

Your Monthly Update

Dear Colleague

Welcome to the April 2009 newsletter from Pure Bio Ltd.

Did you know:

Popular denture adhesives contain high levels of zinc. Two brands, Fixodent and Poligrip, contain zinc at concentrations ranging from 17,000 to 34,000 mcg/g. This means that using two tubes per week could lead to an exposure of 330mg/day of zinc.

The chosen topic for this month is:

Halitosis (Bad breath)

Protocol Summary

Ranking	Nutritional Supplements	Botanical Medicine
Secondary	Coenzyme Q10 (if gum disease) Folic acid (if gum disease) Zinc chloride (rinse or toothpaste)	
Other	Selenium (if gum disease) Vitamin C (if gum disease and deficient) Vitamin E (if gum disease and deficient)	Bloodroot (rinse) Caraway Clove oil (rinse or toothpaste) Eucalyptus Myrrh (rinse) Peppermint Sage Tea tree oil (rinse or toothpaste) Thyme oil (rinse)
<p>Primary – Reliable and relatively consistent scientific data showing a substantial health benefit.</p> <p>Secondary – Contradictory, insufficient, or preliminary studies suggesting a health benefit or minimal health benefit.</p> <p>Other – An herb is primarily supported by traditional use, or the herb or supplement has little scientific support and/or minimal health benefit.</p>		

Causes

Plaque build-up, bacterial decomposition of food particles lodged between teeth, and the use of many substances like coffee, alcohol and cigarettes contribute to an unpleasant

odour. Strong-smelling foods like onions and garlic are also causes of bad breath. Cavities and tooth decay are more pathological causes. Other diseases of the mouth and throat are possible but less common. Bad breath can be a sign of gastro-intestinal dysfunction - such as partially digested food, especially of animal proteins and fats, or improper elimination of toxins through the liver and the kidneys.

Lifestyle Modification

Home oral hygiene is probably the most effective way to reduce accumulations of debris and bacteria that lead to halitosis. This includes regular tooth brushing and flossing, and/or the use of mechanical irrigators to remove accumulations of food after eating. Brushing the tongue or using a commercial tongue scraper, especially over the bumpiest region of the tongue, may help remove the odour-causing agents as well as lower the overall bacteria count in the mouth.

Because of the role of gum disease in halitosis, regular dental care is recommended to prevent or treat gum disease. Treatment for a person with periodontal pockets might include scaling of the teeth to remove tartar.

A reduced saliva flow increases the concentration of bacteria in the mouth and worsens bad breath. One of the most common causes of dry mouth is medication e.g. antihistamines, anti-cholinergics, some antidepressants, and diuretics; however, chronic mouth breathing, radiation therapy, dehydration and various disease-states can also contribute. Measures that help increase saliva production (e.g., chewing sugarless gum and drinking adequate water) may improve halitosis associated with poor saliva flow. Avoiding alcohol (ironically found in many commercial mouthwashes) may also help, because alcohol is drying to the mouth.

Access by oral bacteria to sulphur-containing amino acids will enhance the production of sulphur gases that are responsible for bad breath. This effect was demonstrated in a study in which concentrations of these sulphur gases in the mouth were increased after subjects used a mouth rinse containing cysteine. Cleaning the mouth after eating sulphur-rich foods, such as dairy, fish, and meat, may help remove the food sources for these bacteria.

To treat bad breath, start with a cleansing juice fast for three days to clear the body of undigested food, which often causes bad breath. Change the diet to promote complete and efficient digestion. Drastically reduce or eliminate animal proteins as these are often improperly digested, leaving by-products on which harmful, odour-producing micro-organisms feed. Instead, eat raw vegetables and fruits which are rich in digestive enzymes and fibre. Regular bowel movements are essential for removing toxins which cause bad breath. Chew on carrots, celery sticks, kohlrabi or parsley. Eat fermented foods with acidophilus and other friendly bacteria, like yogurt, kefir and sauerkraut. These foods encourage a healthy intestinal environment by inhibiting the growth of putrefactive bacteria. Avoid sugars and refined carbohydrates, which cause tooth decay. Vitamins A and C are important for healthy teeth and gums - cantaloupes and mangos are excellent sources.

Other therapies

Improved oral hygiene and treatment of underlying infections may be effective in some cases. Mouthwashes might help to control oral bacteria. Persistent halitosis requires professional dental care. Use natural and organic mouthwashes that are alcohol-free e.g. Green People's Mint or Fennel mouthwash are free from SLS, alcohol and fluoride.

Nutritional Supplement Treatment Options

Because most halitosis stems from bacterial production of odiferous compounds, general measures to diminish bacteria and prevent or treat periodontitis and gingivitis may be helpful.

Green-food powders or capsules containing chlorophyll act as a natural breath freshener when taken internally as a gargle or rinse. Chlorophyll capsules, chewed slowly, temporarily eliminate bad breath.

If the gums are unhealthy, [vitamins A](#) and [C](#) encourage healing. [Bioflavonoids](#) work similarly and aid the action of vitamin C. A lack of B vitamins, especially [vitamin B6](#), is also a cause of digestive dysfunction and bad breath.

Adding bacterial cultures like [acidophilus](#) to the diet will often rectify a problem even if digestion seems otherwise normal. Bacterial cultures contribute to a healthy intestinal flora, which improves digestion and inhibits the growth of other bacteria.

Preliminary research has also demonstrated the ability of zinc to reduce the concentration of volatile sulphur compounds in the mouth. One study found that the addition of zinc to a baking soda toothpaste lessened halitosis by lowering the levels of these compounds. A mouth rinse containing zinc chloride was seen in another study to neutralize the damaging effect of methyl mercaptan on periodontal tissue in the mouth.

Nutritional supplements that may be recommended by a practitioner for prevention and treatment of periodontitis include [vitamin C](#) (people with periodontitis are often found to be deficient), [vitamin E](#), [selenium](#), [zinc](#), [coenzyme Q10](#), and [folic acid](#). Folic acid has also been shown to reduce the severity of gingivitis when taken as a mouthwash.

Botanical Treatment Options

The potent effects of some commercial mouthwashes may be due to the inclusion of thymol (from thyme) and eukalyptol (from eucalyptus)—volatile oils that have proven activity against bacteria. Thymol alone has been shown in research to inhibit the growth of bacteria found in the mouth. Because of their antibacterial properties, other volatile oils made from [tea tree](#), [clove](#), [caraway](#), [peppermint](#), and [sage](#), as well as the herbs [myrrh](#) and [bloodroot](#), might be considered in a mouthwash or toothpaste. Due to potential allergic reactions and potential side effects if some of these oils are swallowed, it is best to consult with a qualified healthcare professional before pursuing self-treatment with volatile oils that are not in approved over-the-counter products for halitosis.

- To freshen the breath, rinse the mouth with peppermint tea.
- Other effective herbs for rinsing the mouth are eucalyptus, camomile, [sage](#) and [fennel](#).
- Take sauerkraut juice to regulate intestinal flora.
- [Nettle](#) juice aids elimination and purifies blood.
- [Dandelion](#) juice will stimulate liver functions.
- Take black radish juice to relax the biliary duct.
- Artichoke juice strengthens the liver and improves its detoxifying ability ([Hawthorn and Artichoke formula](#)).

Tissue Salts

General recommendation: Take 4 tablets three times daily under the tongue.

Nat phos helps bad breath related to overacidity. The breath is sour and the mouth tastes acidic.

Use **Nat sulph** to combat a bitter taste related to a poor digestion of fats. The tongue typically has a yellow, slimy coating.

Kali phos relieves bad breath associated with a dry mouth, particularly when nervous tension is present.

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