



## Oral Health

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Oral health refers to the health of the mouth, teeth, gums, tongue and lips. Oral health is related to general health and quality of life. There are billions of bacteria in our mouths breaking down food and drink, making it digestible. Some bacteria are responsible for gum disease and tooth decay.

Common oral health issues include tooth decay, tooth loss, gum disease and bad breath.<sup>1,2</sup>

### Tooth decay

Bacteria present in saliva break down the sugars in food and form a biofilm known as plaque. This biofilm coats the surface of teeth. Bacteria present in the plaque produce an acid when combined with food. The acid causes loss of calcium and phosphates from the tooth enamel in a process called demineralisation. Saliva dilutes the acids and contains minerals, so helping to remineralise the teeth. Cavities or dental caries progress when demineralisation exceeds remineralisation. Once there is a hole in the enamel further decay causes cavities in the tooth structure.<sup>2,3,4,5</sup>

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### Tooth erosion

Acid may slowly erode tooth enamel. This affects the entire surface of the tooth, resulting in the thinning of enamel, and the exposure of the softer dentine below. A tooth with exposed dentine may be sensitive to heat, cold and sweet foods or drinks.<sup>4,5</sup>

### Gum disease

There are two types of gum disease or periodontal disease:

- Gingivitis – inflammation of the gum at the necks of the teeth, generally caused by plaque. Gingivitis is characterised by redness of gum margins, swelling and bleeding on brushing. Left untreated, gingivitis may lead to periodontitis.<sup>2,5,6</sup>
- Periodontitis – inflammation affecting the bone and tissue of the gums, potentially leading to bone and tissue loss. Gums may pull away from the teeth allowing for pockets or spaces to form between the teeth and gums. This may cause tooth loosening and tooth loss.<sup>2,6</sup>

Smoking and diabetes are risk factors for gum disease. It is also thought that inflammation in the gums may trigger an inflammatory response elsewhere in the body. Gum disease is a risk factor for heart disease, bacterial pneumonia and other disorders.<sup>7</sup>

### Bad breath (Halitosis)

Bad breath is socially unacceptable. Halitosis is caused by large amounts of volatile sulphur compounds (VSCs) produced by bacteria in the mouth. The amount of these compounds can vary during the day and is influenced by eating, drinking, oral hygiene, sleeping and the effects these factors have on saliva flow. Reduced saliva flow allows for increased bacterial incubation.

Reduction of halitosis is achieved by using antimicrobial mouthwashes and maintaining good oral hygiene.<sup>8</sup>

### Steps to good oral health

There are a number of steps involved in good oral health:

Teeth brushing – teeth should be brushed at least twice a day. A soft to medium brush should be used with a head that is not too big to reach the back of teeth. A toothpaste containing fluoride is recommended. Teeth should be brushed for at least two minutes and all surfaces of all teeth should be covered, particularly where tooth meets gum. Teeth should not be

brushed immediately after eating but rather at least half an hour later.<sup>4,6,9</sup>

Cleaning between teeth – dental floss is commonly used to clean between teeth. This should be done after brushing at least once a day. The aim of cleaning between teeth is to clean the sides of teeth where toothbrushes cannot reach and to clear interdental spaces of debris.<sup>2,6,9</sup>

Sugary foods and drinks provide food for bacteria to make acid. Reducing sugars and acidic foods and drinks in the diet reduces the amount of acid in contact with teeth.<sup>2,9</sup>

Antiseptic mouthwashes also help to prevent gum disease and cleaning the tongue helps to remove bacteria.<sup>2,9</sup>

## Conclusion

Good oral hygiene plays an important role in good oral health. An oral hygiene routine helps to establish and maintain good oral health.<sup>1</sup>

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