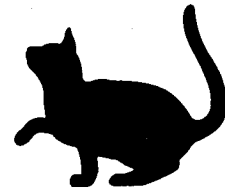


CATNIP®



A NEWSLETTER FOR CARING CAT OWNERS

MEDICINE

Mouth Care

Periodontal disease is the most common oral disease in cats. Indeed, periodontal disease is the most common disease of *any* kind in both dogs and cats. "It's also the most overlooked disease," notes Dr. Laura LeVan, a veterinarian with a special interest in dentistry who is on the staff at the Foster Hospital for Small Animals at Tufts University School of Veterinary Medicine. Observes Dr. LeVan, "Sometimes cats suffer with severe periodontal disease before anything is done about it."

Unfortunately, if left untreated, periodontal disease only gets worse, until eventually it undermines the general health of your cat. "The mouth is said to be the most biologically active area of the body," explains Dr. LeVan. Bacteria from a diseased mouth can affect various organs of the body and the nervous system. Investigators believe that certain diseases of feline old age, such as diseases of the kidneys and possibly some diseases of the heart and liver, can be attributed to untreated oral disease. And human medicine has taught us that healthy mouths can help us live longer. According to Dr. LeVan, "There's no reason to believe the same isn't also true for animals."

Owners, however, shouldn't think of mouth care as something to pay attention to only in their cat's later years. Studies show that most cats over the age of 2 years show signs of oral disease to some degree.

Inside

Mighty Hunter

Safe Play

Moving Indoors



VOL. 4, NO. 3,
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Whiff of a Problem

Since cats are not noted for their cooperation when it comes to mouth inspections, owners can easily miss the early stages of oral disease in their feline companions. There are, however, several signs that, although not exclusive to oral disease, should alert you to the need for a thorough and detailed veterinary examination of your cat's mouth. Bad breath (*halitosis*) is certainly one "red flag." Other

indications are when your cat rejects hard, crunchy food; avoids certain parts of its mouth when eating; paws at its mouth; or begins to drool. We recommend regular veterinary dental checkups as part of your cat's wellness program, which should also include routine physical checkups and booster "shots." Although oral disease is very common, the good news is that if it is treated early enough—with home brushing and professional prophylactic cleaning—you and your veterinarian can do much to reverse its effects.

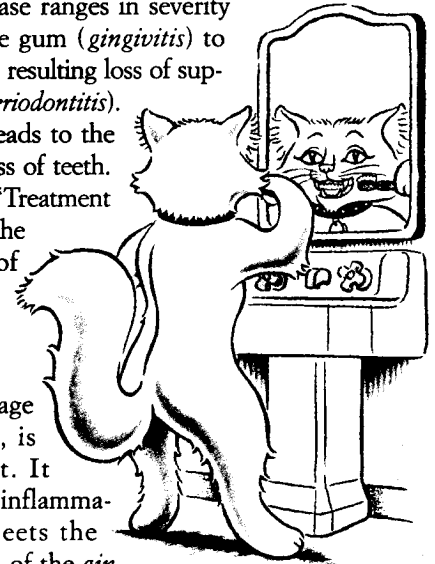
Periodontal Disease

Periodontal disease involves the tissue and structures that support the teeth—the gum (*gingiva*) and the bone (*alveolar bone*). The disease ranges in severity from inflammation of the gum (*gingivitis*) to ulceration of the gum and resulting loss of supporting bone structure (*periodontitis*). Advanced periodontitis leads to the loosening and eventual loss of teeth. According to Dr. LeVan, "Treatment of periodontal disease is the most important aspect of veterinary dentistry."

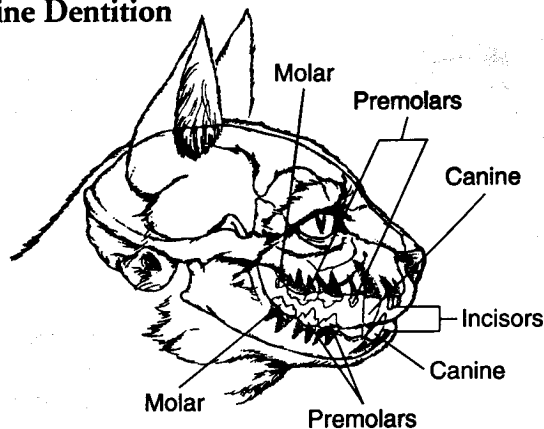
Gingivitis

Gingivitis, the early stage of periodontal disease, is relatively easy to spot. It appears as a red line of inflammation where the gum meets the tooth. This inflammation of the *gingival* (gum) tissue is caused by deposits of *plaque* that build up on the surface of the tooth beneath the gum tissue. Plaque, a combination of bacteria, food particles, and saliva, is constantly forming and hardening on the surface of the tooth. The high concentration of bacteria (80 percent) in plaque makes it an effective *pathological* (disease-causing) agent.

As plaque deposits build up, they harden into *calculus* (*tartar*) and enlarge the pocket (*sulcus*) between the tooth and the gum. This enlarged sulcus traps debris and creates a fertile environment for bacterial growth. *Saliva*, which normally washes out the sulcus, can no longer do its job effectively and clear out the sulcus. Multiplying



Feline Dentition



During its lifetime, a cat has two sets of teeth—a *deciduous* set and a *permanent* set. Deciduous teeth are those 26 needle-sharp “baby” or “milk” teeth that are replaced during the first 6 months of life with 30 permanent teeth—incisors (12), canines (4), premolars (10), and molars (4). Indeed, one way to tell a young cat’s approximate age is by looking in its mouth. Permanent incisors (the 12 small front teeth) usually appear around 4 months of age, and the permanent canines (the four front “fang” teeth) at around 6 months.

Become familiar with your cat’s dentition. If a cat retains deciduous teeth, such as deciduous canines, these teeth may displace the permanent canines. And too many teeth can lead to overcrowding, which can cause a cat’s teeth to rotate.

Too few teeth can also lead to dental problems. Although it is not unusual for a healthy cat to have an incomplete set of permanent teeth, an owner should find out whether a missing tooth is actually missing or whether the tooth was broken earlier and is now covered with gum tissue. Should that be the case, the broken buried tooth will eventually become infected and cause problems.

bacteria invade the gingival tissue. The gums become swollen and are liable to bleed when probed. Fortunately, at this early stage, the teeth have not lost their supporting bone structure. So if gingivitis is detected early and treated promptly, its effects are reversible.

Periodontitis

Periodontitis, the advanced stage of periodontal disease, occurs when bacteria, their waste products, and other toxins cause the gums to ulcerate. Over time, an

increasing buildup of calculus causes ever-deepening pockets to form around the teeth. Eventually, the alveolar bone begins to erode. Finally, erosion of the gingiva and alveolar bone advances to such a degree that the teeth no longer have anything to support them. They become loose and fall out. (These lost teeth are almost always healthy teeth.) Unfortunately, periodontitis is not reversible. But if treated early enough, it can be controlled.

What You Can Do

Plaque forms every 6 to 8 hours. And merely rinsing your cat’s mouth will not remove the buildup. To effectively remove plaque, you need to brush your cat’s teeth—preferably every day. While brushing takes discipline, it doesn’t take a lot of time—no more than 15 to 30 seconds. Admittedly, most cats do not clamor to have their teeth brushed, but most will tolerate it if you set up a routine, stick to it, treat brushing like a game, and always remember to reward your cat afterward. (See “Brushing: The Best ‘Medicine’” on p. 3.)

What Your Veterinarian Can Do

Your cat’s doctor is also your cat’s dentist. Your veterinarian should examine your cat’s gums and teeth at least once a year—more often if your cat needs it. (Some cats build up plaque faster than others.)

To catch problems early, it is essential that the owner and veterinarian work as a team. An observant owner may notice subtle changes in a cat’s mouth or behavior that he or she can bring to the veterinarian’s attention during a routine checkup. Alerted to potential trouble spots, the veterinarian can then schedule time for a detailed oral examination.

The Dental Visit

Given that cats are usually ready with “tooth and claw,” your veterinarian will need to give your cat a general anesthetic to carry out a thorough and detailed examination. (If your cat is older, don’t put off treating your feline senior citizen because you fear putting the venerable lady or gentleman “under.” Instead, talk with your veterinarian about the anesthetic protocol that is appropriate for your cat’s circumstances.)

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After first anesthetizing your cat, the veterinarian removes calculus and plaque from its teeth. The veterinarian may also scale the roots of the teeth, smoothing roughened root surfaces to make it more difficult for plaque to adhere (the equivalent of deep scaling in human dentistry). Next, the veterinarian mechanically polishes the teeth and roots, then flushes the sulcus because the feline patient is unable to "rinse thoroughly" for itself. The veterinarian then examines each individual tooth and records the findings. "It's like examining 30 patients," explains Dr.

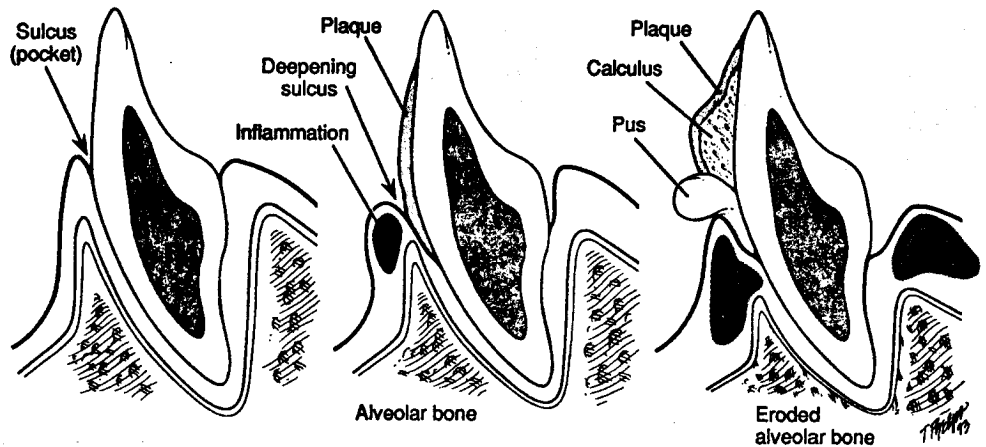
LeVan. "You look at every tooth and measure the pockets."

If any disease is evident, the veterinarian either deals with it immediately or plans future treatment. Finally, the veterinarian may apply a *fluoride* treatment. Fluoride provides four major dental benefits: it hinders the growth of bacteria; it desensitizes *dentin* and *pulp* (the sensitive layers beneath the tooth enamel); it hardens tooth enamel; and it helps minimize bone and tooth loss. However, only your veterinarian should apply fluoride. Fluoride treat-

ment, although beneficial when used judiciously, has a downside: too much fluoride can be toxic for cats.

Undeniably, feline dental care requires an investment of time and money. But consider the benefits. Caught early enough, periodontal disease is treatable. We know that daily home care slows down the buildup of plaque, which in turn slows down the progression of periodontal disease. We also know that regular oral hygiene makes cats feel better and possibly prolongs lives. □

The Progression of Periodontal Disease



1 HEALTHY

In the healthy feline gum, the sulcus should be one millimeter or less.

2 MODERATE DISEASE

As plaque builds up, the sulcus deepens and the gum becomes inflamed.

3 ADVANCED DISEASE

In advanced periodontal disease, the gum is severely infected. The alveolar bone erodes, leading to tooth loss.

Brushing: The Best "Medicine"

Given that owners can prevent the development of *gingivitis*—the early stage of periodontal disease—by brushing their cat's teeth daily, we make no apologies for reprinting the following advice on tooth brushing that we gave in *CATNIP*, Vol. 3, No. 8, November 1995.

WEEK 1: FUN TIME

Don't attempt to clean your cat's teeth yet. In the first week, just accustom your cat to your daily inspection of its teeth. Establish a routine. Every day at the same time, lift your cat onto a table or counter. Firmly holding the cat's head with one hand, pull back its lips and examine its teeth. Make sure you look at *all* the teeth—top and bottom. Rub your finger along the gums. During this inspection, reassure your cat. After the inspection, praise your cat, give it a favorite treat, or play with

it for a few moments. It's important to reward your cat at the end of each session so it associates daily dental care with a pleasurable experience.

Hint: Resort to bribery.

WEEK 2: PRACTICE MAKES PERFECT

Introduce your cat to the toothbrush (or a cotton swab). Every day at the same time, rub the toothbrush (the human variety is fine) or swab along your cat's gums just as you did with your finger during the first week. Let your cat rub its whiskers along the toothbrush bristles. (Many cats will do this without prompting.) Try dipping the toothbrush in tunafish-flavored water. At the end of each session, tell your cat how swell it is and reward it with its favorite treat or toy.

Hint: Don't rush. Let your cat think it's his or her idea.

WEEK 3: THE REAL THING

Introduce toothpaste. Use a reputable brand of *feline*—not human—toothpaste. Human toothpaste contains agents that are harmful to cats if they ingest them. Detergent, for instance, a foaming agent in human toothpaste, is an irritant that can cause gastric problems in cats.

Contrary to popular belief, salt and baking soda are *not* effective plaque removers. What's more, these compounds contain *sodium*—which is potentially dangerous to older cats with heart disease. Once you have established a tooth-brushing routine, do the same thing at the same time every day.

Hint: Reward yourself as well as your cat!