Dental Homecare: 
Products, Client Education, and Techniques 
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The home care oral hygiene program for dogs and cats should begin as soon as the adult teeth have erupted, otherwise, the program should begin directly after professional care has been provided. The burden of caring for the teeth shifts to the owner after a professional dental prophylactic procedure has been performed. Commitment and compliance will be greatly improved when the veterinary staff guides and supports the owner’s efforts by explaining and demonstrating how to brush the animal’s teeth and by scheduling recall appointments. Educating owners on proper care for their pet's teeth is desirable during the exit consultation following routine professional dental care. During this exit consult, the doctor or technician describes the oral health status of the patient, and makes suggestions regarding the frequency and techniques for home delivery of dental hygiene. The exit consult is also an excellent time to discuss useful products, diets, oral treats, gingival exercise and an appropriate interval for scheduling future professional dental care appointments. It is best to speak directly with the person who will be responsible for the home care, rather than relying on other family members to pass on the clinic’s instructions to the primary caretaker. The hallmark of home care is brushing the teeth.1-3 

Caring for pet’s teeth at home 
Clients who do not accept your home care recommendations will likely give their pet no care. Clients must realize that there is no panacea to replace tooth brushing. To keep the teeth most healthy and plaque-free, clients must use a toothbrush and use it effectively. Periodontal disease will occur or progress if steps are not taken to prevent it. When a client asks which teeth are the most important to brush, the appropriate answer is “All of the teeth.” If an owner would rather not accept the responsibility of home care, then s/he should be encouraged to schedule more frequent prophylaxis appointments for their pet so its oral health can be properly maintained. 

Many young dogs or cats, especially hypersalivaters, will have gingivitis and calculus deposits before they are one year old. Almost all pets will benefit by professional preventive care by the time they reach two or three years of age. Healthy teeth and gums can usually be maintained by brushing three times a week. Once periodontal disease has developed and the epithelial attachment at the base of the gingival sulcus is lost, daily brushing is required to keep the condition in check. Use of such tools as a WaterPik (Teledyne) can be very helpful with compliant pets. Most owners fail to maintain a daily tooth brushing schedule on a long-term basis, so professional prevention of periodontal disease is the real key to long-term oral health. 

Not all pet owners are willing, or can afford, annual professional dental care and the majority, it has been shown19, will not effectively brush their pet’s teeth even for 6 months. To provide the best oral health care, it is valuable to construct a multi-level oral health care program; the more levels in compliance, the better the care. Most effective programs contain all of the following: 

- Annual or semi-annual professional dental care with general anesthesia
- Tooth brushing at least 3 times a week
- Feeding a dental-friendly diet
- Providing dental-appropriate treats
- Adding products to the drinking water or providing surface treatments on the teeth that delays plaque deposition
- Providing dental-friendly chewables for gingival exercise

VOHC seal of acceptance 
Many dental products have preposterous dental claims on their packaging, completely unregulated. Companies that are proud of their product an willing to put their money where their mouth is, can subject their product to a regulated double-blind study to show that their product does what they say it does, does it safely, and performs at least 15% better than control products. If satisfied, the Veterinary Oral Health Council (VOHC) will award the product a Seal of Acceptance which they can display on the product’s packaging. Pet diets, dentifrices, chews and treats have been awarded the seal. There are also some good products that have not been subjected to this process. A list of the accepted products can be accessed at www.vohc.org

Available dentifrices 
The goal is to remove plaque from the tooth surfaces and the gingival sulcus before it mineralizes into calculus, a process that can occur within one week. There are many dental products - pastes, gels, sprays, solutions, powders and surface treatments - available for veterinary patients. The following comments and observations reflect the author’s experience. 

Many dentifrices contain calcium and silicates as their abrasive ingredients. For example, a major ingredient in C.E.T.® Toothpaste (Virbac) is calcium carbonate. Another example is Pet Dent™ tooth powder (Schering), which contains dicalcium phosphate. Oxygenating the fundus of periodontal defects antagonizes the growth of anaerobic bacteria that contribute to periodontal
Teaching pets to tolerate tooth brushing

If a client has never provided pet home dental care, instruction must be given. In general, dogs will be easier to work with than cats, but, both species can become accustomed to the routine. It is most important to brush the buccal surface, especially in the area of the gingival crevice, because much of the plaque is located there. The gingival crevice is the most important area to brush. The brush is moved forward and backward, parallel to the gum line with the bristles in the gingival sulcus. The mechanical aspect and the frequency of the brushing are the most important factors in removing plaque.\textsuperscript{16} The animal’s head usually moves up and down during the brushing process, resulting in the traditional oval-brushing pattern recommended by dentists. Owners should be advised that their pets, like all dental patients, additionally need periodic professional dental care. The frequency of professional care will be dictated by the quality of home care delivered and the current status of the pet’s periodontal health. Cats present unique problems because many will not permit their teeth to be brushed. Owners, however, often find that patience and a gentle approach will help, and many cats will be compliant. Because of the smallness of cats, we generally rely on the cat’s rough tongue to distribute excess dentifrice to the lingual and palatal surfaces of the teeth. Many factors determine the appropriate interval between prophylaxis appointments. The office can provide pamphlets and visual aids to reinforce in-clinic demonstrations and to provide information on proper nutrition and oral home care. Most clients appreciate “check-up visits” to critique their home efforts, and the recall interval can then be appropriately adjusted. Once periodontal disease occurs, more frequent professional and home care is required to maintain adequate oral health. Generally, the owner recognizes the return of halitosis, gingivitis and calculus, and will agree to schedule for more frequent professional dental care. More than other patients, senior animals require periodic dental care to reduce the stress of chronic oral infection from compromising their overall health. Clients need reassurance that skilled personnel will be monitoring anesthetic safety during procedure, so they will have the confidence to schedule for the indicated professional care. The client should be provided with information regarding the safety of the newer anesthetic agents. Clients will be comforted when informed that the clinic is providing electronic monitoring with pulse oximetry, blood pressure, CO\textsubscript{2} and respiratory parameters, and when intravenous fluids and circulating warm water pads, or other warming devices, are being employed to provide a safer medical environment.

Dietary considerations

Improved nutrition is one of the reasons pets are living longer. One of the best ways owners can contribute to the well being of their pets is to buy the best food they can afford. Carnivores do not chew their food. Most of their teeth are designed for puncturing, grasping, tearing, and shearing the meat from a carcass before briefly crushing it with their molars and swallowing. Dry foods are best
for the teeth because they are abrasive, which helps remove plaque from the crowns of the teeth, and because they are less likely than canned foods to become packed in the gingival crevices. The Science Diet products, Canine and Feline t/d® and Oral Care® (Hills Pet Nutrition, Inc.) are excellent in that the fibers are arranged more parallel than many of the dry foods, and the kibble is larger, forcing the teeth to penetrate the kibble rather than shattering it, thus providing additional abrasion to help keep the teeth cleaner above the gumline. Iams® and their Eukanuba line have the “Dental Defense”, a chemical coating on the kibble of all but their puppy and kitten dry foods. The Iams kibble “coating” is activated by the saliva in the mouth and delays plaque formation significantly. Today, Purina and Friskies diets are also marketed as dental-friendly and have also been accepted by the respected Veterinary Oral Health Council (VOHC) www.vohc.org. Semi-moist foods are most likely to adhere to the interproximal areas of the incisors or to be trapped between crowded and rotated premolars.

**Hard treats**

Hard treats are good, but mostly clean only the crown of the tooth. Even though the benefit is brief, it does help by providing abrasion to the supragingival tooth surface. Greenies (S & M Nutec), Cheweez® (Friskies®), Beefhide Treats (Hartz®), Flavor Infused Oral Chews, and Tartar Check® (Del Monte), Brushing Chews for Dogs (Milk Bone Dog Bisquits have all been approved by the Veterinary Oral Health Council.

**Chewing exercises**

The goal is to recreate the natural carnivore oral behavior as it hunts its prey, kills it, tears the skin and meat from the carcass, and devours it, often bones and all. Bone chewing can cause gastrointestinal problems in domestic pets. Chewing on bones or other objects harder than the teeth can also traumatize teeth in dogs and cats. A pink, purple, gray, or tan tooth is a dead tooth, a condition often caused by chewing on objects harder than the teeth. Soft Rawhide Chews (Tartar Shield®-Therametric Tecnologies), Dental Chewz™ (Purina Veterinary Diets®), Cheweez® (Friskies®), and others, are VOHC accepted. It is safer for dogs to chew on items softer than the teeth. Hard rubber toys such as large high-impact rubber balls of the CET®-5 Dental Exerciser™ (Virbac) or knotted rope products are examples of items less likely to injure teeth or gums. It is wise to advise pet owners that a dog can get into trouble with any chewable item, if the wrong size is chosen or a pet is not monitored. Digestible items do sometimes cause blockages and gastro-intestinal upset.

**Scheduling appointments for professional dental care**

The level of the animal's oral health, combined with the owner's willingness and ability to provide adequate preventive home dental care for their pet, should be periodically monitored and charted in the veterinary office. The strength of a successful dental prophylactic program comes from frequent and good home care and a supportive recall system to ensure that the pet receives periodic professional care appropriate to its current oral health and the level of home care provided.

**Conclusion**

The above information is intended to provide a practical overview of the methodology employed to administer dental home care for dogs and cats. In recent years, many articles on the effectiveness of home care and products have been published in the Journal of Veterinary dentistry alone, attesting to the additional dental care support that can be achieved through home care efforts. An animal with a healthy oral cavity will eat better, have better breath, enjoy better overall health and temperament, and be more acceptable in its home. Maintaining good oral health in a dog or cat can best be accomplished by providing both periodic professional care and judicious home care.

References available from author: Dog2thdoc@gmail.com