



**The Leeds
Teaching Hospitals**
NHS Trust

Gum disease

Information for patients



Leeds Dental
Institute



UNIVERSITY OF LEEDS

What is gum disease?

Gum disease or periodontal disease is caused by bacteria (in dental plaque) that build up on the teeth and at the gum line. If plaque is not regularly removed by brushing, the gums become inflamed. This damages the gums.

At first, this inflammation just affects the edges of the gums. This is called gingivitis. The gums become red, swollen and may bleed when you brush your teeth. Gingivitis can be prevented and treated by thorough oral hygiene.

If plaque is not removed properly by brushing, it becomes hardened - this is called calculus (tartar). Calculus cannot be removed by brushing. This needs to be done by a dentist or dental hygienist/therapist.

Periodontitis

If gingivitis is not treated and the inflammation progresses, it affects the way the gums attach to the teeth. The gum edge is no longer attached properly to the tooth. This is called periodontitis. The space between the gum and the tooth is called a pocket.

As the disease progresses further, the bone support of the teeth is damaged. If not treated, the teeth will eventually become loose and could either fall out or need to be extracted. Bone loss cannot be reversed, but treatment aims to stop it from getting worse.

Periodontitis is a chronic disease, which means it is a long-term condition.



What causes gum disease (periodontitis)?

Periodontitis is common: around 10% of the world's adult population have severe gum disease. However, the main cause of gum disease is poor oral hygiene. This means that gum disease can often be prevented. Smoking and some medical conditions increase the risk of gum disease.

Smoking

Smoking significantly increases your risk of developing gum disease. Smoking can promote the growth of more harmful bacteria which play a role in gum disease. Smoking affects the way the body responds to inflammation and reduces the gums' ability to heal.

As a result of smoking:

- The risk of gum disease is increased
- Gum disease is more likely to get worse and at a faster rate
- Treatment for gum disease is less likely to work
- Gum disease is more likely to come back after treatment
- Across the country, there are services that can help you if you decide to quit smoking. Contact your doctor or dentist, or look online at <https://www.nhs.uk/smokefree>

Diabetes

Gum disease has strong links to poorly controlled diabetes. This can increase the rate of progression of gum disease and make treatment more difficult. Also, active gum disease can make it more difficult to control diabetes.

It is a good idea to talk to your dentist or doctor about any concerns that you may have about diabetes and gum disease.

Medications

Some medications may cause your gums to become overgrown. These include some drugs for epilepsy, angina, high blood pressure and drugs that suppress the immune system. This overgrowth can usually be avoided by excellent oral hygiene and, if necessary, altering the medication. Occasionally, we may suggest surgery to reduce the overgrown gums.

Genetics

Gum disease can run in the family, especially more rapidly progressing (aggressive) gum disease. Therefore, you may also be at an increased risk if you have family members who have had gum disease, particularly at a young age.

Some rare genetic conditions increase the risk of gum disease. These include conditions affecting collagen such as Ehlers Danlos Syndrome, and conditions affecting immune system cells such as Papillon-Lefevre syndrome.

Your doctor or dentist will be able to tell you if this applies to you.

Gum disease and pregnancy

Pregnancy hormones can aggravate pre-existing gum disease. The gums may look red, bleed easily or be more swollen. This starts in the first trimester and is at its worst in the final trimester. It usually resolves within a short time of giving birth and can often be controlled by oral hygiene measures.

How is gum disease diagnosed?

Gum disease often does not cause pain and you can be unaware of active disease for many years. You may notice the following:

- Gums that bleed easily, such as with brushing or bleeding (less so in smokers)
- Red, swollen gums
- Gums that feel tender when touched
- Bad breath
- Pus between your teeth and gums
- Sensitive teeth
- Loose teeth
- Gum recession (the teeth may appear longer)
- New spaces appearing between your teeth
- Teeth moving position in the mouth

A reliable diagnosis can only be made by a dentist, dental hygienist or dental therapist. Your dentist will probe around the gums to check for bleeding and pockets. They may take X-ray pictures (radiographs) to look for bone loss around the teeth.

Where will my treatment be carried out?

Most gum disease does not need specialist treatment in a dental hospital. If you are referred to the hospital regarding your gum disease, we will carry out a full assessment and provide a tailored treatment plan.

If you require treatment within the hospital, we will arrange follow-up appointments. Once treatment has been completed you will be discharged back to your dentist for supportive maintenance care on a regular basis.

Cleaning your teeth properly

The most important way to prevent and treat gum disease is the daily removal of plaque yourself at home. Your dentist, hygienist or dental therapist will help you know how to thoroughly remove all plaque. This may include using toothbrushes, floss, interdental brushes and single tufted brushes.

Talk to your dental team about areas that you are struggling with so they can help you improve the results of your treatment.

If you have not been cleaning your teeth properly and the gums are inflamed, when you do clean them they may bleed. This is normal and is because of the inflammation- not because the cleaning is damaging them. If you persist with proper cleaning, the bleeding will reduce over time.

Toothbrushing

Brushing is the most important way to clean your teeth.

Brush your teeth 2 to 3 times a day: ideally first thing in the morning and just before bed. Use a fluoride toothpaste. Where possible, allow at least 30 minutes after eating before brushing your teeth.

Brush your teeth for at least two minutes: it takes this long to get the brush into all the areas around the teeth and clean them properly. If you have existing gum disease it may take longer: the important thing is making sure you are brushing effectively. Use your watch, a clock or phone timer to be sure you are brushing for long enough.

Generally, you should use a medium-headed brush with medium bristles. Rechargeable powered brushes with a small round head remove plaque more effectively than a manual toothbrush. However, both can be effective if used properly. Replace your toothbrush every 3 months or sooner if bristles are worn and splayed.

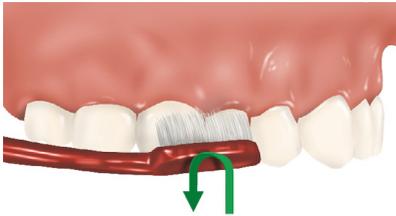
Manual toothbrushing technique



The brush bristles should be angled towards the gum to allow cleaning below the gum line



A small backward and forwards scrubbing motion should be used with a manual toothbrush. You should aim to brush 2-3 teeth at a time for several seconds

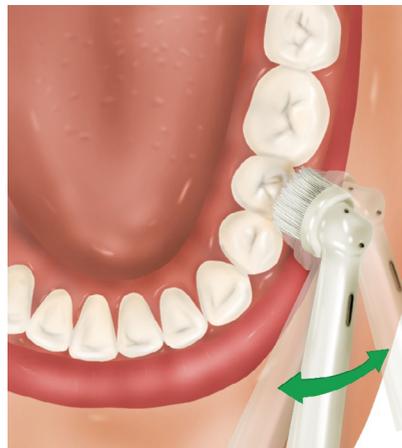


A roll or flick away from the gum can help to remove plaque from below the gum line



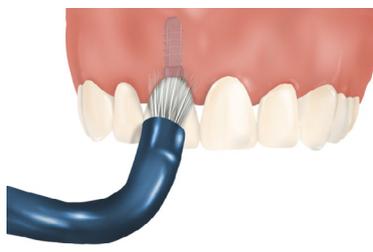
The brush bristles should be angled towards the gum to allow cleaning below the gum line.

With an electric toothbrush you should concentrate on brushing one tooth at a time rotating it towards the front and back of the tooth to clean all surfaces.





Every 3 months or when the bristles are splayed the toothbrush should be replaced. Some brands have dye indicators to help indicate when a brush head should be replaced.



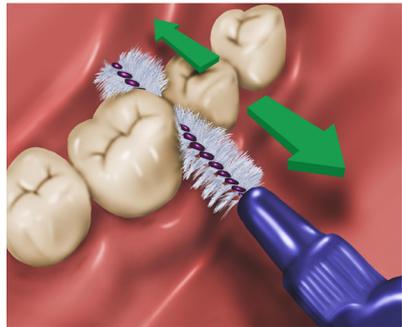
We may advise use of a manual or powered single tufted brush to clean more challenging areas such as recession or around dental implants

Interdental cleaning

Clean between your teeth at least once a day. Cleaning in-between your teeth (interdentally) is important because this area collects food debris and plaque which you cannot remove with your toothbrush.

Cleaning between the teeth is often tricky. There are several methods available for interdental cleaning including brushes, floss and water jet machines, but not all will be right for you. Your dental team will help you choose the right techniques for you.

Interdental brushes are usually the most effective. Choose the largest size that fits snugly without getting stuck. You will need a range of sizes to clean the whole mouth effectively as not all spaces are the same size. The brushes should be changed when the bristles become worn or wires become distorted (usually every few days). You may need to use floss where the gaps between teeth are too small for interdental brushes.



Interdental brushes should be placed between the teeth. A forwards – backwards movement and rotating movement should be performed to clean effectively



Interdental brushes come in a range of handles and sizes. The brushes should fit snugly between the teeth without getting stuck



Flossing is recommended for very narrow spaces between your teeth.

- Wrap a length of floss around your middle fingers.
- Use your thumbs and index fingers to guide floss between the teeth.
- Gently pull the floss towards the gum, down the side of each tooth and just beneath the gum-line.

Mouthrinse

Mouthrinse (or mouthwash) can be used to help remove bacteria, provide fluoride, and freshen the mouth. They are not a substitute for toothbrushing or cleaning between the teeth as they do not physically remove plaque. Mouthrinses that contain chlorhexidine can help prevent gum disease; however, long-term use can result in altered taste or staining of your teeth that will require professional cleaning.

It is best to use mouthrinse a separate time of day to brushing (at least an hour afterwards).

Disclosing tablets

Treating gum disease depends on you being able to keep all the areas of your mouth clean. Disclosing tablets contain a special dye to stain the plaque. This makes it easier to see so you can check that you have removed all of the plaque.

What does treatment involve?

Treatment aims to reduce inflammation by removing bacteria from around your teeth. Successful treatment will reduce bleeding and the depth of pockets but treatment is not generally able to reverse bone loss. In some cases, the aim is to stop gum disease getting worse, or in others, it is only to slow down progression.

Where teeth have lost a lot of bone or are very loose, we may suggest removing these. This can make it easier to clean around the adjacent teeth, and improve their prognosis. Keeping hopeless teeth may result in infection and harbour bacteria to infect other teeth around the mouth.

If lost teeth require replacement, your dentist will be able to discuss appropriate options. These may include a denture, bridge or dental implants. Implants are only recommended if the gum disease is well controlled.

Plaque score and oral hygiene assessment

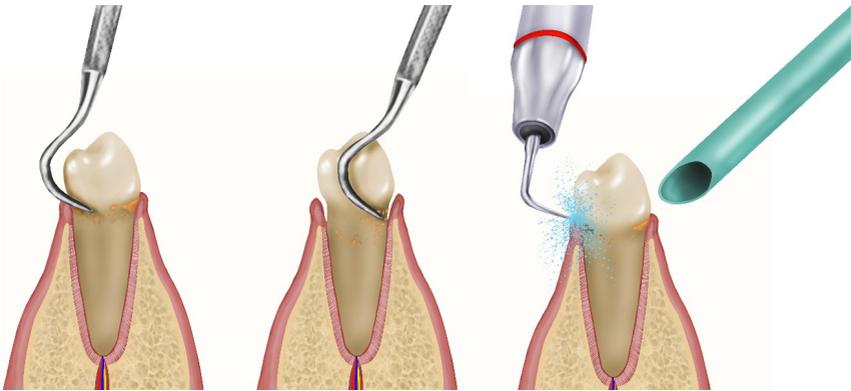
Treatment will only be successful if you clean your teeth effectively. We will check your oral hygiene using a plaque score. We will use a dye to stain the plaque around your teeth and use this to calculate a percentage of tooth surfaces free from plaque. You need to achieve at least 70% of surfaces free from plaque for treatment to be effective.

Treatment will not work as well if you are not keeping your teeth clean enough. We will therefore not proceed to the next stage of treatment unless we are confident that treatment has the best chance of succeeding. If your oral hygiene is persistently poor then we may not offer you further treatment.

Before starting active treatment, we will do detailed measurements of the gums. This will include whether there is bleeding and the depth of pockets around all of your teeth. We will then re-do these measurements after treatment so we can tell if there has been any improvement.

Non-surgical periodontal treatment

The dental team will remove hardened plaque (calculus) from your teeth by scaling, or 'deep cleaning' above and below the gum line. This is called non-surgical periodontal treatment. Local anaesthetic is usually used to freeze (numb) the gums and make treatment as comfortable as possible. Scaling may be done in one long appointment or over several appointments. This depends on various things including the number of pockets, depth of pockets, and how much calculus is present.



We may use hand instruments or powered instruments that spray water and vibrate in order to clean above and below the gum line.

What can you expect after treatment?

- As your gums become healthier, swelling will reduce and your gums may shrink. You might notice new spaces between the teeth or the teeth may appear longer due to gum recession.
- As your gums shrink, your teeth may become sensitive to hot, cold or sweet things. This often gets better after a few weeks, but you might need to use special sensitive toothpaste.

Next stages of treatment

Sometimes gum disease does not respond to the initial treatment, and further rounds of treatment are required.

In some cases, we may recommend a 7-day course of antibiotics in conjunction with your deep cleaning. This is not appropriate in all cases- we will be able to discuss whether it may work for you.

In certain situations where only a few deep pockets persist despite treatment, we may consider surgical periodontal treatment. Please see our other leaflet Surgical Periodontal Treatment for further information.

What happens when my treatment is completed?

You will be discharged back to your dentist following completion of treatment. This may either be because:

- There are no remaining deep pockets
- It is unlikely that any further improvement will be achieved. This may be due to the severity of the gum disease or if your cleaning is not good enough.

If there are still pockets, regular lifelong supportive treatment aims to reduce the rate of progression of the disease going forwards.

Even if all pockets resolve after treatment, it is important that you see your dentist or dental hygienist/therapist regularly for ongoing monitoring and support. Gum disease can relapse, and regular attendance will allow this to be identified quickly.

Other resources:

<https://www.nhs.uk/live-well/healthy-body/how-to-keep-your-teeth-clean/>

<https://www.dentalhealth.org/healthy-gums-and-healthy-body>

<https://www.bsperio.org.uk/patients/index.html>



What did you think of your care?

Scan the QR code or visit bit.ly/nhsleedsfft

Your views matter



© Leeds Teaching Hospitals NHS Trust • 3rd edition (Ver 1)
Developed by: Dr L Morrow, Consultant in Restorative Dentistry
Updated by: Dr James Chesterman, Consultant in Restorative Dentistry •
Dr Hannah Beddis, Consultant in Restorative Dentistry •
Dr David Gray Str in Restorative Dentistry •
Produced by: Medical Illustration Services • MID code: 20230929_014/EP

LN004336
Publication date
10/2023
Review date
10/2026