



## Disease information

The following information is provided to help you understand the discovered concerns or issues during your dental assessment and give you a base of understanding.

The information provided should be supplemented by your own research to help you gain a deeper understanding of any issues and help you understand the treatments required. Your dentist can help answer any further questions you may have.

### Caries (decay)

The following is important for you as you have decay identified in 4 teeth

What is Caries (decay)?

Free sugars are the essential dietary factor in the development of dental caries. Dental caries develops when bacteria in the mouth metabolize sugars to produce acid that demineralizes the hard tissues of the teeth (enamel and dentine). Severe dental caries affects general health and often causes pain and infection, which may result in tooth extraction. (World health organisation)  
(<https://www.who.int/news-room/fact-sheets/detail/sugars-and-dental-caries>)

What causes tooth decay (Caries)?

Your mouth is full of bacteria that form a film over the teeth called dental plaque. When you consume food and drink high in carbohydrates, particularly sugary foods and drinks, the bacteria in plaque turn the carbohydrates into energy they need, producing acid at the same time.

The acid can break down the surface of your tooth, causing holes known as cavities. Once cavities have formed in the enamel, the plaque and bacteria can reach the dentine, the softer bone-like material underneath the enamel.

As the dentine is softer than the enamel, the process of tooth decay speeds up. Without treatment, bacteria will enter the pulp, the soft centre of the tooth that contains nerves and blood vessels.

At this stage, your nerves will be exposed to bacteria, usually making your tooth painful. The bacteria can cause a dental abscess in the pulp and the infection could spread into the bone, causing another type of [abscess](#).

(NHS England)

Early-stage tooth decay, which is before a hole (or cavity) has formed in the tooth, can be reversed by:

- reducing how much and how frequently you have sugary foods and drinks
- brushing your teeth at least twice a day with fluoride toothpaste

Your dentist may apply Fluoride gel or fluoride paste to the affected tooth.

Fluoride helps to protect teeth by strengthening the enamel, making teeth more resistant to the acids from plaque that can cause tooth decay

(NHS England)

(<https://www.nhs.uk/conditions/tooth-decay/>)

Sucrose (sugar) consumed only twice a day changes the composition of the biofilm, increasing the risk for developing caries even if the person uses fluoride toothpaste (Effect of frequency of sucrose exposure on dental biofilm composition and enamel demineralization in the presence of fluoride. Caries Res. 2007)

(<https://pubmed.ncbi.nlm.nih.gov/17167254/>)

Remineralization therapy involves behavioural changes (diet and habits) and, typically by using fluoride-containing products, can help stop the progression of lesions or reverse it in early stages.

(Study done by Pitts et al 2017)

The above is particularly important for you to note as you have early decay identified on 2 teeth.

Suggestions for you include fluoride usage:

Up to 5000ppm toothpaste twice daily, Spit not do NOT rinse.

Dietary sheet for analysis. This can help identify sources of sugar not obvious to you.

(studies by Steele et al 2018)

(recommendations by NHS England)

The presence of caries (decay) can mean your dentist wants to review you more often than once or twice a year (depending on the severity and spread of tooth decay). This is to help stabilise current tooth decay, prevent future decay, and catch new decay early to reduce need for complex treatments

(National institute for clinical Excellence)

(Reduce recall intervals based on risk assessment NICE guidelines)

## Periodontal (Gum) disease

The following is important for you as your assessment has identified periodontal risk factors and bone-loss.

What is gum disease?

Most adults in the UK have gum disease to some degree, and most people experience it at least once. It's much less common in children.

If you have gum disease, your gums may bleed when you brush your teeth and you may have bad breath. This early stage of gum disease is known as gingivitis.

If gingivitis is not treated, a condition called periodontitis can develop. This affects the tissues that support teeth and hold them in place.

If periodontitis is not treated, the bone in your jaw may be damaged and small spaces can open up between the gum and teeth.

Your teeth can become loose and may eventually fall out.

(NHS England)

(<https://www.nhs.uk/conditions/gum-disease/>)

How do you prevent and what is the treatment?

Mild cases of gum disease can usually be treated by maintaining a good level of oral hygiene.

This includes brushing your teeth at least twice a day and flossing regularly.

You should also make sure you go for regular dental check-ups.

In most cases, your dentist or dental hygienist will be able to give your teeth a thorough clean and remove any hardened plaque (tartar).

They'll also be able to show you how to clean your teeth effectively to help prevent plaque building up in the future.

If you have severe gum disease, you'll usually need to have further medical and dental treatment.

In some cases, surgery may need to be carried out. This will usually be performed by a specialist in gum problems (periodontics).

(NHS England)

(<https://www.nhs.uk/conditions/gum-disease/>)

What are the common complications if gum disease is left unchecked?

If you have untreated gum disease that develops into periodontitis, it can lead to further complications.

These can include:

- painful collections of pus (gum abscesses)
- receding gums
- loose teeth
- loss of teeth

Shorter recall intervals between dental check-up appointments are suggested for patients with poor plaque control

(National institute for clinical Excellence)

(Reduce recall intervals based on risk assessment NICE guidelines)

Gum disease has been linked to a variety of other health problems, including: heart disease and heart attacks, diabetes and its control, stroke, and rheumatoid arthritis

(NHS England)

(<https://www.nhs.uk/live-well/healthy-body/health-risks-of-gum-disease/>)

Recent research has shown some links between Alzheimer's disease (this requires further studies for a better understanding)

See Below for further information about gum disease and its links to other health conditions.

The role of periodontitis as a risk factor for multiple systemic diseases is widely accepted and there is growing evidence of an association between periodontitis and sporadic late onset Alzheimer's disease (SLOAD).

(British Dental Journal) (<https://www.nature.com/articles/bdjteam201662>)

Researchers assessed 59 people with mild to moderate Alzheimer's disease for memory ability, levels of inflammation and dental health. The majority of participants were followed up at six months when all assessments were repeated.

People who had gum disease declined in memory ability six times faster than those who did not over the six-month follow-up period

([www.alzheimers.org.uk](http://www.alzheimers.org.uk))

How is gum disease linked to heart problems and diabetes?

(British Heart Foundation)

(<https://www.bhf.org.uk/informationsupport/heart-matters-magazine/medical/oral-health>)

Suggestions:

Brush twice daily with preferably an electric toothbrush.

Clean between your teeth daily

Tighter gaps can be flossed, larger gaps should be cleaned with an appropriately sized interdental brush. (your dentist/hygienist can suggest sizes)

Smoking cessation is advised.

### Smoking

This is important for you as you have disclosed you are a smoker.

Smoking has been linked to oral cancer, and gum disease.

Smokers **are 7 to 10 times more likely to develop mouth cancer than** non-smokers, and in long-term regular users of smokeless tobacco this risk is more than 11 times that of non-users.

(<https://ukhsa.blog.gov.uk/2017/11/08/mouth-cancer-action-month-reducing-the-risk/>)

Recent studies have shown that tobacco use may be one of the most significant risk factors in the development and progression of periodontal disease. (NHS England)  
<https://www.qvh.nhs.uk/wp-content/uploads/2017/02/The-effect-that-smoking-has-on-your-oral-health-Rvw-Feb-2020.pdf>

Smoking cessation help

(<https://www.nhs.uk/better-health/quit-smoking/>)

Diabetes:

You have been identified as a Diabetic

See Below on the link between diabetes and

- tooth decay
- Gum disease

<https://www.diabetes.org.uk/guide-to-diabetes/complications/gum-disease>