

Brookville Road Animal Hospital

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Home Care Instructions

- Please see attached information regarding feline dental disease and home care. Monitor for signs of oral and dental disease, including changes in appetite or eating habits, difficulty eating or swallowing, increased salivation, blood-tinged saliva, strong odor from the mouth, or signs of oral discomfort (rubbing at face, resistance to being touched around mouth.)
- If he/she is not interested in dry food, it is ok to soften the food with water, or offer canned food for the first several days.
- Dental chews, such as Feline Greenies, may help reduce tartar build-up. These should be given daily (1 calorie per treat.)
- Expect a small amount of bleeding from the mouth over the next few days. This is normal, especially after eating and drinking.
- He/she may be somewhat sleepy tonight due to the anesthesia, and pain medication (buprenex) administered tonight.

THE DENTAL CARE SERIES

By Jan Bellows D.V.M. DipAVDC

All Pets Dental Clinic

A Guide to Feline Dental Care

Feline dental care is perhaps the most overlooked and under-treated area in small animal medicine. Cats are affected by many of the same dental problems that affect dogs (periodontal disease, fractured teeth, and oral masses) in addition to special syndromes like tooth resorption and oropharyngeal inflammation.

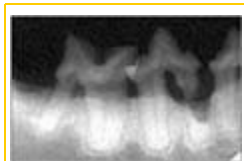
More than 50 percent of cats over three years old will be affected by tooth resorption (TR). These tooth defects have also been called cavities, neck lesions, external or internal root resorptions, or cervical line erosions. Teeth affected by lesions will erode and finally disappear when they are absorbed back into the cat's body. The root structure breaks down; then the enamel and most of the tooth become ruined, and bone replaces the tooth. This most commonly happens where the gum meets the tooth surface. Molars are most commonly affected; however, tooth resorptions can be found on any tooth. The reason for the resorption is unknown, but theories supporting an autoimmune response have been proposed.

Cats affected with tooth resorption may show excessive salivation, bleeding in the mouth, or have difficulty eating. Tooth resorptions can be quite painful. A majority of affected cats do not show obvious clinical signs. Most times it is up to the clinician to diagnose the lesions upon oral examination. Diagnostic aids include a probe or cotton tipped applicator applied to the suspected resorption; when the probe touches the lesion, it causes pain and jaw spasms. Radiographs are helpful in making definitive diagnosis and treatment planning.



Tooth resorptions can be seen in many stages:

- Stage 1 (TR 1): Mild dental hard tissue loss.
- Stage 2 (TR 2): Moderate dental hard tissue loss.
- Stage 3 (TR 3): Deep dental hard tissue loss; most of the tooth retains its integrity.
- Stage 4 (TR 4): Extensive dental hard tissue loss; most of the tooth has lost its integrity. (a) Crown and root are equally affected; (b) Crown is more severely affected than the root; (c) Root is more severely affected than the crown.
- Stage 5 (TR 5): Remnants of dental hard tissue are visible only as irregular radiopacities, and has completely covered the gum.



Tooth resorption can be seen in x-rays. Photo courtesy of Dr. Jan Bellows

Radiographic appearances of the resorptions vary, however all stages can be seen on x-rays by your veterinarian. If the periodontal ligament is visible, the tooth should be extracted via flap exposure. If the periodontal ligament is not visible, crown reduction and gingival closure can be performed.

Cats can also be affected by oropharyngeal inflammation, an inflammatory condition. The cause of this disease has not been determined but an immune-related cause is suspected. Signs in an affected cat include difficulty swallowing, weight loss, and excessive saliva. An oral examination will show many abnormalities. X-rays often reveal moderate to severe periodontal disease with

bone loss.

Managing a case of oropharyngeal inflammation can be challenging. Oftentimes attempts at conservative therapy are not affective, nor is medical care. Extracting specific teeth resolves the syndrome in 60 percent of the cases. Twenty percent require medication, typically prednisone, while the other 20 percent respond poorly. A carbon dioxide laser has also been used with some success.

Cats are also affected by cancer in their mouths. Squamous cell carcinoma is the most common type of oral cancer. Less common feline oral malignancies include melanoma, fibrosarcoma, lymphosarcoma, and undifferentiated carcinomas.

Not all feline oral swellings are malignant. Cats are frequently affected by reactions to foreign bodies, problems from dental disease, tumor-like masses, infections, and growths in the nose or throat. Biopsies are essential for diagnosis.

In summary, cats are affected by many painful oral and dental conditions from tooth resorptions and inflammatory conditions to cancer. This is why it is important to work with your veterinarian to provide the best care possible with routine oral exams.

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THE PET HEALTH LIBRARY

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Dental Home Care

“Perio” means around, “dental” means tooth: Periodontal disease is disease around the outside of the tooth.

The Tooth, the Whole Tooth and Nothing but the Tooth

In this picture we see the crown of the tooth (the part we see when looking in the mouth), the root of the tooth (the part we do not see), and the attachment of the tooth to the bone. The tooth sits in a socket and is held there by periodontal ligaments. The tooth receives nutrients from blood vessels inside the pulp chamber of the tooth. Periodontal disease takes place inside the socket in which the tooth is seated.

Out of all the members of one’s family, the chances are it will not be difficult to guess who has the worst dental hygiene: the pets. They do not brush their teeth, nor do they floss, and this goes on for years. If you are ever curious as to what happens if teeth go for years without brushing (or you want to show your children what will become of their teeth should they fail to brush regularly), you have only to look at your pet’s teeth and smell your pet’s breath.

A full 85% of pets have periodontal disease by age 3 years.

This should not be surprising since there is little difference physically between the dog or cat’s tooth and the human tooth. We all have a set of baby teeth that come in and fall out to make way for adult teeth. We all have nerves and blood vessels in our teeth surrounded by dentin, surrounded in turn by a hard coat of enamel. The enamel is bathed in saliva and quickly is covered by plaque, which is bacteria mixed with saliva. If we do not regularly disinfect our mouths and brush away the plaque, the plaque will mineralize into tartar (also called calculus – gritty material that the dental hygienist scrapes away). Tartar, being solid and gritty, blocks oxygen from bathing the outer tooth and thus changes the nature of the bacteria that can live around the tooth. The bacteria that can withstand the oxygen-poor environment (anaerobic bacteria) are more harmful to the bone and tissues of the gum. The periodontal ligament becomes damaged, the bone around the tooth is literally eaten away, and the gums become sensitive. Eventually the tooth is lost and, if the bone damage is severe enough, the jaw can break. Worse still, the bacteria of the mouth can seed other areas in the body, leading to infection in the heart, liver, kidney or virtually anywhere the bloodstream carries them.

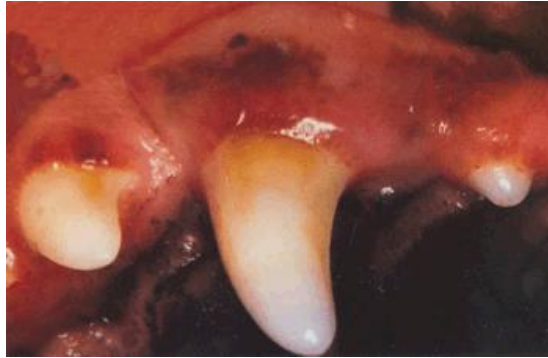


The first picture shows a normal mouth. The teeth are clean and white and there is no redness or swelling in the surrounding gums. In the second picture, the gum with gingivitis is clearly red and swollen; there is also yellowish brown tartar extending down the length of the tooth. The third picture shows the third stage of periodontal disease where up to 50% of the bone attachment is lost. Notice the exposure of the tooth roots.

Gingivitis is reversible. Bone loss, once it starts, is not reversible.

It is a good idea to become comfortable opening your pet’s mouth and looking inside. Lift the lip and look at the teeth, especially the back teeth. Open the mouth and look at the inside of the teeth and at

the tongue. If you have pets of different ages, compare what you see inside.



Look in your pet's mouth and identify the line of gingival attachment. Approximately 70% of the tooth should be under the gum line.

Regular Professional Cleaning

It should not be surprising that dental health requires periodic professional cleaning regardless of whether the mouth in question belongs to a person, a dog, a cat, a horse, or some other animal. Home care of the tooth is never perfect and periodically tartar must be properly removed and the tooth surface properly polished and disinfected. The professional cleaning performed at the veterinarian's office is similar to what a person receives at their dentist's office:



- Gross (visible) tartar is removed with instruments.
- More delicate tartar deposits are removed from the gum line with different instruments.
- Periodontal sockets are probed and measured to assess periodontal disease.
- The roots are planed (meaning tartar is scraped from below the gum line) until the roots are smooth again.
- The enamel is polished to remove any unevenness left by tartar removal.
- The mouth is disinfected and possibly treated with a fluoride sealer or plaque repellent.
- Professional notes are taken on a dental chart, noting abnormalities on each of the dog's 42 teeth or the cat's 30 teeth.

It is important to note that a "non-anesthetic" teeth cleaning is not comparable to the above service.

It is not possible to perform the six step cleaning in a pet without general anesthesia.

Cosmetic cleanings do not address periodontal disease where it occurs: under the gum line.

Home Care Products

Toothpaste and Brushing

Just as with your own teeth, nothing beats brushing. The fibers of the toothbrush are able to reach between teeth and under gums to pick out tiny deposits of food. A toothbrush acts as a tiny scrub brush for the closest possible cleaning.

Notice the shape of the canine and feline brushes and how they conform to a pet's mouth. You can use a human toothbrush but you will probably find it difficult to manipulate in the pet's mouth. Never use a human toothpaste for a pet as these contain sudsing agents (people like to see foam when they brush their teeth) that are not meant to be swallowed in quantity. Animal toothpastes come in pet-preferred flavors (chicken, seafood, and malt) in addition to the more human-appreciated mint. All are expected to be swallowed.

Finger brushes are available and are smaller for puppies and kittens.

Studies have shown that brushing three times a week was adequate to maintain healthy teeth and gums but daily brushing was needed to control existing gingivitis.

Do's and Don'ts of Brushing Your Pet's Teeth

Don't use human toothpaste on your pet.

Do use a toothbrush without any paste at first so that your pet may get used to the object in the mouth before having to contend with flavor.

Don't attempt to clean the inner surface of your pet's teeth. Natural saliva cleans this surface on its own.

Do try to perform dental home care at least once daily.

Don't perform dental home care during the first week after a full dentistry in the hospital as your pet's gums may be tender.

Don't consider dental home care as an alternative to full dental cleaning if your pet has more advanced dental disease.

Dental Wipes, Rinses and Pads

Some animals, especially those with tender gums, will not tolerate brushing but are more amenable to disinfecting wipes or pads. These products will wipe off plaque deposits from the surface of the tooth and, though they lack the ability to pick food particles out of the gum socket, they are probably the next best thing to brushing and, like brushing, these products are best used daily.

OraVet

This product addresses the convenience factor of pet dental care. Doing anything in a pet's mouth daily year after year is a difficult habit for most people to establish. We have enough trouble taking care of our own teeth. Oravet is a wax-like substance applied once a week to the outer surface of the teeth with a swab (though it can be used even daily for pets with particularly bad gingivitis). Oravet prevents plaque from attaching to the tooth and provides a helpful mode of dental care on an easy to follow schedule.

Dental Treats

For many people, doing anything inside their pet's mouth on a regular basis is simply never going to happen. Fortunately, all is not lost: chewing on a proper dental chew can reduce plaque by up to 69%. This may not be as good as brushing but it certainly beats doing nothing. There are many products available for both dogs and cats. How often does the pet need to chew? One study using the Pedigree

Dentabone showed excellent results but dogs were provided with a chew bone six days a week. Many dogs are not as interested in chewing.

Not all chews are alike. Chewing provides abrasion against the tooth removing plaque and tartar. Some chews and biscuits include the ingredient hexametaphosphate, which prevents the mineralization of plaque into tartar. (In one study, two such biscuits daily removed 46% of tartar in time.) The Forte feline chews were found effective in reducing plaque and tartar but cats had to eat one chew daily to achieve benefit.

Greenies

This particularly popular chew treat has generated some recent controversy and deserves some special mention. The Greenie is a green chew treat for dogs, found effective in removing plaque and is generally found highly palatable to dogs. Original Greenies were made with wheat gluten that dissolved slowly in the stomach. Some pets swallowed large chunks of a Greenie, the Greenie failed to dissolve in the stomach and intestinal obstruction resulted. Some deaths were reported. Since then, the Greenie has been reformulated using soy instead of wheat. The new Greenie is actually flexible and its manufacturer feels past problems have been resolved. The new formulation came out mid-2006 and is available in both canine and feline treats. Both are approved by the Veterinary Oral Health Council, a group that awards its seal of approval to treats and diets showing scientific evidence of plaque and tartar retardation. See a list of the [VOHC's approved products](#).

Use your judgment with chew toys.

A chew can be readily swallowed in a large chunk and lead to intestinal obstruction.

A pet with diseased teeth may break teeth on a hard chew.

COW HOOVES AND BONES ARE NOT APPROPRIATE CHEW TOYS AS THEY ARE TOO HARD AND READILY BREAK TEETH.

Pig ears are well loved by most dogs but have been known to have bacterial contamination. Dogs with sensitive stomachs often do not tolerate the smoky flavor. No studies have been performed regarding prevention of dental disease using pig ear chews.

Dental Diets

There is a common misconception that simply feeding a kibbled diet will protect the teeth from dental disease. Consider what it would be like to attempt to replace brushing your own teeth with eating crunchy foods and it is easily see how ineffective this method would be. When it comes to pet foods, much of the kibble is swallowed whole and not chewed at all.

Clearly, there must be more to a dental diet than simple kibbling and in fact there is. Dental diets on the market today use several techniques to help reduce plaque. The first is that the kibbles are large, which means the pet must chew them before swallowing them. These diets are high in fiber, which means the kibbles do not shatter when chewed but instead the tooth sinks into the kibble, allowing plaque to be essentially scrubbed away. The large kibbles may pose an acceptance problem for the pet leading the owner to use them as treats or mixed with other kibbles. The smaller the percentage of the diet these kibbles represent, the less benefit will be reaped. It is also important to realize that these diets are helpful only in cleaning the molars and premolars (i.e. the chewing teeth) and do not help the fangs or incisors.

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