

By the end of this lesson the children will be able to:

- Recognise the main areas where plaque can accumulate in the mouth
- Understand the importance of toothbrushing in relation to preventing gum disease.

Background information**Plaque.....what is it?**

Plaque is a soft film of bacteria and particles of food which constantly grow on the tooth surfaces, stagnating particularly around the gum margins and hard to reach areas of the mouth.

20 minutes after brushing plaque begins its process of multiplying which is why there is a need to brush teeth at least twice a day to prevent it from building up too much.

In the “Dental Decay” section we discussed the role of plaque and how it converts dietary sugars to a plaque acid increasing the risk of tooth decay. In this section we will explain how it factors in the most common disease in the world....gum disease.

An increasing number of the general population believe bleeding gums is normal when in fact this is one of the first signs of gum disease.

Plaque produce toxins that irritate the gums (gingivae) if left on them for a few days making them become red and swollen. When these gums are then brushed they bleed. Many ignore this or think they have damaged their gums with the toothbrush and tend to avoid brushing that area. However, by not brushing properly you will be increasing the amount of plaque which accumulates thus enhancing the problem and it becomes a vicious circle.

If your gums bleed it's your body's way of telling you there's a problem! This early gum disease is also known as gingivitis, “gingiva” meaning gum, “itis” meaning inflammation.

Plaque has a negative effect on gums therefore, effective toothbrushing is paramount in preventing gum disease.

If gum disease is left untreated it progresses further down under the gum margin to attack the periodontal fibres, which act like shock absorbers and attach the tooth to the jawbone, this is known as ‘periodontitis’. It is at this stage in the condition that an otherwise healthy tooth can over a period of time become loose as a result of bone loss and eventually it will fall out. It's worth knowing most adults lose their teeth through gum disease and not tooth decay.

Many adults experience a build up of tartar or calculus behind their lower incisors. This area is often missed when brushing. If plaque is left to accumulate in this area over a period of time calcium salts from the saliva are taken up by the plaque and result in hard deposits forming both on the gum line and just below it. These deposits of tartar can only be removed by a Dentist or Dental Hygienist using special scaling instruments.

Considering plaque is the common factor in both gum disease and tooth decay it is obvious twice daily toothbrushing is essential to achieve optimum oral health.

Effective toothbrushing techniques ensure thorough plaque removal. Children need to be taught a routine when brushing to guarantee all tooth surfaces are cleaned and not just the ones they can see when they smile! Take a look at the “Top tips for toothbrushing” download in the 7-11 age category for the correct technique to use.

In summary the main messages are:

- Encourage the children to have a system when brushing their teeth. They should begin in the same area every time they brush, and methodically work their way around the mouth so as not to miss any areas.
- Inside surfaces of the teeth are commonly missed. Highlight the need to use a small headed toothbrush so that it can fit into those hard to reach areas.
- Explain that the molar teeth are the ‘hard working teeth’ and without them crunching and grinding certain types of foods would be impossible so they need to pay particular attention to those teeth.

Activity/Experiment

Identifying the areas of the mouth where plaque accumulates

Aim

To increase awareness of the accumulation of plaque on teeth.
To understand how to use disclosing tablets correctly.

Objective

By using the disclosing tablets to identify plaque the children will be able to recognise the key areas where plaque can accumulate on the teeth.

Resources required: -

- Disclosing tablets
- Mirrors
- Toothpaste
- Toothbrushes
- Instructions for using the disclosing tablets
- Worksheets for recording the areas where plaque is found on the teeth
- Written consent from parents for their child to take part

Method

- 1) Ask the children to get into pairs, one child uses the disclosing tablet, whilst the other child records the amount of plaque found on their partners teeth.
- 2) Alternatively ask for volunteers who have returned consent to come to the front of the class to be involved in an experiment.
- 3) After following the instructions on the packet on how to use the disclosing tablet ask them to come back to the front to show the rest of the class any plaque coloured on their teeth.
- 4) A group discussion could now take place with suggestions on why certain areas are coloured and others not for example the molars are further back in the mouth resulting in them being more difficult to clean than the front teeth.
- 5) The children now need to brush their teeth until all of the colouring has been removed.

Please note any child who has an allergy to colourings should not take part in this activity.

Name

Worksheet

Identifying the areas of the mouth where plaque accumulates.

Colour in the areas where the disclosing tablet has stained the plaque.

