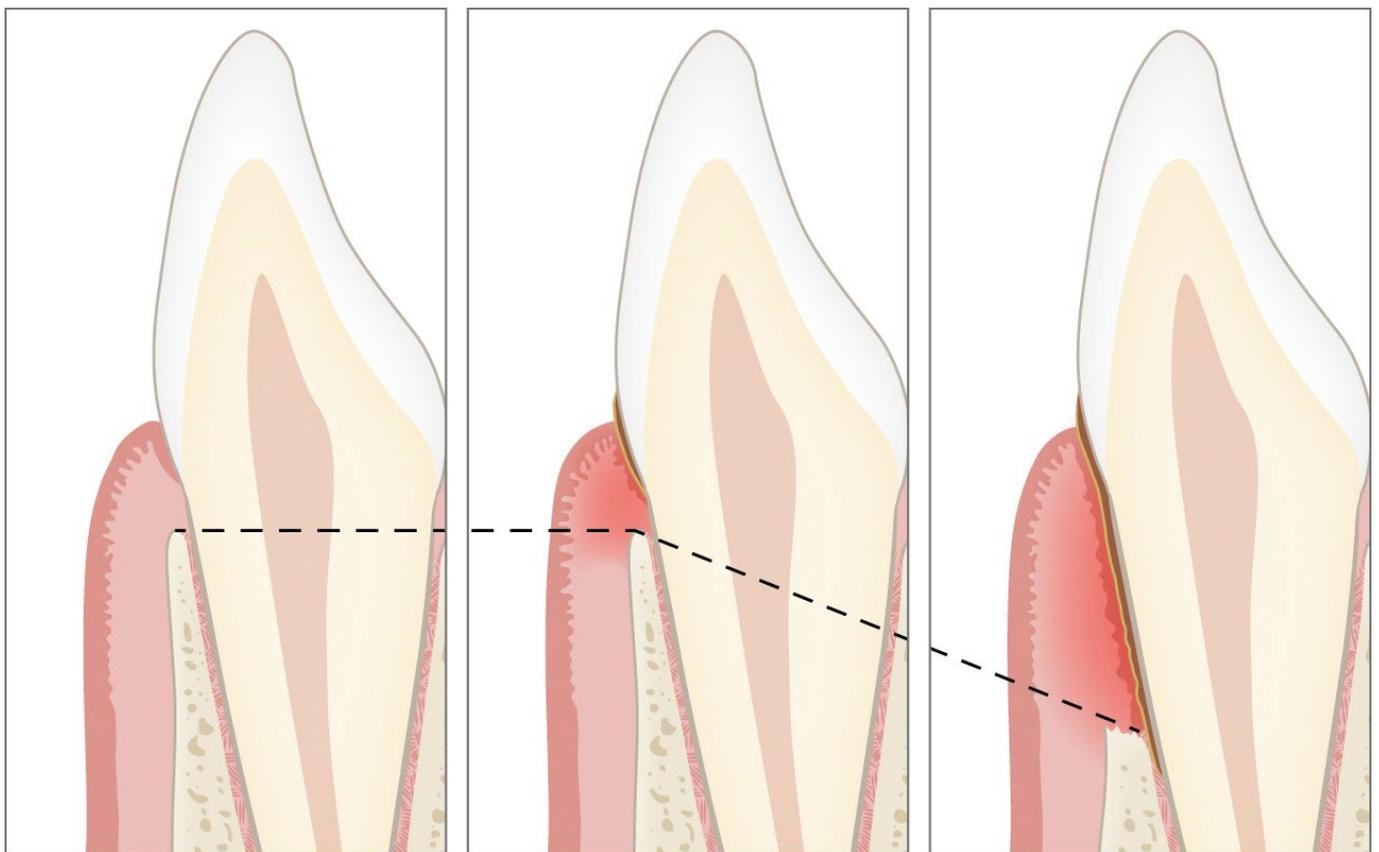


Section 1 – What is periodontitis?



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Legal notice

The website www.periodontal-health.com is an information platform about the causes, consequences, diagnosis, treatment, and prevention of periodontitis. The contents were created in media dissertations for a doctorate at the University of Bern.

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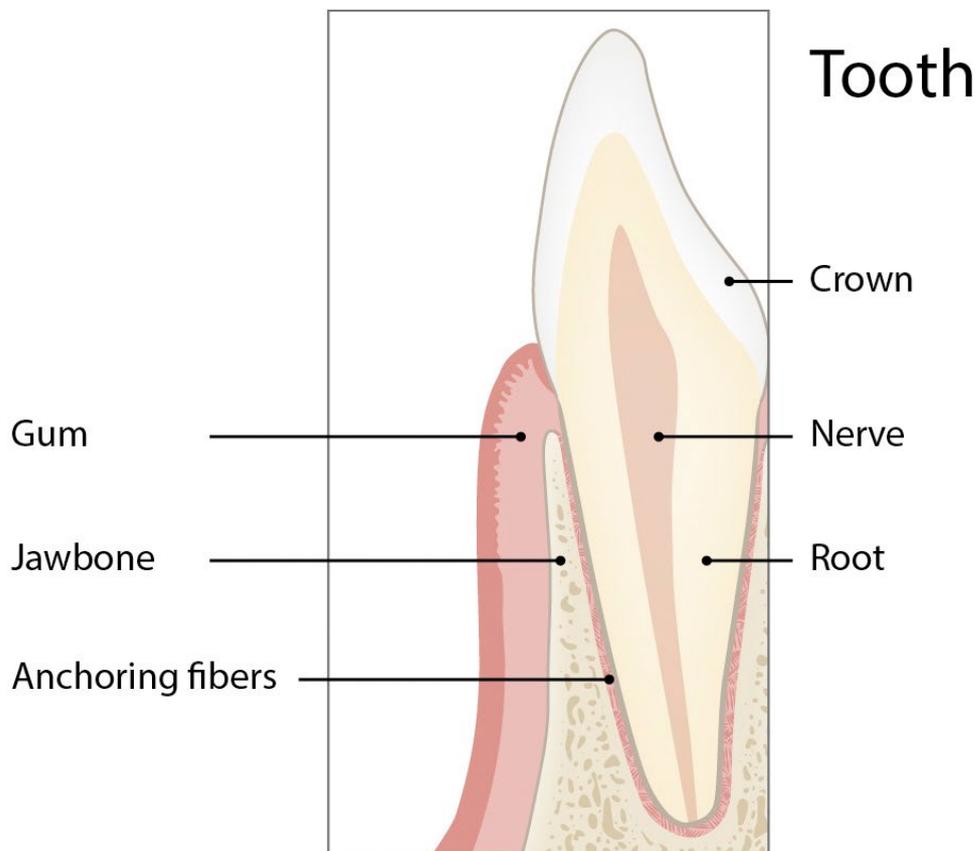
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Section 1 – What is periodontitis?

1.1 How is the tooth held in place in the jawbone?

Every tooth consists of a crown, a root, and a nerve. The tooth is attached to the gum and jawbone by anchoring fibers on the surface of the root.



The crown of the tooth is covered with tooth enamel. Below this is the dentin and below this is the nerve of the tooth (dental pulp). To be precise, the pulp consists of the nerve, blood vessels, and connective tissue. While the enamel has no nerves and is therefore not sensitive, the dentin beneath it has nerve fibers. The surface of the root is thus also sensitive to pain.

The dentin is the major component of the root. The root is also covered by a hard layer called the cementum. The tooth is held in place in the jawbone along the entire surface of the root by

anchoring fibers (periodontal ligaments). These fibers are anchored in the dentin and also in the jawbone.

The root of the tooth is longer than the crown. The eye teeth in the upper jaw in particular usually have very long roots.

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The dental roots

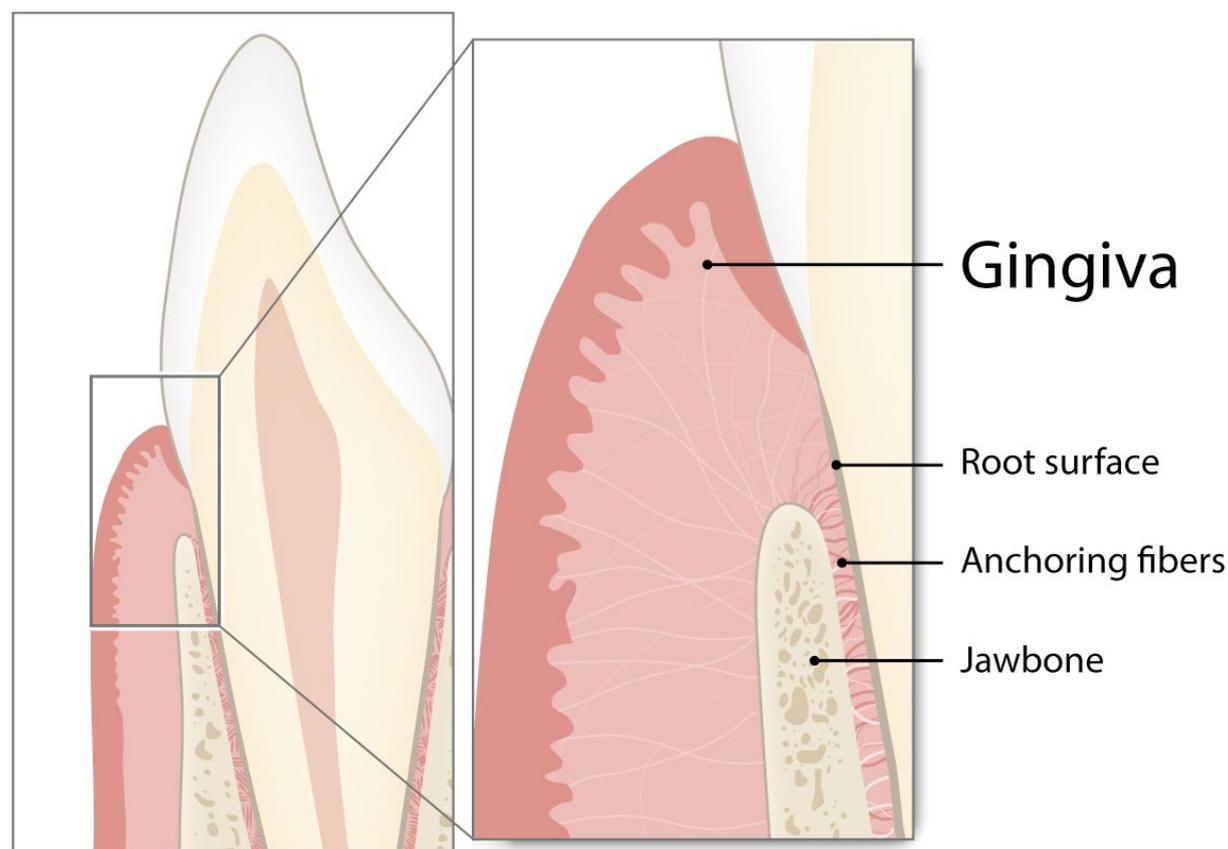
The teeth at the front of the oral cavity, the anterior teeth, have a single root. Teeth in the back of the oral cavity, the posterior teeth or molars, can have one, two, or even three roots. It is important to know that especially the large molars, for example the sixth or seventh teeth (counted from the middle of the face) usually have three roots. Knowing the number of roots per tooth is important for gum disease. When periodontitis has damaged the structures holding the teeth in place, additional niches can form in the places where the roots divide. In these niches, called furcations, deposits of dental plaque and tartar can also form.

Because the furcations cannot be reached in oral hygiene at home and are very difficult to clean even in professional teeth cleaning by the dentist or dental hygienist, the gum disease progresses faster in such places. There is therefore a greater risk of losing teeth where the furcation is affected.

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1.2 What is the gingiva?

The **gingiva**, Latin for gum, is the pink part of the mucous membrane in the mouth that is like a collar around each tooth.

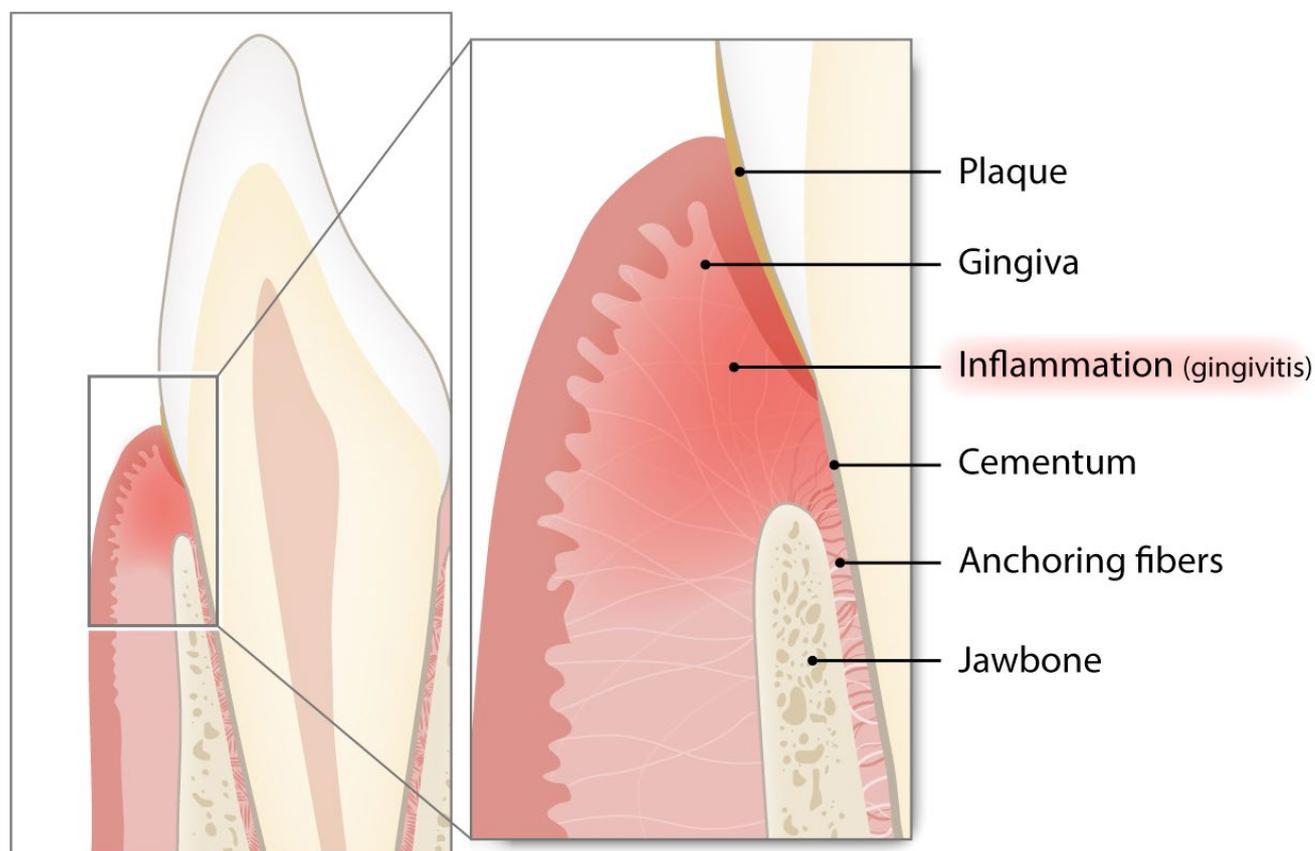


To be precise, the gingiva is the outer edge of the tissue that holds the teeth in the bone. The gingiva consists of a thin outer layer (epithelium) and a somewhat thicker fibrous layer beneath (connective tissue). This fibrous layer contains a few blood vessels in addition to the many fibers of connective tissue. This is why healthy gums are light pink.

Section 1 – What is periodontitis?

1.3 What is gingivitis and how common is it?

After just a few days, the gums (gingiva) react to dental plaque with an inflammation called gingivitis.



The inflammation at the gum line (gingivitis) turns the gums red to dark red, because the blood vessels in the connective tissue there are dilated due to the inflammation.

If optimal oral hygiene at home is practiced, the bacterial plaque is removed regularly and the gums can recover within a few days.

Gingivitis is not a rare inflammation. Every person has several of these areas in their mouth throughout a lifetime. However, they are a sign that these areas were not cleaned properly. Such areas also pose a risk for developing periodontitis.

During pregnancy, there is an increased tendency for gingivitis due to hormonal changes. Pregnant women should pay particular attention to good oral hygiene and see a dentist during their pregnancy.

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The four stages of gingivitis

The development of gingivitis is divided into 4 stages:

Initial lesion

- Classic signs of vasculitis beneath the junctional epithelium

Early lesion

- Accumulation of inflammatory cells directly beneath the junctional epithelium at the areas of the inflammation

Established lesion

- Presence of plasma cells

Advanced lesion

- Clinical evidence of periodontal pockets
- Further loss of collagen fibers and start of alveolar bone loss

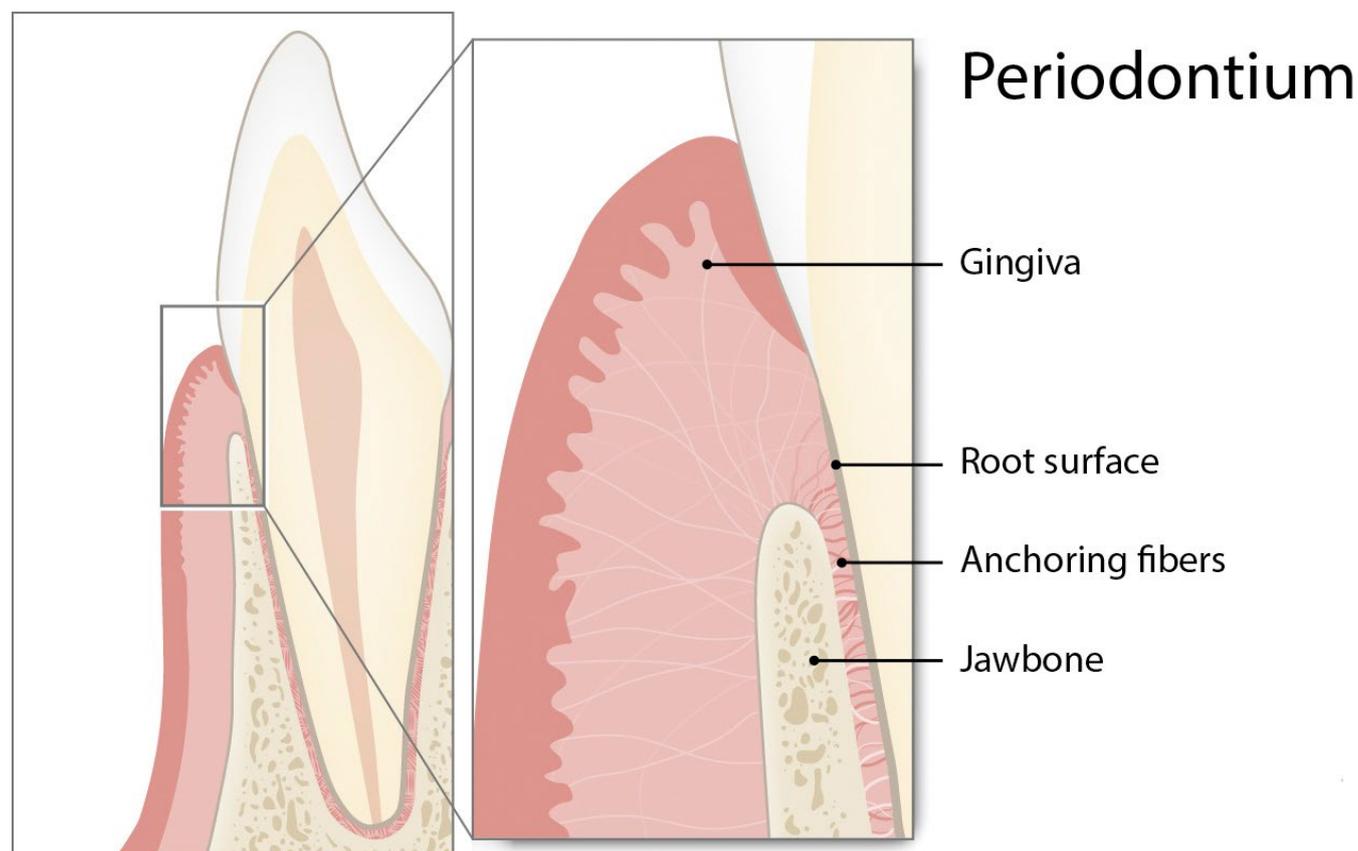
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1.4 What is the periodontium?

The periodontium consists of the tissues that hold the tooth in place in the bone – the gum, the root surface, the anchoring fibers, and the jawbone itself.



The term “periodontium” is used for all components that hold the tooth in the jawbone. It includes the gum (gingiva), the jawbone that holds the tooth, the anchoring fibers, and the anchoring structure on the surface of the root called cementum.

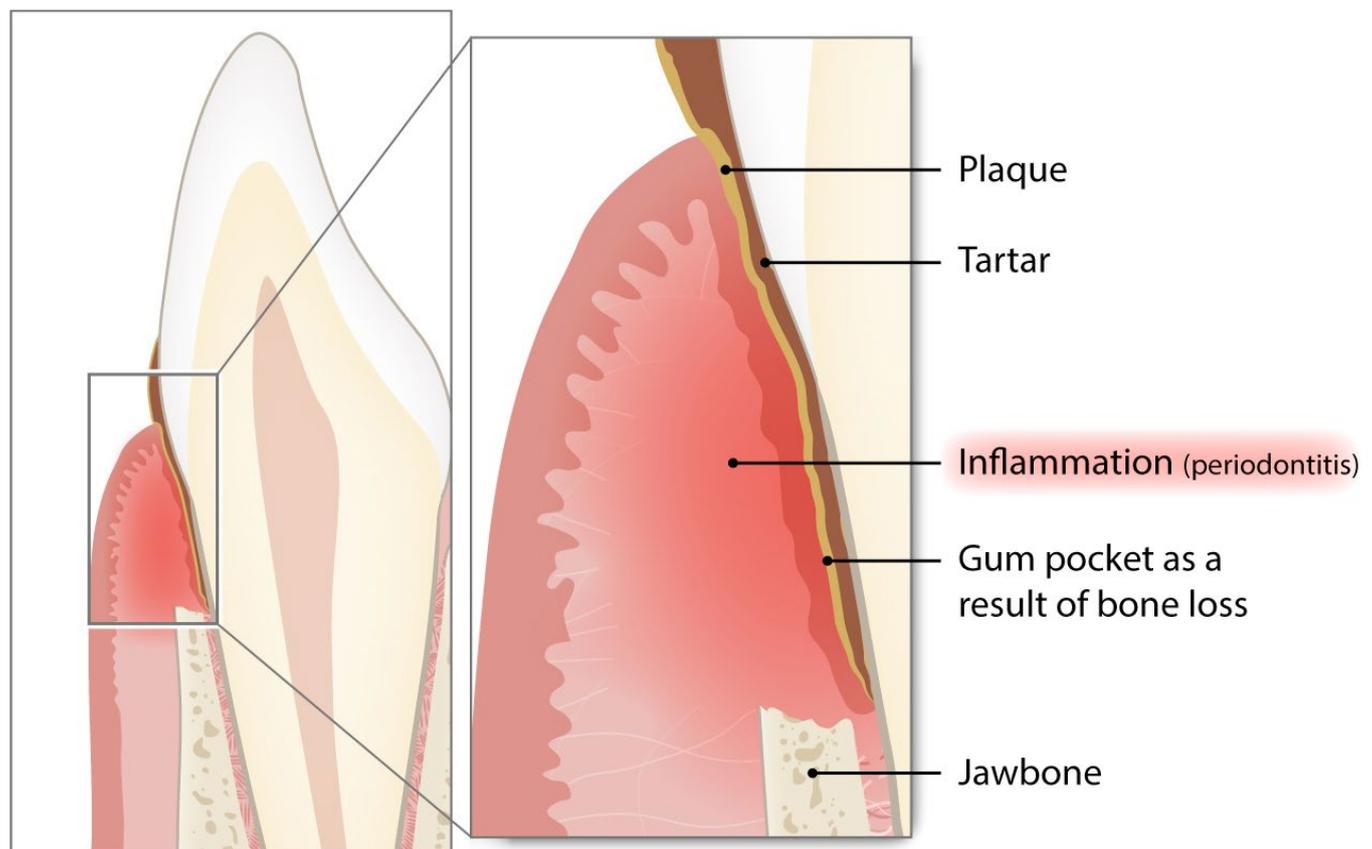
The periodontium ensures that the teeth are held in place in the jawbone. The anchoring fibers give the teeth a high level of functional strength even with high chewing forces.

In a healthy tooth, the periodontium surrounds the entire root. Only when there is inflammatory disease of the anchoring structure (periodontitis) does bone loss occur in the jawbone.

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1.5 What is periodontitis and how common is it?

Parodontitis gehört zu den häufigsten chronischen Krankheiten des Menschen. Es handelt sich um eine entzündliche Erkrankung, die alle Teile der Zahnverankerung betrifft.



As a result of the inflammation of the gum line (gingivitis), there may be loss of the anchoring fibers and the jawbone. In place of the healthy fibers, what is called a gum pocket develops along the tooth. The root surface located there is covered with bacterial film (dental plaque and tartar).

The loss of the anchoring fibers and the jawbone may cause the teeth to become loose. If the disease remains undetected and is not treated, the tissue loss can continue until the teeth cannot be used for chewing and have to be pulled (extracted).

Around 40 percent of people suffer from periodontitis. Among adults, it is estimated that around 70 % of tooth loss is due to periodontitis today.

Section 1 – What is periodontitis?

1.6 Why is it called periodontitis, not periodontosis?

The obsolete term “periodontosis” is still sometimes used for periodontitis. It should no longer be used.



-OSIS



-ITIS

The disease of the structure that holds the teeth in place is called periodontitis today, no longer “periodontosis”. The suffix “-itis” means an inflammation, as in gastritis for inflammation of the stomach. The correct term periodontitis thus correctly describes the disease as an inflammation that is caused by the bacterial plaque on the teeth. The suffix “-osis” indicates a non-inflammatory process, for example as in “osteoporosis”.

The obsolete, but still often incorrectly used term “periodontosis” was previously used because it was known only that this disease led to loss of the anchoring structure, without naming inflammation as the actual cause.

The use of the preferred term “periodontitis” acknowledges the fact that this disease can be managed by reducing the inflammation.



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