

# Oral Hygiene and Dental Care

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## Editorial

Oral hygiene is the practice of keeping one's mouth clean and free of disease and other problems (e.g. bad breath) by regular brushing of the teeth (dental hygiene) and cleaning between the teeth. It is important that oral hygiene be carried out on a regular basis to enable prevention of dental disease and bad breath. The most common types of dental disease are tooth decay (cavities, dental caries) and gum diseases, including gingivitis, and periodontitis.

General guidelines suggest brushing twice a day: after breakfast and before going to bed, but ideally the mouth would be cleaned after every meal. Cleaning between the teeth is called interdental cleaning and is as important as tooth brushing. This is because a toothbrush cannot reach between the teeth and therefore only removes about 50% of plaque from the surface of the teeth. There are many tools to clean between the teeth, including floss and interdental brushes; it is up to each individual to choose which tool they prefer to use.

Sometimes white or straight teeth are associated with oral hygiene. However, a hygienic mouth can have stained teeth or crooked teeth. To improve the appearance of their teeth, people may use tooth whitening treatments and orthodontics.

The importance of the role of the oral microbiome in dental health has been increasingly recognized. Data from human oral microbiology research shows that a commensal microflora can switch to an opportunistic pathogenic flora through complex changes in their environment. Modern oral microbiota are significantly less diverse than historic

populations. Caries, for example, have become a major endemic disease, affecting 60-90% of schoolchildren in industrialized countries. In contrast, dental caries and periodontal diseases were rare in pre-Neolithic and early hominins.

Tooth decay is the most common global disease. Over 80% of cavities occur inside fissures in teeth where brushing cannot reach food left trapped after eating and saliva and fluoride have no access to neutralize acid and remineralize demineralized teeth, unlike easy-to-clean parts of the tooth, where fewer cavities occur. Teeth cleaning is the removal of dental plaque and tartar from teeth to prevent cavities, gingivitis, gum disease, and tooth decay. Severe gum disease causes at least one-third of adult tooth loss.

Since before recorded history, a variety of oral hygiene measures have been used for teeth cleaning. This has been verified by various excavations done throughout the world, in which chew sticks, tree twigs, bird feathers, animal bones and porcupine quills have been found. In historic times, different forms of tooth cleaning tools have been used. Indian medicine (Ayurveda) has used the neem tree, or daatun, and its products to create teeth cleaning twigs and similar products; a person chews one end of the neem twig until it somewhat resembles the bristles of a toothbrush, and then uses it to brush the teeth. In the Muslim world, the miswak, or siwak, made from a twig or root, has antiseptic properties and has been widely used since the Islamic Golden Age. Rubbing baking soda or chalk against the teeth was also common; however, this can have negative side effects over time.