

# Dental Caries (Tooth Decay)



## What is dental caries (tooth decay)?

Dental caries (commonly known as tooth decay) is the breakdown of teeth caused by plaque bacteria and dietary sugar. Plaque bacteria live on the tooth surfaces and break down dietary sugar into acid – it is the acid that harms the tooth and causes cavities (holes). If left untreated, tooth decay can extend deep into the tooth and eventually cause death of the tooth nerve.

In the mouth, early tooth decay can look like white or brown spots on the teeth. When advanced, tooth decay can cause cavities (holes) in teeth. When cavities become very large, complete breakdown of the tooth can occur.



Moderate caries in lower incisor teeth



Advanced caries in a molar tooth

## What are the symptoms of dental caries (tooth decay)?

Often tooth decay has no symptoms which is why it is important you have your teeth checked regularly. However, sometimes the following symptoms are present:

- Sensitivity to hot, cold and sweet foods and drinks
- Fracture / break down of tooth tissue

## How is dental caries (tooth decay) diagnosed?

**Examination:** The severity and location of tooth decay is diagnosed by conducting a thorough examination of your teeth.

**Diet diary:** It is important to identify whether any sugars in the diet are causing tooth decay.

**X-rays:** X-rays are used to identify the extent of decay lesions and to assess whether there is any hidden decay.



X-ray showing advanced caries in a molar tooth

## How is caries (tooth decay) treated?

### Decay risk

Your dentist will identify whether you are at a high or low risk of developing tooth decay. The most important part of treatment is reducing the risk factors which cause caries:

- **Oral hygiene** – improving oral hygiene reduces plaque bacteria in the mouth. Aim to brush twice a day for 2 minutes with fluoride toothpaste. Clean between your teeth using floss or interdental brushes.
- **Fluoride** – using a fluoride toothpaste (minimum 1350ppm fluoride) to brush with twice a day can help strengthen teeth.
- **Dietary sugars** – reduce the amount and frequency of eating sugary snacks/drinks.

### Early decay

It is possible to prevent early tooth decay progressing by doing the following:

- Reducing the risk of decay by improving oral hygiene, brushing with fluoride toothpaste and reducing dietary sugars
- Painting high fluoride varnish on the area of tooth affected by tooth decay
- Applying a thin layer of resin (known as resin infiltration) over the area affected by tooth decay

### Advanced decay

When tooth decay becomes advanced, cavities (holes) form:

- **Fillings:** If a cavity is present, a filling is necessary. Decay is removed and the cavity is cleaned and shaped. A filling material is placed to replace the lost tooth tissue. This is often done using local anaesthetic.
- **Deep decay:** If decay has spread to the nerve of a tooth, root canal treatment or tooth extraction is recommended.
- **Extensive decay:** Sometimes decay is so extensive that the tooth cannot be built up with a restoration. In this case, tooth extraction is required.



Silver 'amalgam' fillings



White composite fillings

## What are the benefits of caries (tooth decay) treatment?

- **Prevention:** Treating tooth decay early prevents the risk of cavitation (holes), irreversible nerve damage and tooth loss.
- **Function:** Restoring cavities with fillings restores tooth appearance and function

## What are the risks of caries treatment?

- **Sensitivity:** It is common to experience sensitivity after a filling. This often resolves after a few weeks. If symptoms persist you should contact the clinician who did the filling.
- **Dental nerve:** Preparing a tooth for a filling can be traumatic for the dental nerve and it sometimes becomes irreversibly damaged. If so, root canal treatment or extraction is necessary.
- **Filling replacement:** Fillings may need replacement if they fracture, discolour or new decay forms around them.

## What happens after treatment is finished?

To check that you and your dental professional are happy with the outcome of your treatment, you will be reviewed after your treatment is finished.

When all of your dental treatment is complete, you will be discharged from the dental school. We advise that you find a dentist outside the dental school to continue to look after your teeth and restorations.

## Types of questions you may want to ask

- Why am I at risk of tooth decay?
- Which of my teeth are affected by tooth decay?
- What can I do to improve my oral hygiene and diet?
- How many appointments will I need for treatment?

## And finally...

Maintaining good oral hygiene is crucial for healthy teeth and gums, and will help reduce the risk of decay and gum disease. Brush your teeth twice daily for 2 minutes with fluoride toothpaste and clean between your teeth with floss or interdental brushes.

Smoking and alcohol increase the risk of oral disease. If you want to quit smoking or reduce your alcohol intake, please talk to the clinician you see for further advice.

It is important to attend dental check-ups regularly, as this will help your dentist to identify any dental disease early

Please ask at reception  
if you require this  
information in a different  
language or format.

**Contact us:**

Monday to Friday,  
8:30 am - 4:30pm  
T: 0117 374 6647

Emergency out of hours  
NHS 111