

Dental plaque: Causes, effects, and prevention strategies.

Wenjun Miao*

Department of Periodontics, Nanjing Tech University, China

Introduction

Dental plaque is a soft, sticky film that forms on the surface of teeth and is made up of bacteria, food debris, and saliva. It is the main cause of tooth decay, gum disease, and other oral health problems. Understanding what dental plaque is and how it forms is important for maintaining good oral hygiene and preventing oral health problems. Plaque begins to form on teeth just minutes after eating and drinking. If not removed, the bacteria in plaque produce acids that can erode tooth enamel and lead to cavities. Plaque can also irritate the gums and cause inflammation, which can eventually lead to gum disease [1].

The formation of plaque can be influenced by a number of factors, including diet, oral hygiene habits, and genetics. A diet high in sugar and carbohydrates can promote plaque formation, as can inadequate brushing and flossing. Certain medical conditions and medications can also increase the risk of plaque buildup. Preventing plaque buildup begins with good oral hygiene habits. This includes brushing your teeth at least twice a day with a fluoride toothpaste, flossing at least once a day, and using an antiseptic mouthwash. It is also important to visit the dentist regularly for checkups and professional cleanings, as the dentist can remove plaque and tartar that cannot be removed by brushing and flossing alone [2].

In addition to maintaining good oral hygiene habits, there are other steps you can take to prevent plaque buildup. These include avoiding sugary and starchy foods and drinks, drinking plenty of water, and chewing sugar-free gum after meals to stimulate saliva production, which can help neutralize acid in the mouth.

If left untreated, dental plaque can lead to serious oral health problems, including tooth decay, gum disease, and tooth loss. It can also contribute to other health problems, such as heart disease and diabetes. By understanding what dental plaque is and how it forms, and by taking steps to prevent its buildup, you can maintain good oral health and overall health [3].

Dental plaque is a common problem that can have serious consequences if left untreated. It is caused by bacteria, food debris, and saliva, and can lead to tooth decay, gum disease,

and other oral health problems. Preventing plaque buildup requires good oral hygiene habits, a healthy diet, and regular dental checkups. By taking these steps, you can maintain good oral health and overall health.

While regular brushing and flossing can remove most of the plaque, some of it may remain in hard-to-reach areas such as between teeth or below the gum line. Over time, this plaque can harden into a substance called tartar or calculus. Tartar is a hard, yellowish material that forms on teeth and cannot be removed by brushing and flossing alone. It can only be removed by a professional dental cleaning. If tartar is not removed, it can lead to more serious oral health problems such as periodontitis, a severe form of gum disease that can cause tooth loss. Periodontitis occurs when the gums become inflamed and pull away from the teeth, creating pockets that become infected. The infection can spread to the bone and other tissues that support the teeth, leading to tooth loss [4].

In addition to regular dental cleanings, there are other treatments that may be recommended to prevent plaque buildup and treat gum disease. These include scaling and root planning, a deep cleaning procedure that removes plaque and tartar from below the gum line, and antibiotics, which may be prescribed to kill the bacteria that cause gum disease. It is also important to note that certain factors can increase the risk of plaque build-up and gum disease. These include smoking, diabetes, hormonal changes, and certain medications. If you have any of these risk factors, it is important to take extra steps to maintain good oral health and prevent plaque build-up [5].

References

1. Rosan B, Lamont RJ. Dental plaque formation. *Micro and Inf.* 2000;2(13):1599-607.
2. Marsh PD, Bradshaw DJ. Dental plaque as a biofilm. *Jr Ind Micro Bio and BioTech.* 1995;15(3):169-75.
3. Marsh P. Dental plaque. *Oral Micro Bio.* 1992:98-132.
4. Scheie AA. Mechanisms of dental plaque formation. *Adv dent.* 1994;8(2):246-53.
5. Marsh PD. Dental plaque as a microbial biofilm. *Res.* 2004;38(3):204-11.

*Correspondence to: Miao W, Department of Periodontics, Nanjing Tech University, China. Email: miaowj@njtech.edu.cn

Received: 26-Apr-2023, Manuscript No. AACDOH-23-97741; Editor assigned: 29-Apr-2023, PreQC No. AACDOH-23-97741(PQ); Reviewed: 13-May-2023, QC No. AACDOH-23-97741; Revised: 17-May-2023, Manuscript No. AACDOH-23-97741(R); Published: 24-May-2023, DOI:10.35841/aacдох-7.3.141