

Bad Breath is a common complaint in the dental office. The smell that comes from the mouth (similar to rotten eggs) is sometimes referred to as VSC's or volatile sulfur compounds. The causes of mouth odor can include "periodontal" or gum disease, bacteria growing on the surface of the tongue and teeth is called plaque which also gives people bad breath. Food debris mixed with bacteria and salivary salts forming a hard cement like substance is called calculus, which can be embedded between the teeth. There are other causes such as dry mouth syndrome or xerostomia as well as problems within the digestive tract that can send foul smelling gasses into the mouth. We will examine a few of these problems and their solutions.

The best way to treat bad breath is through proper brushing, flossing and the use of a tongue scraper. Since most bad breath bacteria are anaerobic (without oxygen) they die in the presence of oxygen. Brushing your teeth with toothpaste, flossing and scraping the film off of your tongue are mechanical ways of "scrubbing" off bacteria and exposing them to oxygen.

Mouth rinses such as Listerine, chlorhexidine gluconate and chlorine dioxide are chemical ways to kill the germs that cause bad breath. Alcohols can kill bacteria and the ingredients in mouth rinses that have eucalyptol, menthol, and thymol are all effective ways to reduce bacterial levels.

Foods can cause bad breath and onion, garlic and certain vegetables have oils that can remain on the tongue, between your teeth and even be smelled through the pores in your skin. Most breath mints can do very little to eliminate these smells after ingested.

What can I do to treat my bad breath?

If your bad breath is from:

- Bad teeth and cavities: Go in for a comprehensive examination and x-ray visit. Your dentist can fill holes in teeth that trap food, bacteria, and could be the source of bad odor.
- Abscesses: If a tooth dies, gasses build up in the root and will drain out the bottom of the tooth. This is called an abscess and is like a pimple in the bone that will cause a fistula or track where the pus will drain into your mouth. This looks like a red swelling and when touched, pus comes out. The dentist can perform a root canal to remove the gasses and fill the root canal space with a rubbery material called gutta percha. This will allow your body to eliminate the cause of the abscess and the pus and swelling will go away.

- Xerostomia: Dry mouth can cause bacteria killing saliva to decrease. Without normal saliva, bacteria can linger, grow and cause really bad breath. This can be treated with over the counter sprays, mouth rinses, gums, and mints which are medications called “salivary substitutes” that will help to lubricate the mouth and get rid of bad germs. A consultation with an ENT (ear, nose, and throat) doctor may be indicated.
- Sinus infection or tonsillar abscess: If there are polyps, cysts, or bacterial growths in the sinus or throat it can lead to bad breath. A visit to the ENT or Oral Surgeon will help to determine if medication or surgery is needed to alleviate the bad breath from these systemic infections.
- Gum Disease: also called periodontal disease or pyorrhea. The treatment is to remove the bacteria that are present under your gums. This is first done with deep cleanings called scaling and root planing appointments where you are given anesthetic and a dental hygienist cleans the root surfaces. Then there may be antibiotic medications like Arestin, Perio chips, which are inserted in the pockets between the tooth and gums to further kill the bacterial causes of halitosis. Mouth guards with medicine called Perio Protect are additional ways to introduce germ-killing medicines where they are needed most.
- Severe Periodontal disease: In instances where the bone has eroded too severely, dental flossing can’t reach the deeper bugs. So the pocket must be opened up, cleaned and the diseased gum tissue removed. This is called periodontal surgery.
- Systemic disease: Certain conditions like diabetes can cause ketoacidosis where your breath can smell fruity because your body doesn’t have enough insulin to break down sugars so they break down fats instead. The treatment would be to get to the hospital right away or call 911 as it can be life threatening. Other systemic causes of bad breath can be lung disease, kidney disease, impacted bowel, sinus infection, cancer and when all causes of mal-odor that are obvious have been addressed then medical consultation to rule out these systemic issues is necessary.
- Film on tongue: The coating on the tongue is filled with papillae that can trap food, bacteria and saliva and can lead to bad breath. The bacteria will grow in these deep hills and valleys and a tongue scraper will remove the coating, expose the bacteria to air and mechanically scrape off the germs that cause bad breath.
- GERD: Gastroesophageal reflux disorder means that the valve in the stomach isn’t working properly and digestive gasses are escaping up the esophagus into the mouth. The treatment is to see your physician for an evaluation, diagnosis and possible medication to treat this disorder.
- Smoking: People that smoke will have a higher incidence of gum disease, bone loss; yeast infection, cancer and all of these can lead to bad breath. The tar and nicotine, smoke and other components of cigarettes lead to decreased blood supply and the best way to treat bad breath is to quit

smoking. Discussing medication like Chantix, or Nicotrol, behavior modification and other smoking cessations techniques that your doctor recommends can do this.