

# The Importance of Feline Oral Health

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Proceedings from a seminar conducted at the 2007 Central Veterinary Conference. The CE accredited seminar is available online at [www.vet.greenies.com](http://www.vet.greenies.com).

In a recent health status survey of more than 31,000 dogs and 15,000 cats examined at US veterinary clinics, the most commonly reported disorders were dental calculus and gingivitis.<sup>1</sup> Yet according to the 2003 AAHA compliance study *The Path to High-Quality Care*, only 35% of dogs and cats with Grade 2 or higher periodontal disease receive treatment, and only 15% of those with Grade 1 disease receive treatment. Since periodontal disease is often preventable, veterinarians have an excellent opportunity to educate clients and improve wellness care for cats by developing an oral healthcare program.

Many common oral diseases, such as feline odontoclastic resorptive lesions (FORLs), are painful and impair quality of life. Since periodontal disease develops gradually, the cat adapts to the pain and the owner may misinterpret changes as simply "old age." Often the impact of dental disease is not evident until the owner notices dramatic improvement after treatment.

Human dentistry is increasingly recognizing the potential systemic risks associated with periodontal disease such as cardiovascular disease and bacterial pneumonia. People with diabetes mellitus are 15 times more likely to have tooth loss than those without diabetes.

The increased risk appears to be due to several factors, including an impaired host defense against bacterial infection. Cats with diabetes mellitus often have periodontal disease; the management plan for a cat with poor glycemic control must include managing periodontal disease.

The majority of periodontal pathogens are gram-negative bacteria. In addition to local inflammatory response causing periodontitis, systemic bacteremia or endotoxemia with elaboration of inflammatory mediators may occur. Target organs that may sustain damage include the liver, kidneys and lungs. While little research has been conducted in the cat, evidence from other species, particularly humans and dogs, would appear to validate concerns.<sup>2</sup>

Oral disease may also be a marker for more serious systemic disease in cats. In a 2006 nationwide study conducted by IDEXX Laboratories of 8,982 cats with oral disease, 14.2% were retrovirus positive, much higher than the general population rate of about 3%.<sup>3</sup> Knowing the cat's retrovirus status is essential for optimal assessment, wellness management and treatment.



# Oral Assessment, Treatment and Prevention for Cats

## Assessment

All cats should receive an oral exam as part of annual wellness care. A good oral exam includes the gingiva, the area between the gums and the cheek, palatal and lingual surfaces of the mouth, dorsal and ventral surfaces of the tongue, and the visible pharynx. The sublingual space warrants special attention as it is a common site for neoplasia, particularly squamous cell carcinoma. Local lymph nodes should be palpated for enlargement, and the maxilla and mandible should be palpated for swellings or pain. Examine the cat for occlusal abnormalities before opening the mouth, particularly in brachycephalic or dolicocephalic breeds.

All the teeth—30 in the adult cat, 26 in kittens—should be visually assessed. Sedation may be necessary to permit a full oral exam, either due to the cat's nature or because of oral pain. Since feline oral exams can be challenging, take advantage of any opportunity to examine a cat when it is sedated or anesthetized for another procedure. The owner should be asked about the cat's diet including treats and about signs of oral disease, such as drooling, blood-tinged saliva, dropping food or difficulty chewing. Unfortunately, oral disease may be well advanced before the owner notes changes in the cat's behavior or appetite.

A preliminary assessment of oral health is made in the exam room, but a more thorough assessment and charting is performed under anesthesia, along with radiographs. Radiography is very useful for diagnosis of FORLs and periodontitis.<sup>4</sup> In one study of 115 cats referred for dental treatment, radiography provided additional clinically useful information in 86% of the patients.<sup>5</sup>

Cats are prone to several oral problems requiring assessment and treatment. FORLs and chronic gingivostomatitis are the most commonly found oral problems.

## Treatment

A comprehensive treatment plan should be followed for each patient and performed under anesthesia. Cleaning only the coronal surfaces without anesthesia is fraught with risks, including gingival damage, pain and anxiety, increased plaque retention due to scratched enamel surfaces and failure to diagnose less obvious problems, and gives owners a false impression that the cat's mouth is now healthy. The general steps in a comprehensive treatment plan may be found in the online webinar and notes.



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Follow-up evaluation ensures continued good oral health in felines. Cats with a healthy mouth should have an oral exam every year. Cats with gingivitis or mild-to-moderate periodontal disease should be examined every six months; patients with more severe oral disease will benefit from re-evaluation at least every three months. Frequent evaluations allow for assessing client compliance and for revising the treatment plan.

### *Prevention*

Home care is a vital component of oral health and may consist of tooth brushing, oral rinses or gels and dental diets and treats.

Clients must understand that home care is intended to prevent gingivitis and periodontal disease; it does not treat oral disease. In fact, implementing home care when a cat's mouth is diseased and painful causes more harm than good.

Kitten wellness visits are an ideal time to explain and initiate oral home care, and to improve client compliance. It is easier for clients to learn teeth-brushing techniques while a cat is young and has good oral health. In young kittens, oral healthcare may simply consist of rubbing the cheek teeth with a soft cloth, mainly to accustom the kitten to having its mouth handled. Once the permanent dentition has erupted, tooth brushing with a dentifrice can be started.

Daily brushing of teeth is the most effective means of plaque control. This may be more challenging in the cat, but even brushing twice weekly will be beneficial. It is important that clients understand that while home care is very important, it does not replace regular professional oral examinations and treatment.


Many devices remove plaque, such as cat toothbrushes, gauze pads and finger toothbrushes. Owners should be encouraged to try more than one device to find the one that works best. While the mechanical effect of brushing removes plaque, a veterinary dentifrice can help improve compliance if the cat likes the flavor. Oral rinses or gels may be useful adjunct products as oral antiseptics after dental treatment and as plaque retardants.

There is some evidence that soft food diets are associated with increased frequency and severity of periodontal disease in cats and dogs.<sup>6</sup> This represents a considerable dilemma, since dry feline diets high in carbohydrates are linked to obesity and diabetes mellitus. However, cats can develop significant dental disease even when exclusively fed dry diets as the small kibble size does not offer much opportunity for chewing, and many cats swallow the pieces whole.

A number of dry diets are now marketed as "dental diets." These reduce plaque and calculus through a high-fiber matrix that removes plaque from teeth by abrasion. Individual kibbles are usually larger in size than non-dental diets, requiring the cat to chew each piece. Each kibble is less brittle and less prone to shatter into small pieces, thereby requiring more chewing. Some dental diets have coatings that inhibit mineralization of plaque by binding it to salivary calcium.



A comprehensive treatment plan should be followed for every patient.



Chew treats are intended to improve oral hygiene by their mildly abrasive action. They cannot replace tooth brushing, but are a valuable addition to a home oral care program.

There are a number of ways to improve client compliance with oral healthcare plans. The online webinar and notes provide effective steps to improve client compliance with oral healthcare, both in clinic and at home.

## Summary

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Veterinarians should educate cat owners about the importance of oral care as part of an overall wellness program. Many cats will need a dental treatment on a yearly basis; some more often. Good oral health brings substantial benefits, such as fresh breath, improved overall health, improved quality of life and even prolonged longevity.

### The CE accredited webinar

***The Importance of Feline Oral Health*** and complete notes are available free of charge to veterinarians and staff online at [www.vet.greenies.com](http://www.vet.greenies.com).



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## References

- 1 Lund, E., P. Armstrong, et al. (1999). "Health status and population characteristics of dogs and cats examined at private veterinary practices in the United States." *J Amer Vet Med Assoc* 214(9): 1336-1341.
- 2 DeBowes, L. J., D. Mosier, et al. (1996). "Association of periodontal disease and histologic lesions in multiple organs from 45 dogs." *J Vet Dent* 13(2): 57-60.
- 3 Levy, J., H. Scott, et al. (2006). "Seroprevalence of feline leukemia virus and feline immunodeficiency virus infection among cats in North America and risk factors for seropositivity." *J Amer Vet Med Assoc* 228(3): 371-376.
- 4 Lommer, M. J. and F. J. Verstraete (2001). "Radiographic patterns of periodontitis in cats: 147 cases (1998-1999)." *J Am Vet Med Assoc* 218(2): 230-4.
- 5 Verstraete, F. J., P. H. Kass, et al. (1998). "Diagnostic value of full-mouth radiography in cats." *Am J Vet Res* 59(6): 692-5.
- 6 Gawor, J. P., A. M. Reiter, et al. (2006). "Influence of diet on oral health in cats and dogs." *J Nutr* 136(7 Suppl): 2021S-2023S.