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# A Theory on Curing Children's Bad Breath: Oral Health

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## Abstract

This comprehensive study examines the causes of kid halitosis and tries to treat children's breathing problems. It also discusses how a parent or caregiver can handle it, how to prevent it, and when to seek medical advice. Infants who have GER may experience regurgitation and "spitting up," according to the National Institute of Diabetes and Digestive and Kidney Diseases. Infants frequently experience GER and regurgitation, especially those who are under a year old. Numerous variables, according to experts, may contribute to baby GER. An infant spends a lot of time lying down for the first six months of their life and eats mostly liquid-based meals. As the infant stands up more regularly and consumes more solid foods, GER occurs less frequently. Additionally, it becomes better as their digestive system matures. The ideal foods for those with bad breath are covered in this article.

Keywords: Regurgitation; GER; Halitosis; Kidney Diseases; Halitosis

## Introduction

The healthy and long life of our teeth depends on maintaining proper oral health. Numerous different medical problems might be triggered by poor oral health [1]. A typical problem is bad breath. Lack of cleanliness or other chronic dental disorders may be the cause of bad smell.

The health of our mouths is directly influenced by our lifestyle. Eating certain foods can make foul breath worse or better. It has been shown that a variety of foods can treat foul breath [2]. Among foods, certain ones are considered to be exceptional. The numerous advantages and great nutritional worth are what give them their name.

## Factors of Children's Bad Breath

Halitosis, sometimes known as bad breath, is a disorder of the oral cavity characterised by an offensive breath smell. Dental cavities, poor oral hygiene, mouth breathing, and breathing disorders including sinusitis are among the common factors that contribute to halitosis in youngsters [3]. For a variety of causes, kids can have terrible breath. After they brush their teeth, it typically goes away temporarily. Lack of dental hygiene or other factors could be to blame for persistent halitosis.

A paediatric dentist can give guidance on the best course of action and assist in determining the problem. Treatment or additional research might be involved here. Halitosis can be avoided in youngsters by practising appropriate oral hygiene, such as routinely cleansing the mouth [4].

## Diet

Halitosis in children might be caused by the food they have consumed. Vegetables like garlic and onion, for example, can cause bad breath. Odorous chemicals enter the bloodstream after digestion and can leave through the lungs and breathing [5].

Foods heavy in protein, such as fish, cheese, and meat, might aggravate bad breath. Hard and dry foods, such as chocolate, toffee, and potato chips, can become caught in the teeth and cause bacteria to thrive. Green tea and other herbal teas may aid in the reduction of foul breath.

Best foods for curing bad breath:

Yogurt: Yogurt is an excellent super food to include in your diet

because it fights bad breath in a variety of ways [6]. Yogurt and other dairy products are high in vitamin D, which inhibits the growth of germs in the body. If we eat probiotic yoghurt with good bacteria, our stomach will be happy as well.

**Basil:** Polyphenols, which are natural chemicals found in basil, have been shown in studies to be beneficial at treating bad breath. Basil contains a lot of chlorophyll as well [7]. Chlorophyll is found in leafy green vegetables and can also be taken as a supplement. Although chlorophyll does not fully eliminate bad breath, it does help to mask it.

**Green tea:** Although tea isn't strictly food, its odor-suppressing properties must be overlooked. Antibacterial antioxidants are found in both black and green tea. Tea polyphenols help to lower the sulphur compounds that cause bad breath.

**Citrus fruits:** Vitamin C is well known for its anti-inflammatory qualities, and our mouth is no exception [8]. Citrus fruits, melons, and other vitamin C-rich foods aid in the prevention of gingivitis, which can lead to halitosis and other dental health issues.

**Ginger:** 6-gingerol, a chemical present in ginger, activates a salivary enzyme that aids in the breakdown of sulphur compounds in the mouth. Consider making your own mouthwash by combining warm water, freshly squeezed lemon juice, and crushed ginger [9]. Fresh and processed gingers are both beneficial. Fresh ginger, on the other hand, is preferable. One half-inch chunk is plenty to gnaw on.

**Parsley:** Parsley is one of the most well-known cures for bad breath. The oils in it are what make it effective. Similarly, cinnamon and spearmint can be used to mask bad breath [10]. Cardamom, tarragon, eucalyptus, rosemary, and coriander or cilantro is other herbs and spices that work well for the same purpose.

**Cherries:** Cherries, like other fruits, help to avoid odours that cause bad breath, but they also have an added benefit [11]. Methyl mercaptan

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is eliminated by cherry chemicals. Cherries remove the decaying cabbage flavour caused by methyl mercaptan from the tongue, leaving it feeling clean. They're also high in fibre and vitamin C.

**Dark chocolate:** Dark chocolate consumption decreases oral bacteria and avoids plaque development due to its low sugar level. CBH has been found to reduce tooth decay by strengthening enamel [12]. Cacao naturally contains CBH however the concentration lowers when it is processed to make chocolate.

Our oral health and poor breath are influenced by a variety of circumstances [13]. As a result, we must identify the source of our bad breath. Aside from these foods, we also recommend that you practise good oral hygiene. Brushing twice a day, flossing, using mouthwash and other measures can help you manage and cure foul breath.

#### Oral hygiene issues

According to a 2021 comprehensive assessment, poor dental hygiene can lead to halitosis. Incorrect tooth brushing might result in food particles remaining in the mouth. This can lead to the growth of bacteria, resulting in bad breath [14]. A lack of oral hygiene might put a youngster at risk for dental problems including cavities and gum disease.

### Mouth dryness

According to the National Institute of Dental and Craniofacial Research, saliva aids in the cleaning of the mouth. Saliva sweeps away food debris, which can help to neutralise oral bacteria and cavitycausing acids in the mouth [15]. Children with dry mouths are more likely to develop halitosis and tooth decay because food particles and cavity-causing germs remain in the mouth for longer periods of time. Dry mouth in children can be caused by dehydration, mouth breathing, hot weather, certain drugs, or an underlying health condition.

#### Mouth breathing

According to 2015 research, children who breathe via their mouths appear to suffer halitosis. This could be caused to saliva drying in the mouth. Dry mouth from mouth breathing can lead to foul breath.

Because of nasal congestion or habit, children may breathe via their mouth. Mouth breathing caused by nasal congestion should go away soon the congestion goes away. If a parent or caregiver notices their child breathing through their mouth, they should seek medical attention [16]. A paediatrician can diagnose and treat any ailment that is restricting the airways. They may also provide tips on how to encourage toddlers to breathe through their noses. One technique involves humming with their tongue on their palate.

#### Foreign objects in the nose

If a parent notices that their child has a runny nose and halitosis, it could be due to a foreign item in the nose. According to 2017 research, an impacted foreign body in the nose might induce bad breath in children [17]. Curiosity causes children to place foreign objects into their noses, such as beads, legos, tiny batteries, and food scraps. This can result in an infection and halitosis. In this circumstance, a person should not try to violently remove the foreign item; instead, they should see a paediatrician to have it removed.

## **Diseases and infections**

Halitosis may result from underlying medical issues, say health professionals. These consist of:

**Sinus inflammation:** A 2015 study found that children with sinusitis may experience poor breath. Inflammation of the cavities surrounding the nasal passages is the cause of the disorder known as sinusitis [18]. Viruses, bacteria, fungus, or allergies could all be to blame for this inflammation. Nasal passages and the throat become clogged with fluids due to sinus infections, which is excellent for bacterial growth.

**Tonsillitis:** The tonsils get red and swell during tonsillitis, an infection. Bacteria or viruses are to blame. Tonsillitis most frequently affects those older than 2 years old. When they collect bacteria, food particles, and nasal secretions, enlarged tonsils can result in halitosis.

**Gingivitis:** A youngster may have gingivitis if someone sees that they have swollen gums and bad breath. Gum inflammation known as gingivitis develops when bacterial plaque around the gum line accumulates [19]. Toxins are produced by the bacteria near the plaque, causing swollen, inflamed gums and unpleasant breath. A child's chance of developing gingivitis can be boosted by poor dental hygiene or a medical condition that is already present.

**Tooth decay and other dental infections:** Children who suffer tooth decay are more likely to experience halitosis, said a 2021 study [20]. Food might become lodged in the tooth's damaged area, and germs that cause cavities can also give off unpleasant odours. Children's halitosis can also be brought on by other oral illnesses, such as tooth abscesses or mouth sores.

## Treatment of children's bad breath

The aetiology of halitosis in kids will determine the course of treatment. If a person is concerned, they should contact a doctor or dentist to ensure that the cause is not an underlying health condition. If a medical problem is the reason for halitosis, a healthcare professional can advise on the best course of action. In order to cure children's halitosis at home, parents should: (1) Aid young toddlers and infants with twice-daily oral and gum hygiene, (2) Teach kids how to maintain proper dental hygiene, (3) Feed them a wholesome, well-balanced food, (4) Encourage moderate use of sweetened foods and beverages, (4) To keep their mouths moist, give them a lot of water to drink, (5) Observe their dental appointments.

## Prevention

Halitosis in children can be avoided by practising good dental hygiene.

## For babies

Infants should practise proper dental hygiene even before their first tooth erupts.

The infant's gums can be cleaned twice a day with a soft, clean cloth and water, once after the first feeding and once before bed, suggests the Centres for Disease Control and Prevention (CDC). The American Dental Association (ADA) also suggests having the child's first dental examination before their first birthday and as soon as the first tooth erupts [21]. The first dental visit gives parents the chance to get advice on how to look after their child's teeth and prevent oral health issues like halitosis [22]. The American Academy of Pediatric Dentistry (AAPD) suggests bringing kids in for follow-up check-ups every six months after the initial appointment.

#### For children

A soft-bristled toothbrush and fluoride-containing toothpaste are

advised by experts for use by carers in helping children brush their teeth twice daily. For children younger than three years old, the ADA advises that a caregiver use a very small amount of toothpaste, around the size of a grain of rice [23]. An adult can apply more toothpaste, about the size of a pea, on children older than three. Fluoridated tap water should be given to children as well [24]. Talking to a paediatrician or dentist about the potential need for fluoride supplements is advised for parents whose children drink well water. When brushing their teeth, children under the age of six should have their parents or other adults watch them and make sure the child spits away the toothpaste [25].

## Consult a physician

If a person observes any of the child's symptoms, they should get in touch with a doctor: (1) Persistent bad breath, (2) Dental cavities, dental abscesses, and dry mouth, (3) Painful throat issues with swallowing, eating, or drinking, as well as frequent spitting and vomiting, (4) A high degree, (5) Swollen, red, or sensitive gums, (6) Enlarged tonsils, (7) Gum disease or mouth sores thick, pigmented nasal drainage.

## Conclusion

Halitosis in children is a condition that has many causes. Poor dental hygiene, a medical problem that is present but not yet treated, or other factors could be to blame. Children's halitosis can be prevented and treated with the help of appropriate dental hygiene practises and regular dental visits. A child's dentist may suggest medicine, dietary changes, or additional research in addition to prescribing drugs.

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