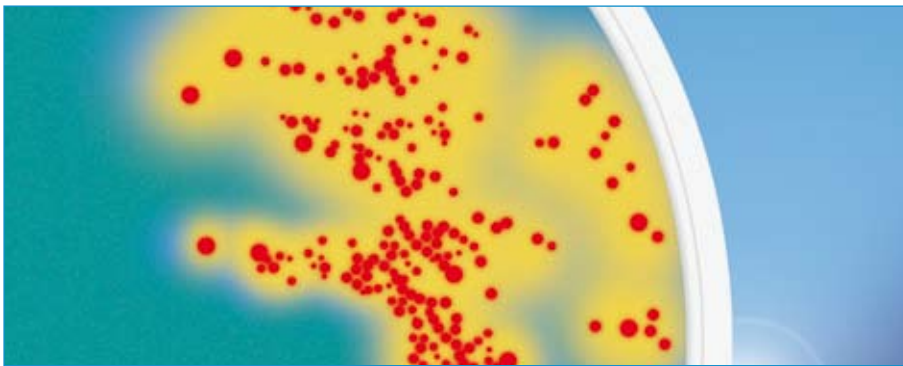


Bacteria and oral malodor



Most of us know oral malodor as, quite simply, 'bad breath'. While regular brushing, mouthwashes, chewing gum and breath sprays are all often used to freshen breath and mask the odor, toothpastes and mouthwashes can also include ingredients that kill bacteria or neutralise compounds responsible for bad breath.

Who suffers from oral malodor?

Most people will experience oral malodor at least occasionally, usually immediately after waking up or after eating certain types of foods.

Levels of foul-smelling substances in the breath vary greatly between people and also at different times during the day. This is because the bacteria responsible for oral malodor are influenced by eating, drinking, oral hygiene and sleep.

What causes oral malodor?

In a small number of people, oral malodor can be the result of digestive or metabolic disorder but in around 9 out of 10 cases, it is the result of bacterial activity in the mouth producing foul-smelling substances.

Recent studies looking at the causes of oral malodor have focused on the tongue. This is because it has a large surface area and has a number of crevices that provide a good hiding place for bacteria.

The natural flow of saliva within the mouth allows bacteria to be flushed away therefore factors that dry out the mouth, such as certain medications, can contribute to oral malodor.

Did you know?

- 1 A good oral hygiene routine plays an important role as it helps to remove or kill the bacteria responsible for causing malodor for many people.
- 2 As many as 1 in 2 people suffer from oral malodor.
- 3 Hydrogen sulfide, H₂S (which is a volatile sulfur compound) smells like rotten eggs and is one of the major components of oral malodor.

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Crevices and deep grooves in your tongue provide a good hiding place for billions of bacteria.

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What other factors may cause oral malodor?

- **Garlic, onions, some kinds of fish, and diets rich in fat and meat** are digested to produce the substances responsible for malodor. These are absorbed into the bloodstream, carried to the lungs and exhaled in breath.
- **Alcohol, cigarettes and certain medicines** (e.g. some antidepressants, antipsychotics, antihistamines, decongestants, and medications to reduce high blood pressure) dry out the mouth, reduce saliva flow and make the problem worse.
- **During sleep**, saliva flow is reduced, which dries out the mouth and allows bacteria to build up, which can lead to oral malodor first thing in the morning. When the mouth dries out, odorous components other than volatile sulfur compounds can be detected and can cause bad breath.
- **Gum disease and tooth decay** have been linked to oral malodor as pockets in gum tissue and cavities in teeth create a harbour for bacteria to grow.

How can oral malodor be reduced?

The most effective way of dealing with oral malodor is to reduce the number of bacteria in your mouth. This can be achieved by ensuring that you have an efficient oral hygiene regimen for example:

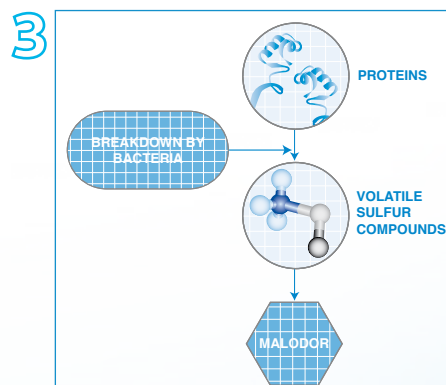
- regular brushing with toothpaste for at least 2 minutes each time
- some toothpastes, mouthwashes or breath mints contain compounds to neutralise breath odor (for example, zinc)
- flossing to remove plaque and food debris between teeth
- tongue scraping or brushing
- Aquafresh iso-active® foaming gel is able to effectively remove 25% more bacteria than ordinary toothpaste and reduce levels of compounds that are responsible for bad breath.

Your dentist or hygienist will be able to advise on a suitable oral hygiene routine for your mouth.

Did you know?

1 Human saliva is **98%** water but it also contains important substances including mucin, antibacterial compounds and various enzymes. The average human produces **10,000 gallons** of saliva in a lifetime.

2 There are around **500 species** of bacteria present in your mouth.



Bacteria break down proteins in saliva, blood, tissue cells and food and eventually convert them into foul-smelling **volatile sulfur compounds**.