# **BAD BREATH (HALITOSIS)**

### **BASICS**

#### **OVERVIEW**

• Offensive odor coming from the mouth; bad breath (halitosis)

#### SIGNALMENT/DESCRIPTION of ANIMAL

- Dog and cat
- Small breeds and short-nosed, flat-faced breeds (known as "brachycephalic breeds") are more prone to disease involving the mouth, because their teeth are closer together
- Older animals are more likely to have bad breath (halitosis) than are young animals

#### SIGNS/OBSERVED CHANGES in the ANIMAL

- · Bad breath or halitosis is a sign itself
- If due to oral disease, excessive salivation (known as "ptyalism"), with or without blood, may be seen; the animal may paw at the mouth; and lack of appetite (anorexia) may occur
- In most cases, no clinical signs other than actual odor are observed

### CAUSES

- Metabolic—diabetes mellitus ("sugar diabetes"), uremia (excess levels of urea and other nitrogenous waste products in the blood)
- Respiratory—inflammation of the nose or nasal passages (known as "rhinitis"); inflammation of the sinuses (known as "sinusitis"); cancer
- Gastrointestinal—enlargement of the esophagus (the tube going from the throat to the stomach; condition known as "megaesophagus"); cancer; foreign body
- Dermatologic—infection of the skin folds of the lips (known as "lip-fold pyoderma")
- Dietary—eating malodorous or offensive-smelling foodstuffs; eating feces or bowel movement (known as "coprophagy")
- Disease of the mouth—infection of the gums and supporting tissues of the teeth (known as "periodontal disease") and/or ulceration of the tissues of the mouth; inflammation of the throat or pharynx (known as "pharyngitis"); inflammation of the tonsils (known as "tonsillitis"); cancer; foreign bodies
- Trauma-electric-cord injury, open fractures, caustic agents
- Infectious—bacterial, fungal, viral
- Autoimmune diseases
- Diseases characterized by one or more masses or nodular lesions in the mouth containing a type of white-blood cell, called an eosinophil (known as "eosinophilic granuloma complex")

#### **RISK FACTORS**

• Small breeds and short-nosed, flat-faced breeds (known as "brachycephalic breeds") are more prone to disease involving the mouth, because their teeth are closer together; smaller animals live longer; and their owners tend to feed softer food

### TREATMENT

#### **HEALTH CARE**

- Once the specific cause of the bad breath (halitosis) is known, direct therapy at correcting the cause; it is possible that multiple causes may be involved (for example, the animal may have infection of the gums and supporting tissues of the teeth [periodontal disease] and have a foreign body or cancer present in the mouth)
- Dental disease—assessment of the mouth, performed under general anesthesia, with X-rays of the mouth (known as "intraoral radiographs") and treatment, including cleaning and polishing the teeth and extraction of teeth with greater than 50% loss of supporting tissues (gum and bone) around the teeth
- Cancer of the mouth—surgical debulking (removing as much of the tumor as possible) or removal; radiation therapy; other cancer therapies, based on type of cancer
- Foreign body—removal of foreign body (may require anesthesia)
- Dermatologic causes—treatment for infection of the folds of the lips may include antibiotics, antibacterial shampoos, and possible surgery to remove some of the folded tissue
- Dietary causes—prevent pet from eating malodorous foodstuffs (for example, keep pet away from garbage); prevent pet from eating bowel movement (for example, block off litter box so dog cannot get to cat feces; clean yard frequently)

### **MEDICATIONS**

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive.

- Medication is determined by the underlying cause of the bad breath (halitosis)
- Topical treatment with zinc-ascorbate cysteine gel usually reduces bad breath within 30 minutes of application, because of the effect of cysteine on sulfur compounds in the mouth
- Antibiotics are not indicated to treat bad breath (halitosis) without performing complete assessment and treatment of the mouth; antibiotics are indicated in the treatment of infection of the lip folds and for cases of rhinitis and/or sinusitis, if bacterial infection is involved
- Controlling the bacteria that cause infection of the gums and supporting tissues of the teeth (periodontal disease) helps control dental infections and accompanying bad breath
- Weekly application of OraVet<sup>TM</sup> (Merial), a plaque prevention gel has been shown to decrease plaque (the thin, "sticky" film that builds up on the teeth; composed of bacteria, white-blood cells, food particles, and components of saliva)
- The use of oral home-care products that contain metal ions, especially zinc, inhibits odor formation because of the affinity of the metal (zinc) ion to sulfur; zinc complexes with hydrogen sulfide to form insoluble zinc sulfide, decreasing the odor
- Chlorhexidine used as a rinse or paste also helps control plaque (the thin, "sticky" film that builds up on the teeth), decreasing eventual odor; many dental home-care products containing chlorhexidine are available commercially
- Zinc ascorbate plus amino acid (Maxi/Guard® Oral Cleansing Gel—Addison Biological Laboratory)
- DenTees<sup>TM</sup> (Dermapet®) neutralize odors and freshens breath

## **FOLLOW-UP CARE**

#### PATIENT MONITORING

• Periodic examinations to monitor results of dental professional and home care

#### PREVENTIONS AND AVOIDANCE

- Varies with underlying cause
- Daily brushing to remove plaque (the thin, "sticky" film that builds up on the teeth) and control dental disease and odor
- Prevent pet from eating malodorous foodstuffs (for example, keep pet away from garbage); prevent pet from eating bowel movement (for example, block off litter box so dog cannot get to cat feces; clean yard frequently)

### POSSIBLE COMPLICATIONS

Varies with underlying cause

#### **EXPECTED COURSE AND PROGNOSIS**

· Varies with underlying cause

### **KEY POINTS**

- Bad breath or halitosis is a sign; it is an offensive odor coming from the mouth
- Once the specific cause of the bad breath (halitosis) is known, direct therapy at correcting the underlying cause