

Bad Breath Guide

A Comprehensive Guide to **Bad Breath**: From Symptoms to Prevention.

Introduction

The objective of the guide is to provide an understanding of bad breath. This includes the symptoms, treatment options, home remedies and prevention techniques.

Table of Contents

1. [What is Bad Breath?](#)
2. [Bad Breath Causes](#)
3. [Symptoms of Bad Breath](#)
4. [Bad Breath Diagnosis](#)
5. [Bad Breath Treatment](#)
6. [Bad Breath Home Remedies](#)
7. [Easy Ways to Prevent Bad Breath](#)
8. [Summary](#)
9. [Dr. Katz Explains the Science of Bad Breath](#)

1. What is Bad Breath?

Bad breath, which is also called **halitosis**, is an embarrassing health condition that affects approximately 30% of people around the world. It is associated with a foul oral odor (**Volatile Sulfur Compounds**), usually created by a group of anaerobic sulfur-producing bacteria, that breed beneath the surface of the tongue and often in the throat and tonsil area. Temporary oral malodor may also be caused by certain foods which are naturally odor-producing. Generally speaking, for healthy individuals, food odors are transitory, and normal salivary flow will eliminate it within several minutes. However, for those who suffer with dry mouth and consequently, lack of saliva, even minor food odors may end up becoming long term bad breath problems.

According to the Academy of General Dentistry (AGD), in over 90% of bad breath cases, the odor originates in the mouth, throat, and tonsils (if present). The only scientifically proven and clinically effective method of halting halitosis is by attacking the bacteria's ability to produce **Volatile Sulfur Compounds (VSCs)** and by converting the VSCs into non-odorous and non-tasting organic salts. Simply put, the rate at which bacteria digest protein and excrete waste has to be slowed, and the waste that is produced has to be neutralized. Halitosis may also indicate other health related issues

related to the gastrointestinal tract, throat, tonsils, liver, lungs, or kidneys. Please continue reading this guide to learn more about bad breath causes, treatment and prevention.

2. Bad Breath Causes

There are many **bad breath causes**, with the primary cause being the build-up in odor-producing bacteria and food particles in the oral cavity. Its density differs during the day. Certain foods and health conditions may magnify bad breath. Bad breath can also result from poor dental health habits. There are millions of filaments (papillae) on the tongue that trap food particles, creating a nexus of odor-causing bacteria and available food particles beneath the surface of the tongue. That is why brushing your tongue, as well as teeth, is so important. Most chewing gums and mints only mask bad odor.

Please keep in mind that one cannot remove these bacteria from the tongue. Consequently, scraping or brushing the tongue is a temporary solution at best, and is typically frustrating for most who believe “tongue scraping or tongue brushing” is a permanent solution to bad breath. These bacteria are actually part of your normal oral flora and need to be present in order to break down proteins as a key step in proper digestion. A much simpler clinically-proven concept is to interrupt the chemical production of odors at this crucial point by the introduction of oxygenating compounds. This is because the bacteria that cause the problem are anaerobes (which mean they cannot survive and function in the presence of oxygen).

As a condition, bad breath can be made worse by certain foods such as onions and garlic (which already contain smelly sulfur compounds), cheese, meat, and fish (which contain dense proteins used as a sulfur source by the anaerobic sulfur-producing bacteria) and coffee (acidic, and becomes worse with sugar and milk). Chewing tobacco-based products or smoking affects oral hygiene (makes the mouth very dry losing saliva) and causes bad breath. Poor dental hygiene leads to bacterial buildup on the teeth and gums, leading to gum disease (gingivitis and periodontitis), which may also cause halitosis (proteins from bleeding gums provide fuel to odor-causing bacteria). Individuals who suffer from diabetes, lung disease or kidney disease often experience chronic bad breath, often due to dry mouth. Respiratory tract infections are often linked to halitosis. Certain drugs, such as antidepressants, high blood pressure medications, and antihistamines can cause bad breath as well because they reduce saliva production.

Most people experience bad breath in the morning due to lack of saliva production while they sleep. This process is perfectly normal and does not indicate any serious health condition. That's why it's important to always eat something in the morning to "kick start" your saliva production as a natural way to freshen your breath. Those who skip breakfast tend to have "morning breath" until they eat something. Individuals who have problems with their salivary glands or take certain medications for treating high blood pressure or urinary problems are often diagnosed with chronic [dry mouth](#). Bad breath also affects people suffering from kidney or liver failure, metabolic disorders and cancer and radiation therapy.

Fruity breath usually indicates diabetes. Renal infections, some carcinomas and metabolic dysfunction may cause foul breath odor. Herpes simplex and HPV are sometimes associated with halitosis as well. According to studies, in approximately 10% of all cases, bad breath is caused by certain illnesses. Sinusitis, pneumonia, bronchitis and polyps affect the airways and may cause halitosis.

Other common factors responsible for bad breath include nasal odor, putrefaction from the tonsils and Zenker's diverticulum. Dental caries, yeast infections of the mouth and gum disease are some of the main dental causes of halitosis. Bad breath is often triggered by malformations of the oral-nasal cavity or foreign bodies lodged in a nostril. A partially erupted wisdom tooth can cause bad breath. Because halitosis can indicate a more serious problem, it is important to visit your dentist if bad breath persists.

3. Symptoms of Bad Breath

Bad breath is a medical condition that lowers self-esteem and affects everyday life and personal relationships. People with chronic or recurring bad breath often lose their self-confidence. It can be difficult to know if you have this problem. Family members and colleagues may not tell you. One of the best ways to find out if you have bad breath is to lick the inside of your wrist, wait five seconds and then take a whiff. You may also use a Halimeter to measure the concentration of sulfides in the mouth (see below).

Most **symptoms of bad breath** depend on the underlying cause of halitosis. Individuals who suffer from bad breath because of dry mouth, experience difficulty speaking, difficulty swallowing, a burning sensation in the mouth and dry eyes. Fever, sore throat, persistent cough and swollen lymph nodes in the neck indicate respiratory tract infections. If bad breath is accompanied by open sores on the tongue, red gums and



loose teeth, then you might have an infection in the mouth. The most common symptoms of bad breath include post-nasal drip, a bitter metallic taste, a white coating on the tongue and thick saliva.

Odor from the nose is usually a sign of dryness, polyps or sinusitis. When the odor appears upon talking, it often indicates postnasal drip on the back of the tongue. A bad taste all day long is a sign of excessive bacterial activity on the tongue. Sometimes breath odor is accompanied by cold-like symptoms, vomiting, sore throat, lung inflammation, nasal polyps, rapid heartbeat or bloody sputum. Each of these symptoms may indicate certain diseases and illnesses such as periodontitis, acute bronchitis, or cystic fibrosis. The "rotten egg" smell may indicate cirrhosis of the liver, while a sweet or fruity odor is a clear sign of diabetes. An ammonia-like odor indicates the patient may suffer from kidney failure.

4. Bad Breath Diagnosis

Dental researchers use several methods to **diagnose bad breath halitosis**. [Gas chromatography](#) allows the researcher to measure various Volatile Sulfur Compound gasses from the mouth and throat. Most chromatographs are used by researchers at University research centers.

Using a Halimeter® to Diagnose Bad Breath

The Halimeter is the most commonly used clinical diagnostic instrument in the field of Halitosis. It measures the concentration of Hydrogen Sulfide in parts per billion (ppb) in mouth air. The Halimeter (also known as a portable sulfide gas monitor) uses a patented electrochemical voltammetric sensor, providing reproducible results for clinicians for the past 20 years. It has been demonstrated hundreds of times on national and local television by Dr. Harold Katz on programs such as The View, Good Morning America, and CBS Morning News.

Readings on the Halimeter range from ZERO up to 2,000 ppb. Generally speaking, a reading of 100 ppb or higher is considered clinical bad breath. In other words, breath odor with 100 ppb of hydrogen sulfide per sample would be detectable by someone next to them as unpleasant. Below that number, it would most likely be difficult to detect. Readings are higher in the morning and late afternoon when the mouth is more dry.

If you present high readings, your doctor may determine the cause of your breath problem through a detailed healthy history and medical questionnaire. He will also look at your tongue to see if the coating is more than 12 hours old. If the doctor suspects



diabetes, liver disease or lung infections, he will order diagnostic tests and examine your salivary glands, teeth, and gums. He will ask you a few questions about your diet and dental hygiene.

Some specialists use a flexible camera to inspect the nasal cavity, pharynx and throat. Diagnosing halitosis may also require x-rays and periodontal charting. It is recommended that you go to the dentist if you have bad breath with loose teeth or painful gums that bleed easily. During the examination, the doctor will determine if there are any untreated diseases or dental problems responsible for bad breath.

5. Bad Breath Treatment

In most cases bad breath can be successfully treated. If the dentist determines that the odor is not of oral origin, he will send you to a specialist for further testing. He will also clean the areas where plaque is caught between your teeth.

Bad breath treatment depends on its cause. In general, the doctor will recommend certain mouthwashes and toothpastes to treat bad breath and neutralize volatile sulfur compounds. The most common treatment options include antibacterial mouthwashes and toothpastes. Studies have shown that mouthwash and toothpaste products that contain chlorine dioxide or sodium chlorite neutralize volatile sulfur compounds and help control bacteria found in the mouth. If the patient is experiencing dryness in the mouth, the doctor will recommend a saliva substitute to moisten the mouth throughout the day. Other effective, natural ingredients to look for in oral products are zinc gluconate, aloe vera, green tea, tea tree oil, xylitol, CoQ10, glycyrrhizic acid, oral probiotics (K12 and M18).

Halitosis takes several forms. Depending on what type of halitosis you suffer from, the dentist will recommend a treatment plan. Genuine halitosis can sometimes be detected by organoleptic testing (sniff test). A patient who suffers from pseudo-halitosis feels that they have bad breath although the doctor doesn't find any real breath problem. Individuals diagnosed with halitophobia feel that they still have breath problems despite the fact that they have been successfully treated for halitosis. In this situation, the doctor may recommend psychological counseling.



TheraBreath® Products for Bad Breath Treatment

Get rid of bad breath, guaranteed! TheraBreath® has developed a complete line of products to help you treat bad breath and maintain fresh breath. In using a scientific approach to treating oral health issues, TheraBreath® has become the best choice for fresh breath and strong oral health. Click one of the products below to get started.

Top-Selling Halitosis Treatment Products

- [TheraBreath Toothpaste](#)
- [TheraBreath Oral Rinse](#)
- [TheraBreath Multi-Symptom Probiotics](#)

6. Bad Breath Home Remedies

The use of simple self-care techniques can often minimize this problem. There are several things one can do in order to get rid of bad breath. Ask your dentist about better ways to floss and a mouthwash that has been shown to be effective in fighting bad breath. Go to a dental professional to have your teeth cleaned on a regular basis.

Other **bad breath remedies** include reducing the food supply available to the bacteria that cause bad breath - this is one of the most effective ways to cure halitosis. Brushing and flossing your teeth help remove plaque and kills bacteria. To stimulate the salivary flow, chew gum, lozenges, or mints making sure they are sugar free sugar feeds bad breath bacteria. Occasionally rinsing the mouth with lemon juice diluted with water is a popular home remedy for bad breath. One of the best ways to remove bacteria in the mouth is to eat an apple a day. It helps moisten the mouth, too.

If the problem persists, take a dietary supplement, such as Vitamin C, Vitamin D, Vitamin E, and Vitamin B. Brushing your teeth with occasionally with baking soda helps neutralize any excess acids found in the oral cavity.

7. Easy Ways to Prevent Bad Breath

Preventing bad breath is easier than treating it. Eat quality, easy to digest food and use oral health products that help prevent halitosis. Avoid eating cookies, cakes, sweets, ice cream and other foods that contain refined carbohydrates.



Using mouthwashes can help you prevent breath problems. Some mouthwash products eliminate existing bad breath, while others remove odor and stop the germs responsible for bad breath. Avoid alcohol based mouthwash because the alcohol makes the mouth very dry, which can easily lead to bad breath for many people.

Green and black teas contain polyphenols that help eliminate sulfur compounds and reduce oral bacteria. If you want to prevent bad breath, avoid taking antidepressants, diuretics, pain relievers and antihistamines. These drugs inhibit saliva flow and cause halitosis. Use oral hygiene products that do not contain sodium lauryl sulfate or alcohol.

Practice good oral hygiene to prevent and reduce bad breath. Periodontal disease, also known as gum disease, is one of the main causes of bad breath.

Stop smoking and drinking coffee. Studies have shown that smokers present a higher risk of developing periodontal disease. More than that, smoking is associated with decreased moisture in the mouth.

To prevent dry mouth, breathe through your nose instead of your mouth and keep your mouth moist by drinking plenty of water. Using dental floss regularly and removing dentures at night are some of the best ways to prevent and cure halitosis.

Clean your dentures at least once a day. Clean your mouth after eating meat, fish and dairy products. Eat foods rich in fiber.

Eliminate all dairy products from your diet. Many times bad breath is caused by milk intolerance. Use an oral probiotic (S. salivarius K12 and M18) to balance the oral cavity, helping to prevent an overgrowth of the nasty bacteria that can cause bad breath, gum disease, plaque, tooth decay, ear aches, and sore throats.

8. Summary

Bad breath is rarely associated with life-threatening diseases. However, it is important that you consult a dentist or physician as soon as you notice consistent white spots on the tonsils, sores in the mouth or fever. Sometimes bad breath is triggered by severe health problems such as throat or mouth cancers, human immunodeficiency virus (HIV) infection, digestive system disorders or diabetes. Halitosis can also indicate dehydration or zinc deficiency. **Taking proper care of your teeth and**



visiting the dentist at least twice a year are the easiest ways to avoid breath problems.

9. The Science of Bad Breath

Bad breath is basically caused by anaerobic sulfur-producing bacteria. These bacteria live within the surface of the tongue and in the throat and are nothing to worry about — they are naturally occurring. These bacteria are supposed to be there because they assist humans in digestion by breaking down proteins. Proteins are commonly found in food, mucus or phlegm, blood, and in diseased or "broken-down" oral tissue. Not a very pretty picture, but this is the science of what happens in your mouth.

Under certain conditions, these bacteria start to break down proteins at a very high rate. It so happens that proteins are made up of amino acids. Two of the amino acids (cysteine and methionine) are dense with sulfur. When the bacteria really crank up the rate at which they break down proteins into amino acids, the rate at which sulfur is produced also increases and BINGO! You have halitosis.

As bacteria feasts on proteins in your mouth sulfur compounds are released from the back of the tongue and throat. Bacteria excrete waste as hydrogen sulfide, methyl mercaptan, and other odorous and bad tasting compounds. These smelly substances are called volatile sulfur compounds (VSC). Volatile means vaporous and effervescent, two adjectives which accurately describe their ability to offend other people instantly. As long as this process continues unchecked, your breath gets worse and worse.

Finding a Solution to Prevent Halitosis - Bad Breath Remedies

Because my original degree is in bacteriology, I was able to understand the process both as a Dentist and as a Bacteriologist. This was the key to finding an effective ongoing solution for halitosis. The first and most important thing to keep in mind is that the bacteria responsible for bad breath are not an infection, a 'disease' or a sign of poor health or hygiene. Everyone in the world has the same group of bacteria in their mouth. You cannot "catch" bad breath from someone else, even by kissing. It's simply a matter of how quickly they work on digesting proteins, how many there are, and how much food they have to work with that are the driving causes of worsening breath. Since they are part of our normal oral flora, you cannot permanently remove these bacteria from your mouth — not by tongue scraping, antibiotics, or rinses which claim to "lift the bacteria off your tongue."

During my tenure as Director of the California Breath Clinic I've personally treated over 10,000 cases of halitosis and discovered this one important truth: The only scientifically proven and clinically effective method of halting halitosis is by attacking the bacteria's



ability to produce VSCs and by converting the VSCs into non-odorous and non-tasting organic salts. Simply put, the rate at which bacteria digest protein and excrete waste has to be slowed, and the waste that is produced has to be neutralized.

Developing the #1 Most Effective Bad Breath Product on the market*

**As determined by independent clinical trials, 2006*

TheraBreath was developed to work on this central principle: that you have to treat the bacteria producing VSCs in your mouth in order to prevent bad breath. TheraBreath's Oxygenating action inhibits the ability of bacteria to digest and multiply rapidly. Further, its patented formula instantly neutralizes the odors associated with bacteria in the mouth, leaving your breath sparkling clean.

Since the release of TheraBreath in 1997, my formulas have become America's #1 Selling Fresh Breath solution. Millions of people a month now rely on TheraBreath to keep their breath fresh, mouth clean, and teeth healthy and free of plaque and cavities. If you are looking for a solution to Bad Breath and you haven't yet tried TheraBreath for yourself, what's keeping you?

Find out what Millions of Americans already know: TheraBreath is the best and easiest way to stop bad breath anywhere!