



## Plaque Formation: How it Develops and what you can do about it

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### INTRODUCTION

However, when the plaque becomes large enough to significantly reduce blood flow, it can lead to serious cardiovascular events. When a plaque in the coronary arteries ruptures, it can cause a blood clot to form, which blocks the flow of blood to the heart. This interruption of blood flow can damage the heart muscle, leading to a heart attack. Similarly, if a plaque ruptures in one of the arteries leading to the brain, it can block blood flow to the brain, resulting in a stroke. Plaque buildup in the arteries of the limbs can reduce blood flow to the legs and feet, causing pain, numbness, and in severe cases, gangrene. Age, gender, and genetics play significant roles in the risk of atherosclerosis. Men are generally at a higher risk at an earlier age, although the risk for women increases post menopause. These include high cholesterol, high blood pressure, smoking, obesity, physical inactivity, and diabetes. These factors can be controlled or mitigated through lifestyle changes, medication, and regular monitoring. Prevention of atherosclerotic plaque buildup is essential for maintaining cardiovascular health. A diet low in saturated fats, trans fats, and cholesterol can reduce the accumulation of plaque in the arteries. A diet rich in fruits, vegetables, whole grains, and healthy fats like omega-3 fatty acids is recommended [1,2].

### DESCRIPTION

Regular physical activity helps to improve circulation, reduce blood pressure, and maintain a healthy weight. Statins are commonly prescribed to lower cholesterol levels and reduce the risk of plaque buildup. Blood pressure medications and aspirin may also be used to prevent plaque rupture and blood clot formation. Quitting smoking is one of the most effective ways to reduce the risk of atherosclerosis and heart disease. Dental plaque is a sticky, colorless film of bacteria that forms on the teeth. It is primarily composed of bacteria, food particles, and saliva [3,4]. While dental plaque is a natural part of the oral environment, excessive plaque buildup can lead to various dental problems, including tooth decay, gum disease, and

bad breath. Dental plaque forms when bacteria in the mouth feed on the sugars and starches found in food. These bacteria produce acids that can erode tooth enamel, leading to cavities and other dental issues. Plaque can form on both the outer surface and between the teeth, particularly in areas that are difficult to clean, such as along the gum line and in the back of the mouth. If dental plaque is not removed through regular brushing and flossing, it can harden into tartar (also called calculus).

### CONCLUSION

Tartar can only be removed by a dentist or dental hygienist, and if left untreated, it can lead to gum inflammation, infection, and more severe conditions such as periodontitis. Periodontitis is an advanced stage of gum disease that can result in tooth loss if not managed properly. Plaque's primary contribution to tooth decay is through the acids it produces. These acids can demineralize tooth enamel, eventually leading to cavities if not treated. Plaque can also irritate the gums, causing gingivitis, which is characterized by redness, swelling, and bleeding of the gums. If left untreated, gingivitis can progress to periodontitis, which can lead to tooth loss.

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### CONFLICT OF INTEREST

The author's declared that they have no conflict of interest.

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