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## The problem

Everybody worries about this one. The scenario goes something like this: You're talking to a friend when you suddenly notice that they are recoiling, their nostrils are flaring, and they are beginning to back away from you. Puzzled, you move closer to continue the conversation when it hits you that the reason for your friend's reverse gear is that you have a garbage bin in your mouth, a major social problem called bad breath.

Of all of the non-fatal maladies that afflict the human body, fear of bad breath may be one of the most common and embarrassing. Bad breath is universal, affecting all genders, the rich and poor, and the young and old. It is demoralising, for it can strike at any time without warning, early in the day with morning breath, at noon after a power lunch, during a stressful business presentation, or in the evening to cloud social possibilities. It is so traumatic that many people hesitate to mention it to their physicians and dentists. Fear of bad breath fuels the lucrative mouthwash and breath mint industry!

## Basic causes of bad breath

At least ninety percent of bad breath is of oral origin, that is, it comes from the odour caused by bacterial decay of food particles and other debris in your mouth. The cleanest human mouth harbours millions of potentially pathogenic bacteria, and given the right set of circumstances, these bacteria decompose food particles left in the mouth. The odour-causing decay products have technical and imaginative names: *Hydrogen sulphide, methyl mercaptan, diethyl disulfide, putrescence, cadaverine, skatole, and indole.*

Poor hygiene also contributes to bad breath when bacteria putrefy blood that oozes from periodontally diseased gum tissues, creating a particularly revolting and easily identifiable stench. Unclean dentures of any kind can cause bad breath in two ways: First, by absorbing odour themselves, and also by helping to retain food particles.

Just as smelly substances are produced in stagnant water, offensive mouth odours result when the saliva becomes stagnant or diminishes. This is the basic cause of morning breath, that noxious aroma that is observed upon waking. During the night, salivary glands have slowed their functioning, and fresh saliva is meagre, allowing the bacteria in the mouth to multiply. Morning breath tends to be most potent among those who snore or breathe through their mouths. Morning breath generally disappears when you have rinsed your mouth or eaten something such as an apple or a slice of bread.

Morning breath is also associated with hunger odour. This is a distinctive odour that accompanies the sensation of hunger. There is some evidence that hunger breath may arise from the putrefaction of pancreatic juices which pass into the stomach during the fasting state. Hunger breath is very apparent if the morning meal is omitted, even after tooth brushing.

## Testing for bad breath

It's almost impossible to test yourself. For some reason, the human system becomes adjusted to its own odour and, after a while, doesn't even react to it. Some authorities advise licking the back of your hand, waiting a minute or two, and then smelling it. We think that tactic is too unreliable to use consistently. The Japanese were working on an electronic sniffing device some years ago, but I haven't seen it marketed. We wouldn't buy one, even if it were available, because we have deep reservations about the ability of a machine to detect



effectively all of the smells that humans regard as offensive. One possible gambit: Scrape the back of the tongue with a plastic spoon to remove some of the coating. Wait a minute, then sniff it. Some writers feel that much bad breath comes from the posterior tongue.

The only effective method of testing bad breath is to have a trusted friend, a spouse or close relative smell your breath for you. This will give you a definitive verdict for that point in time, but who's to say that an hour later you haven't crossed into the danger area? And maybe your friend likes you so much that they don't find your aroma unpleasant. Maybe they have the same fragrance? In a weird sort of way, this makes sense, neither partner being able to recognise the common stench, two skunks wind up together.

## **Risk factors for bad breath**

A person with bad breath is rarely aware of their offence. They cannot detect their own mouth odour even when they exhale against their hand, or lick it to test the quality of the odour; both methods are unreliable. They usually only become aware that they have it when they notice (as in the example) that people are avoiding them or when someone tells them. All of us are more or less vulnerable at one time or another. Bad breath can come when you least expect it, and it tends to get worse and more frequent as you get older. The intensity of the odour is variable, but researchers usually record the aroma as mild, moderate, pungent, objectionable and very objectionable. We leave it to your imagination to select appropriate examples of this classification.

Halitosis, the technical term for bad breath, or malodour or *fetor ex oris*, as dentists sometimes call it, can curse those whom consume those foods or substances which often cause bad breath: garlic, raw onions, cabbage, horse radish, eggs, broccoli, brussel sprouts, fish, red meat, peppers, cigarettes, alcohol and coffee, but bad breath can occur even if your diet does not include the aforementioned, for the basic causes are always present in the human body: When bacteria in your mouth decompose food, evil smelling putrefaction products result.

Medical risks for bad breath include bronchial and lung infections, chronic sinusitis, post-nasal drip, and tonsillitis. The mucous discharge which comes during cold or flu can create bad breath. Also implicated are untreated nasal polyps, diabetes, syphilis, diseases of the stomach and lungs, liver, or kidneys, and there is a type of halitosis which is caused by a gallbladder dysfunction. Altering the diet to reduce the amount of fat intake will often eliminate this type of "pungent" heavy odour. There is a fetid and "fishy" odour associated with chronic renal or kidney failure. Some medications can cause or exacerbate bad breath. Various cancers can cause malodour. You should consult your physician if bad breath becomes chronic and the simple treatments detailed in this report don't work. However, these problems taken altogether affect a very small percentage of people.

Stress or nervous tension is a major enhancer of bad breath. In fact, there seems to be a stress component to most bad breath. One major effect of stress is drying of the mouth, but stress also aggravates the fulsome odour in other subtle ways. If you have lived through a stressful or unpleasant experience you may have noticed that a case of bad breath also went along with the ordeal. Some people have even developed bad breath during airplane trips. The halitosis promptly going away after a safe arrival. A woman developed bad breath when a man she was dating made advances. Having to give a speech, or take an examination, or endure some other stress-inducing situation may also bring out a malady, so monitor your emotional state for cues.

Some women have a distinctive and mousy odour associated with the onset of menstruation. This is particularly common in the women who suffer from dysmenorrhoea or painful menstruation. The cause is thought to be caused by the rise in oestrogens which trigger sloughing of the body's lining tissues, including those of the mouth. More sloughed tissue means more food for bacteria. Usually the woman is unaware of the odour, but it may be readily apparent to her partner.

Be aware of the fact that some people don't have bad breath at all, but merely think they do. That is, they

imagine that their oral aroma is more intense and offensive than it really is. Such cases of "imaginary" bad breath are sometimes associated with psychological problems. These sufferers may withdraw from society, develop anti-social behaviour, and may even contemplate self-harm.

## **Treating bad breath**

First of all, do the common sense things such as thorough brushing to remove food particles. You should also have regular check-ups to correct possible problem areas such as gum disease, carious teeth, faulty restorations, overhanging fillings, leaking crowns, all of which cause food traps.

For those over thirty, the odour of periodontal disease is a particularly revolting and a common cause of halitosis. It is also easily treated! If you are afflicted with bad breath, a visit to your dentist to find out your options is definitely in order and should be one of the first steps you take.

Having made certain that your medical, physical, and oral condition is as pristine as possible, you need to be religious in your brushing and flossing, follow a proper diet. and all the other good things. Your next steps are as follows:

1. Increase saliva flow. Saliva is the mouth's natural mouthwash; it has antibiotic elements in it which reduce the numbers of bacteria in the mouth. Try chewing sugarless gum. This is an absolute must. I've seen horrible cases of decay and gum disease arise from the habit of frequently eating sugar containing foods. Some people learn how to milk the salivary glands by sucking on the cheeks or tongue.
2. When saliva production diminishes, keep the mouth wet with a liberal intake of water. Experts advise drinking eight glasses of water a day for basic metabolic function, and it seems that keeping the mouth moist is a good way of keeping the bacterial flora of the mouth under control. Hold the water in the mouth as long as possible (minimum of twenty seconds), and swish it around to loosen food particles and other bits of debris that bacteria feed upon.
3. Snack on carrots, celery, or other vegetables to keep plaque from forming.
4. Vitamin C deficiency may be a cofactor for bad breath. Smokers especially should take regular supplements of vitamin C since the nicotine in the cigarettes destroys vitamin C. A better tactic is to stop smoking altogether for this and a myriad of other reasons!

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