2022). postmenopauza davridagi ayollarda stomatologik kasalliklarining klinik va mikrobiologik ko 'rsatmalari va mexanizmlari. Журнал" Медицина и инновации", (2), 204-211.
45. Nazarova, N. S., & Islomova, N. B. (2022). postmenopauza davridagi ayollarda stomatologik kasalliklarining klinik va mikrobiologik ko 'rsatmalari va mexanizmlari. Журнал" Медицина и инновации", (2), 204-211.
46. Sulaymonova, Z. Z., & Islamova, N. B. (2023, May). TAKING IMPRESSIONS IN THE ORAL CAVITY AND THEIR REDUCTION. In Conferences (pp. 21-23).
47. Sharipovna, N. N., & Bustonovna, I. N. (2022). Etiopatogenetic factors in the development of parodontal diseases in post-menoposis women. The american journal of medical sciences and pharmaceutical research, 4(09).
48. Sarimsokovich, G. M. (2023). LATEST METHODS OF STUDY OF PERIODONTAL DISEASE IN WOMEN. European International Journal of Multidisciplinary Research and Management Studies, 3(10), 242-250.
49. DENTAL PROSTHETICS. Лучшие интеллектуальные исследования, 18(4), 31-35.
50. Содикова, Ш. А., & Исламова, Н. Б. (2021). Оптимизация лечебно-профилактических мероприятий при заболеваниях пародонта беременных женщин с железодефицитной анемией. In Актуальные вопросы стоматологии (pp. 434-440).
51. Чакконов, Ф. Х. (2021). ЯТРОГЕННЫЕ ОШИБКИ В СТОМАТОЛОГИИ И ИХ ПРИЧИНЫ. In Актуальные вопросы стоматологии (pp. 925-930).
52. ЧАККОНОВ, Ф., САМАДОВ, Ш., & ИСЛАМОВА, Н. (2022). ENDOKANAL PIN-KONSTRUKSIYALARNI ISHLATISHDA ASORATLAR VA XATOLAR TAHLILI. ЖУРНАЛ БИОМЕДИЦИНЫ И ПРАКТИКИ, 7(1).

- 53.** Xusanovich, C. F., Orzimurod, T., Maruf, U., & Ollomurod, X. (2023). PROSTHETICS A COMPLETE REMOVABLE PROsthESIS BASED ON IMPLANTS. *European International Journal of Multidisciplinary Research and Management Studies*, 3(11), 122-126.
- 54.** Xusanovich, C. F., Sunnat, R., & Sherali, X. (2024). CLASP PROSTHESES-TECHNOLOGY IMPROVEMENT. *European International Journal of Multidisciplinary Research and Management Studies*, 4(03), 152-156.