

Bad breath

Definition

[By Mayo Clinic staff](#)

Bad breath (halitosis) can be embarrassing and may cause anxiety. It's no wonder store shelves are overflowing with gum, mints, mouthwashes and other products designed to combat this condition. But many of these products are mere temporary measures.

Certain foods, health conditions and habits are among the causes of bad breath. In many cases, you can improve bad breath with proper dental hygiene. If simple self-care techniques don't solve the problem, you may want to see your dentist or doctor to be sure a more serious condition isn't causing your bad breath.

Symptoms

[By Mayo Clinic staff](#)

Bad breath odors vary depending on the source or the underlying cause of the bad breath. Because it's difficult to rate your own breath, many people worry excessively about their breath even though they have little or no mouth odor. Others have bad breath and don't know it. Because it's difficult to assess how your own breath smells, ask a close friend or relative to confirm your bad-breath questions.

When to see a doctor

If you've been told you have bad breath or are aware that you do, review your oral hygiene habits. Try making lifestyle changes, such as brushing your teeth and tongue after eating, using dental floss, and drinking plenty of water.

If your bad breath persists after making such changes, see your dentist. If your dentist suspects a more serious condition is causing your bad breath, he or she may refer you to a doctor to find the cause of the odor.

Causes

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Most bad breath originates in your mouth. The causes of bad breath are numerous. They include:

- **Food.** The breakdown of food particles in and around your teeth can cause a foul odor. Eating foods containing certain oils is another source of bad breath. Onions and garlic are the best-known examples, but other vegetables and spices also can cause bad breath. After these foods are digested and the pungent oils are absorbed into your bloodstream, they're carried to your lungs and are given off in your breath until the foods are eliminated from your body.
- **Dental problems.** Poor dental hygiene and periodontal disease can be a source of bad breath. If you don't brush and floss daily, food particles remain in your mouth, collecting bacteria that can emit chemicals, such as hydrogen sulfide — the same compound that gives rotten eggs their characteristic smell. A

colorless, sticky film of bacteria (plaque) forms on your teeth and if not brushed away, plaque can irritate your gums (gingivitis) and cause tooth decay. Eventually, plaque-filled pockets can form between your teeth and gums (periodontitis) worsening this problem — and your breath. The microscopic uneven surface of the tongue also can trap bacteria that produce odors. And dentures that aren't cleaned regularly or don't fit properly can harbor odor-causing bacteria and food particles.

- **Dry mouth.** Saliva helps cleanse your mouth, removing particles that may cause bad odors. A condition called dry mouth (xerostomia) can contribute to bad breath because production of saliva is decreased. Dry mouth naturally occurs during sleep, leading to morning breath. Dry mouth is even more of a problem if you sleep with your mouth open. Some medications can lead to a chronic dry mouth, as can a problem with your salivary glands.
- **Diseases.** In about 10 percent of bad breath cases, the bad odors do not come from the mouth (extra-oral halitosis). For example, illnesses, such as some cancers and metabolic disorders, can cause a distinctive breath odor as a result of chemicals they produce. Diabetes and kidney or liver failure can lead to a fishy smell. Uncontrolled diabetes can also cause a fruity breath odor from chemicals called ketones. And chronic reflux of stomach acids (gastroesophageal reflux disease, or GERD) has been associated with bad breath. In addition, some medications — such as those used to treat high blood pressure, psychiatric conditions, or urinary problems — can indirectly produce bad breath by contributing to dry mouth. Other medications may be broken down in the body to release chemicals that can be carried on your breath.
- **Mouth, nose and throat conditions.** Another source of bad breath is the nasal passages. For example, bad breath is associated with sinus infections because nasal discharge that drips from your sinuses into the back of your throat (postnasal drip) can cause mouth odor. Sometimes bad breath can be traced to upper and lower respiratory infections, or ulcers in the respiratory system. And malformations of the oral-nasal cavity, such as cleft palate, can lead to bad breath because they provide ideal environments for bacteria to multiply without being disturbed. Bad breath can occasionally stem from small stones that form in the tonsils. These stones can be covered with bacteria that produce odorous chemicals. Bad breath in young children is often traced to a foreign body, such as a toy or piece of food, lodged in a nostril.
- **Tobacco products.** Smoking dries out your mouth and causes its own unpleasant mouth odor. Tobacco users are also more likely to have periodontal disease, an additional source of bad breath.

Preparing for your appointment

[By Mayo Clinic staff](#)

Dentists generally prefer morning appointments for testing bad breath. Don't eat, drink, chew gum, smoke or brush your teeth for three hours before your appointment. Also, don't wear perfume, scented lotions, or scented lipstick or lip gloss to your appointment, as these products could mask any odors. If you've taken antibiotics within the last month, check with your dentist to see if your appointment needs to be rescheduled.

What to expect from your dentist

The examination will likely start with an evaluation of your medical history. Your dentist is likely to ask you a number of questions, such as:

- When did you first begin to experience bad breath?
- Is your bad breath occasional or continuous?
- How often do you brush your teeth or clean your dentures?

- How often do you floss?
- What kinds of foods do you eat?
- What medications do you take?
- Do you breathe through your mouth?
- Do you snore?
- Do you have allergies or sinus problems?
- What do you suspect might be causing your bad breath?
- Have other people noticed and commented on your bad breath?

Your dentist will likely smell both the breath from your mouth and the breath from your nose, and he or she will rate the odor on a scale of 0 to 5, with 0 being no odor, 1 being barely detectable, and 5 being unbearably foul. Because the back of the tongue is most often the source of the smell, he or she may also scrape it with a plastic spoon and rate its odor. There are sophisticated detectors that can identify the chemicals that are responsible for bad breath, but these are typically not used by most dentists because of expense. More affordable devices are currently in development.

Treatments and drugs

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Treatment for bad breath can vary, depending on the cause. If your bad breath is found to be caused by an underlying health condition, your dentist will likely attempt to help you better control that condition. Other dental measures may include certain mouthwashes and toothpastes or treatment of dental disease.

- **Mouth rinses and toothpastes.** If your bad breath is due to a buildup of bacteria (plaque) on your teeth, your dentist may recommend a mouth rinse that kills the bacteria. Research shows that those containing cetylpyridinium chloride and those with chlorhexidine can prevent production of odors that cause bad breath. Other active ingredients, such as chlorine dioxide and zinc, are good at neutralizing odor-causing bacterial byproducts. Your dentist may also recommend a toothpaste that contains an antibacterial agent to kill the bacteria that cause plaque buildup.
- **Treatment of dental disease.** If your dentist discovers that you have gum disease, you may be referred to a periodontist (gum specialist). Gum disease can cause the gums to pull away from the teeth, leaving deep pockets that accumulate odor-causing bacteria. Sometimes these bacteria can be removed only by professional cleaning. Your dentist might also recommend replacing faulty tooth restorations, which can be a breeding ground for bacteria.

Lifestyle and home remedies

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Try the following steps to improve or prevent bad breath:

- **Brush your teeth after you eat.** Keep a toothbrush at work to brush after eating. Be sure to brush at least twice a day, especially after meals. Toothpaste with antibacterial properties has been shown to reduce bad

breath odors for up to 12 hours.

- **Floss at least once a day.** Proper flossing removes food particles and plaque from between your teeth.
 - **Brush your tongue.** A tongue scraper is more effective than a brush for reducing odors that originate from the tongue. Another option is to use a toothbrush with a built-in tongue cleaner on the back. These brushes reportedly work just as well as scrapers.
 - **Clean your dentures well.** If you wear a bridge or a partial or complete denture, clean it thoroughly at least once a day or as directed by your dentist.
 - **Drink plenty of water.** To keep your mouth moist, be sure to drink plenty of water — not coffee, soft drinks or alcohol, which can lead to a drier mouth. Chewing gum (preferably sugarless) or sucking on candy (preferably sugarless) also stimulates saliva, washing away food particles and bacteria. If you have chronic dry mouth, your dentist or doctor may additionally prescribe an artificial saliva preparation or an oral medication that stimulates the flow of saliva.
 - **Adjust your diet.** Decrease alcohol and coffee intake and avoid other food and beverages that can precipitate bad breath. Eating fibrous foods can help.
 - **Use a fairly new toothbrush.** Change your toothbrush every three to four months, and choose a soft-bristled toothbrush.
 - **Schedule regular dental checkups.** At least twice a year, see your dentist to have your teeth or dentures examined and cleaned.
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