

# Treatment of Periodontitis Features, Methods and Stages

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**Abstract:** Periodontitis is a common disease of the oral cavity. This is a hidden inflammatory process of the tooth root, which can cause a number of serious complications. In the initial stages, such a pathology can be detected only with the help of X-ray. However, this disease is often accompanied by inflammation of the gums, severe pain and other unpleasant sensations. Treatment of periodontitis can be very long and is carried out using therapeutic and surgical methods. Let's find out what methods can be used and what indicators they have.

**Key words:** Exacerbation and complications of the disease, Choice of treatment method, Conservative treatment, Surgical treatment, Treatment of periodontitis with fistula.

## Why does periodontitis occur?

This pathology is characterized by inflammation of the tooth root and the membranes of nearby tissues. Most often, the disease is caused by the spread of infection from the root canal. In about 90% of cases, periodontitis is one of the complications of caries (it was not treated in time). Caries, if left untreated, gradually leads to tooth decay, a process that eventually affects the pulp. After that, there is a risk of developing inflammation in the root part.

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## Causes and symptoms of periodontitis

The main reason for the development of pathology is a violation of the integrity of the nerve with damage to the ligamentous apparatus that holds the tooth. This can happen:

due to lack of caries or improper treatment;

pulpitis of any form and stage affecting connective tissue;

mechanical damage to the tooth root;

breaking the integrity of the filling installed in the root canal;

incorrect placement of dental units;

constant overloading of teeth due to incorrect position;

damage to the body by pathogenic microorganisms - staphylococci, streptococci, E. coli and other bacteria;

Chronic diseases of the ENT organs - sinusitis, sinusitis, tonsillitis, etc.;

incorrect or long-term use of certain groups of drugs.

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Caused by periodontitis

Symptoms vary depending on the type and stage of the disease, but common symptoms include a sharp aching pain in the affected area, pain when chewing food or pressing on the tooth, and a feeling that the tooth is cracking from the inside. Patients often have pus discharge from the gums and an unpleasant odor from the oral cavity. The gums become red, swelling of soft tissues appears. Sometimes the pain spreads to the ears or temples.

### **Types, stages of periodontitis**

Periodontitis can be primary, which develops against the background of untreated dental diseases, and can be secondary due to pathological processes in the body. Classification of periodontitis depending on the type of traumatic factor:

Infectious - often occurs as a result of untimely or improper treatment of caries.

Traumatic - formed after a mechanical injury (impact of a fall on the face, tooth fracture, deep damage to tooth enamel, for example, due to wire biting). It usually appears in an acute form.

Drug-related - develops after improper treatment of pulpitis and the penetration of strong drugs (arsenic, formalin, etc.) into the deep layers of the periodontium - the connective tissue of the tooth.

### **Types of periodontitis**

In the first stage, tissue infection occurs. At this stage, the treatment is effective, if the doctors' recommendations are followed, complications are not observed; As it develops, the formation of pathogenic foci with purulent discharge begins. Here we are already talking about longer treatment with the use of various drugs. If you do not consult a doctor, a severe form of pathology affecting internal organs will develop.

### **Chronic**

Chronic periodontitis is divided into three forms:

fibrous - with disabled symptoms;

granulomatosis - an abscess with purulent content begins to form, the symptoms become more pronounced;

granulation - severe pain occurs, an irreversible process of destruction of the affected bone tissue begins.

In the chronic form, in the acute stage, the patient experiences unbearable pain that does not go away even after taking medication, the body temperature rises, and a painful headache appears. The general condition also worsens, weakness of the gums and face, redness and swelling are noted, the affected tooth becomes mobile.

A chronic course is dangerous, because pathogenic microorganisms gradually penetrate into the deep layers of tissues. This leads to their death. Then the inflammation spreads to the nearby structures and destroys the bone tissue.

### **Bitter**

The acute form develops quickly, accompanied by pain, which increases rapidly not only when pressing on the affected tooth, but also at rest. In this case, the pain syndrome is often pulsating or shooting in nature. The temperature rises in the soft tissues, the gums become red and swollen. The formed fistula gradually increases in size. After opening it, the pathogenic content comes out through the fistula channel, the swelling decreases and the pain becomes moderate. At this stage, many patients think that the pathology has receded, but soon it will return again, but with more severe symptoms.



Important! Often, when acute pain occurs, patients start taking painkillers. Perhaps the pain syndrome will weaken, but it will not last long. Therefore, you should consult a doctor who will diagnose and prescribe adequate therapy.

### **Diagnosis of periodontitis**

After a visual examination and questioning of the patient, the doctor gives a referral for electroodontometry. The technique is very informative and allows to assess the vitality of the pulp of permanent teeth. The diagnosis involves the application of electric current to the affected tooth section, after which the specialist assesses the degree of irritation:

usually the values vary from 6 to 8  $\mu\text{A}$ ;

units increase to 95  $\mu\text{A}$  during inflammation;

complete death of the pulp - above 100 mA;

in chronic form, the device shows from 110 to 160  $\mu\text{A}$ ;

acute form is determined at the level from 180 to 200  $\mu\text{A}$ .

X-ray examination is performed after electroodontometry. In the chronic form, if the symptoms are mild, the picture helps to identify the pathology. If there is a suspicion of diseases of the internal organs, the patient is sent to the appropriate specialist for consultation.

Methods of treatment of periodontitis

Treatment of periodontitis

### **Therapeutic measures are divided into two groups:**

Conservative treatment - at the first appointment, the doctor drills the infected tissue, removes the nerve, cleans the canals, treats the patient's oral cavity with antiseptics, and then installs a temporary filling. The procedure is performed under local anesthesia. After 2-3 days, the temporary filling is removed, antiseptic treatment and temporary filling are performed. At the third appointment, an X-ray is taken, the doctor thoroughly washes the canals, and then installs a permanent filling. In addition, antibiotics, anti-inflammatory drugs and physiotherapeutic procedures are prescribed - UHF, laser therapy or electrophoresis.

Surgical intervention - used for severe forms, includes partial or complete removal of the infected tooth. When the pathological process develops, the tooth unit is completely removed along with the root, and then a prosthesis is made.

Surgery is the last resort when conservative treatment fails. In most cases, doctors try to save at least part of the tooth and build the missing space using composite materials or crowns.

Low-quality treatment of caries or pulpitis.

Maxillofacial injuries.

Long-term use of certain drugs, etc.

There are infectious and non-infectious periodontitis. In the first case, the inflammatory process occurs as a result of the activity of microorganisms. They enter the periodontium through the root canal. Non-infectious pathologies are associated with damage to damaged tissues. In particular, traumatic extirpation (removal) of the pulp can lead to this condition.

With periodontitis, the ligament that holds the tooth is damaged. This explains the mobility of the tooth section and pain when touched. The resulting inflammatory process sometimes leads to enlargement of the regional lymph nodes. Sometimes the pathology is asymptomatic - in this case, a granuloma with a "bag" is formed at the apex of the tooth root. In other cases, there is a risk of a cyst that leads to constant recurrence of the disease. Periodontitis develops very quickly, so treatment should be started when the first signs of pathology appear.



## Symptoms of periodontitis

There are a number of common symptoms that are characteristic of different forms of the disease. This is:

Unpleasant rotten smell from the mouth.

Bleeding from the gums (often occurs when brushing the teeth).

Painful sensations when chewing food.

A feeling that the tooth has "grown" or enlarged.

The clinical presentation for each form of periodontitis is slightly different, so only a dentist can accurately diagnose the type.

## Types of diseases

There are two main forms of the disease - acute and chronic. Acute periodontitis has a serous or purulent character. As a rule, this form is characterized by a clear clinical picture. Chronic periodontitis is divided into three types:

**Fibrous.** It is characterized by a change in the color of the tooth and there may be a complete absence of painful sensations. Often, the pathology does not manifest itself even when the nerve is completely destroyed. Therefore, the fibrotic form can be determined only during X-ray diagnostics.

**Granulation.** There is a slight pain in the tooth, a feeling of bursting in the gums, swelling and redness. When you press on the gums, a strong throbbing pain appears.

**Granulomatosis.** In rare cases, swelling and redness of the gums appear. But often this form does not have a clear clinical picture. In this case, the pathological tissue turns into a granuloma, which can be very dangerous. Depending on the location, there are several forms of the disease:

Apical periodontitis is characterized by inflammation at the apex of the root.

Marginal - associated with inflammation in the round ligament of the teeth.

## Disease progression and complications

Any form of the disease should be treated, even if there are no serious symptoms. Chronic periodontitis can always progress to an acute stage. In addition, this pathology often leads to the development of a number of dangerous complications:

**Abscess.** When it appears near the root, a purulent focus is formed. It is constantly increasing in size, which causes severe discomfort.

**Fistula.** A small hole appears in the gum, which is a channel for the natural drainage of accumulated pus. At the same time, the inflammatory process continues actively, so pus is constantly released.

**Phlegmon.** With this complication, the abscess affects soft tissues, including the face and neck. The patient may even experience swelling of the tongue and severe asymmetry of the face.

**Osteomyelitis.** Disruption of bone tissue occurs. The infection affects the jaw and can lead to its complete destruction.

**Tooth loss.** The development of infection leads to bone atrophy. As a result, the tooth may be lost. In severe cases, there is a risk of complete toothlessness (that is, the loss of all teeth).

**Sepsis.** With this complication, pus enters the bloodstream and becomes infected. It can cause damage to various organs and systems of the body.

## Choosing a treatment method

Before starting treatment in our clinic, periodontitis must be diagnosed. A panoramic photo of the teeth is taken to determine the inflammatory process and its location. A visual examination of the oral cavity is also performed to understand the state of the damaged teeth and gums. Based on the results of the



diagnosis, the doctor chooses one of the treatment methods - conservative or surgical. In most cases, conservative methods are preferred: they are indicated for acute and chronic forms of the disease and can be used in the presence of granulomas and cysts and extensive inflammatory processes.

periodontitis

However, sometimes surgical treatment is required. The instructions are as follows:

Obstruction of dental canals.

The presence of a round label or pin.

A large area of damage (more than 10 mm of tissue is affected).

Perforation of the tooth cavity.

Multiple perihilar cysts.

The ineffectiveness of conservative methods.

### **Conservative treatment**

Treatment of the disease is carried out in several stages and requires at least 2-3 visits to the dentist. A permanent filling is not placed until the inflammation is completely gone. Therefore, one-time periodontitis cannot be treated. When choosing a conservative method, the stage of the disease (acute, chronic, chronic exacerbation), as well as the individual characteristics of the patient, are taken into account. Often, treatment is carried out in the following sequence:

Preparation for the procedure, use of local anesthesia.

Drilling the tissue to access the canals (to remove the nerve or remove the old filling).

Expanding the channels, treating them with an antiseptic.

Use of drugs.

Installation of a temporary filling.

At the next appointment (usually after 2-3 weeks), the doctor removes the temporary filling and performs antiseptic treatment of the canals. This process can be repeated several times until the source of inflammation is completely eliminated. If inflammation is still observed, the doctor will place a new temporary filling. All treatments are repeated at the next appointment.

Before installing a permanent filling, it is necessary to take control photos of the teeth to confirm that the inflammation in periodontitis has been completely eliminated. Later, the channels are filled. Modern light-resistant materials are used to restore the shape of the crown.

In addition, the patient can be prescribed antibacterial and anti-inflammatory therapy, as well as rinsing the mouth with special disinfectant solutions. The treatment process of dental periodontitis can last 2-3 months.

### **Surgical treatment**

If conservative treatment fails, surgical treatment is necessary. Surgical procedures include:

Removal (resection) of a part of the tooth root.

Removal of the cyst.

Remove the entire root.

Such methods are very traumatic and do not always lead to a positive result, so in the end it may be necessary to completely remove the tooth.

### **Treatment of periodontitis with fistula**

A frequent complication of pathology (mainly granulation) is an odontogenic fistula. This is a small hole in the mucous membrane, which appears due to the growth of granulation and the destruction of



the tissues around the tooth. In complex cases, the fistula appears not only on the gum, but also on the skin (for example, on the cheek). Purulent content is released through this opening, which on the one hand slightly eases the course of the disease. On the other hand, it can be dangerous and cause dentition.

In this case, the treatment is aimed at eliminating the cause of the fistula - that is, treating the inflammatory process in the periodontal tissues. Therapy is carried out according to the standard scheme, including mechanical cleaning of the canals and their subsequent disinfection. With this, after some time, the fistula will disappear and the tissues will return to normal.

### **Treatment of chronic forms**

Therapy for fibrosis and granulating periodontitis is often carried out using conservative methods. Sometimes resection of the upper part of the root is required. The choice of treatment tactics for the granulomatous form depends on the size of the granulomas that appear in the area of inflammation. If the ducts have good permeability and the tumors are small, a conservative method can be used. In other cases, surgical treatment is required, which often involves resection of the root apex. If it is necessary to remove more than 2/3 of the apical part of the root to successfully eliminate the pathology, then a decision can be made to remove the tooth completely.

### **Treatment at home**

A question often asked by patients is whether such a disease can be cured by itself. Unfortunately, this is not possible. Without treating the canals, no washing or disinfecting solutions will help to eliminate the inflammatory process of the root. Only a short-term improvement of the condition can be observed: the patient notes a decrease in pain, the disappearance of swelling and redness of the gums. This may mean that periodontitis has passed into a chronic stage, but is not completely eliminated.

### **Reference:**

1. Asrorovna X. N., Muzaffarovich M. S. CLINICAL STUDY OF THE EFFECTIVENESS OF MODERN ANTIVIRAL DRUGS FOR THE TOPICAL TREATMENT OF PATIENTS WITH HERPES SIMPLEX LIPS //European International Journal of Multidisciplinary Research and Management Studies. – 2024. – T. 4. – №. 02. – С. 301-304.
2. Asrorovna K. N. et al. Periodontal Tissue Changes in Patients with Diabetes //EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2024. – T. 4. – №. 2. – С. 74-77.
3. Xolboeva N. et al. PATHOLOGICAL CHANGES IN THE ORAL MUCOSA IN DIABETES MELLITUS //Science and innovation. – 2023. – T. 2. – №. D12. – С. 493-496.
4. Xolboeva N., Murtazaeva Z., Shukurova M. CHANGES IN THE ORAL MUCOSA IN TUBERCULOSIS //Science and innovation. – 2023. – T. 2. – №. D12. – С. 76-78.
5. Холбоева Н. А., кизи Усмонова М. И., угли Бахтиёров М. А. ILDIZ KANALLARINI KIMYOVIY MODDALAR BILAN MEXANIK ISHLOV BERISH VA KENGAYTIRISH //Евразийский журнал медицинских и естественных наук. – 2022. – Т. 2. – №. 5. – С. 186-188.
6. Asrorovna X. N., Ugli J. O. M., Ugli K. S. F. THE MAIN CLINICAL FEATURES OF THE ORAL CAVITY OF PREGNANT WOMEN SUFFERING FROM GINGIVITIS //European International Journal of Multidisciplinary Research and Management Studies. – 2023. – T. 3. – №. 10. – С. 258-262.
7. Xolboeva N., Murtazaeva Z., Safoeva S. PATHOLOGICAL CHANGES IN THE MUCOUS MEMBRANE OF THE ORAL CAVITY IN DIABETES //Science and innovation. – 2023. – T. 2. – №. D12. – С. 72-75.
8. Asrorovna K. N., Davlatmurodovich E. K. Changes of Dental Hard Tissue in Diabetes Mellitus //EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2024. – T. 4. – №. 3. – С. 33-37.



9. Asrorovna K. N., Melidior R. MODERN INTERPRETATION OF THE CHANGES AND TREATMENT OF THE MUCOUS MEMBRANE OF THE ORAL CAVITY IN TUBERCULOSIS //EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2024. – Т. 4. – №. 2. – С. 475-480.
10. Asrorovna X. N., Muzaffarovich M. S. IMMUNOLOGICAL INDICATORS OF VIRAL INFECTION IN PATIENTS WITH LICHEN PLANUS OF THE ORAL MUCOSA //European International Journal of Multidisciplinary Research and Management Studies. – 2024. – Т. 4. – №. 02. – С. 305-308.
11. Xolboeva N., Xaydarova D. PROVISION OF THERAPEUTIC DENTAL CARE AND PREVENTIVE MEASURES DURING PREGNANCY //Science and innovation. – 2022. – Т. 1. – №. D6. – С. 179-181.
12. Asrorovna X. N. et al. Methods Of Instrumental Treatment of Root Canals //Texas Journal of Medical Science. – 2021. – Т. 2. – С. 17-19.
13. Asrorovna H. N., Badridinovich T. A., Kizi T. K. F. Evaluation of the effectiveness of non-invasive methods of treatment of periodontal tissues in violation of glucose hemostasis. – 2021.
14. Муратова С. К. и др. ЭФФЕКТИВНОСТЬ ПРИМЕНЕНИЯ ИММУНОМОДУЛЯТОРОВ В ВОСПАЛИТЕЛЬНЫХ ЗАБОЛЕВАНИЯХ СЛИЗИСТОЙ ОБОЛОЧКИ ПОЛОСТИ РТА //АКТУАЛЬНЫЕ ВОПРОСЫ СТОМАТОЛОГИИ. – 2019. – С. 152-154.
15. Asrorovna K. N. Changes in the Mucous Membrane of the Oral Cavity in Leukemia //EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE. – 2024. – Т. 4. – №. 2. – С. 316-319.
16. Asrorovna H. N., Muhridin B., Shohruh L. Change of Oral Mucus in Patients with Diabetes //Eurasian Medical Research Periodical. – 2022. – Т. 15. – С. 51-55.
17. Холбоева Н. А., Хайдарова Д. М. МЕХАНИЧЕСКАЯ ОБРАБОТКА И РАСШИРЕНИЕ КОРНЕВЫХ КАНАЛОВ ХИМИЧЕСКИМИ ПРЕПАРАТАМИ (ЭНДОЛУБРИКАНТЫ) //Вестник науки и образования. – 2022. – №. 4-1 (124). – С. 88-92.
18. Munisovna X. D. COMPLEX METHODS OF TREATMENT OF CHRONIC PERIODONTITIS //Conferences. – 2023. – С. 36-40.
19. Munisovna K. D. et al. GINGIVITIS IN PEOPLE: FEATURES OF DIAGNOSIS, CLINICAL MANIFESTATIONS AND TREATMENT //ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ. – 2023. – Т. 20. – №. 3. – С. 58-62.
20. Xaydarova D., Tilavov X. TREATMENT OF PULP PATHOLOGY IN PATIENTS WITH CHRONIC PERIODONTITIS //Science and innovation. – 2023. – Т. 2. – №. D12. – С. 79-82.
21. Хайдарова Д. ПРИМЕНЕНИЕ СОВРЕМЕННЫХ АНТИСЕПТИКОВ ДЛЯ ПРОФИЛАКТИКЕ В РАЗВИТИЕ ПЕРЕИМПЛАНТАТАХ //Евразийский журнал медицинских и естественных наук. – 2022. – Т. 2. – №. 6. – С. 62-68.
22. ВАЛИЕВА, С. Ш., НАБИЕВ, О. Р., ХАЙДАРОВА, Д. М., ГАППАРОВ, Ж. З. У., & НАСРЕТДИНОВА, М. Т. ВЕСТНИК НАУКИ И ОБРАЗОВАНИЯ. ВЕСТНИК НАУКИ И ОБРАЗОВАНИЯ Учредители: Олимп, 76-81.
23. Asrorovna X. N. et al. Anatomy And Topography of The Tooth //Texas Journal of Medical Science. – 2022. – Т. 4. – С. 1-3.
24. Xolboeva N., Xaydarova D. BIOLOGICAL METHODS OF TREATMENT OF PULPITIS //Science and innovation. – 2022. – Т. 1. – №. D8. – С. 73-78.
25. Asrorovna X. N., Munisovna X. D. COMPLEX METHODS OF TREATMENT OF CHRONIC PERIODONTITIS //Journal of Integrated Education and Research. – 2023. – Т. 2. – №. 1. – С. 53-56.



26. Kholboeva N. A., Khaydarova D. M. MECHANICAL TREATMENT AND EXPANSION OF ROOT CANALS WITH CHEMICAL PREPARATIONS (ENDOLUBRICANTS) //Bulletin of Science and Education. – С. 4-1.
27. Munisovna I. R. H. D. et al. TREATMENT OF TEETH DAMAGED BY SURFACE CARIES IN REM-THERAPY MODE //Galaxy International Interdisciplinary Research Journal. – 2023. – Т. 11. – №. 11. – С. 513-515.
28. Холбоева Н. А., Хайдарова Д. М. МЕХАНИЧЕСКАЯ ОБРАБОТКА И РАСШИРЕНИЕ КОРНЕВЫХ КАНАЛОВ ХИМИЧЕСКИМИ ПРЕПАРАТАМИ (ЭНДОЛУБРИКАНТЫ) //Вестник науки и образования. – 2022. – №. 4-1 (124). – С. 88-92.
29. Xolboeva N., Xaydarova D. PROVISION OF THERAPEUTIC DENTAL CARE AND PREVENTIVE MEASURES DURING PREGNANCY //Science and innovation. – 2022. – Т. 1. – №. D6. – С. 179-181.
30. Raxmonova B., Xaydarova D., Sadikova S. TREATMENT OF FRACTURES OF THE UPPER AND LOWER HEAD IN ELDERLY PATIENTS USING THE IMMOBILIZATION METHOD IMPACT ON PERIODONTAL TISSUE //Science and innovation. – 2023. – Т. 2. – №. D10. – С. 194-198.
31. Farrukh S. ORGANIZATION OF DIGITALIZED MEDICINE AND HEALTH ACADEMY AND ITS SIGNIFICANCE IN MEDICINE //Science and innovation. – 2023. – Т. 2. – №. Special Issue 8. – С. 493-499.
32. Валиева С. Ш. и др. Наша тактика лечения больных с болезнью Меньера //Вестник науки и образования. – 2021. – №. 7-3 (110). – С. 76-81.
33. Xaydarova D., Karimov I. RESULTS OF THE ASSESSMENT OF CHANGES IN MASTICATORY MUSCLE TONE IN RELATION TO THE PATIENT'S BODY POSITION //Science and innovation. – 2023. – Т. 2. – №. D10. – С. 155-157.

