

Home Dental Care - You CAN Help Save Those Teeth!

Susan E. Anderson, D.V.M.

Diplomate, American Board of Veterinary Practitioners

Certified in Canine and Feline Practice

Clinical Assistant Professor, Outpatient Medicine

University of Florida College of Veterinary Medicine

Presented at the University of Florida College of Veterinary Medicine 8th Annual Dog Owners & Breeders Symposium on July 31, 2004. Courtesy of the AKC's Canine Health Foundation.

Periodontal disease is the most common problem of dogs and cats seen by veterinarians with more than 85% of dogs over 3 years of age being diagnosed. Periodontal disease is inflammation of the periodontium caused by plaque. The periodontium consists of the gingiva, the alveolar bone, the periodontal ligament and the cementum. Plaque is the biofilm composed of bacteria, saliva, proteins, oral debris and cells. After 24 hours, plaque becomes mineralized and turns into calculus (tartar). Then as more plaque deposits, it also mineralizes, creating layer upon layer of buildup. Continual inflammation stimulated by the trapped bacteria causes progressive destruction of the periodontium leading to tissue loss, bone loss and eventually tooth loss.

Tooth brushing is the gold standard of home dental care. It is still the most effective means of controlling plaque and periodontal disease. The ideal is daily brushing although brushing 3 times per week still has definite benefits. Your dog will also require periodic professional periodontal therapy by your veterinarian (scaling, polishing, curettage and possibly extractions), however, the benefits of professional cleaning are shorter lived without effective homecare. There are many toothbrushes to choose from. It is important to choose one with soft bristles of a size that will fit the patient's mouth in addition to being comfortable for the "brusher." The brush should be held at a 45° angle to the gum line and moved in small circular motions concentrating primarily on the outside surfaces of the teeth. A rubber finger brush or gauze wrapped over the finger may be useful in the initial training period but will not clean as well as a brush.

Start training your dog to have its teeth brushed as early as possible – puppy hood is best but it is never too late. Go slowly and gently using rewards and positive reinforcement like a special treat, a walk, playtime and /or a special toy. A flavored veterinary toothpaste or low sodium chicken/beef broth can be used to make the brush more acceptable. Avoid human toothpaste as the fluoride content can be toxic (dogs don't spit) and the foaming agents can cause vomiting. Baking soda should not be used either because too much sodium when swallowed can be detrimental especially in heart or kidney patients.

There are other adjunctive products that can enhance oral care but will not replace brushing. These include diets, treats, chews, toys, rinses and gels. Look for products awarded the Veterinary Oral Health Council (VOHC) Seal of Acceptance that identifies

products that have met a pre-set standard for prevention of accumulation of plaque and tartar (calculus).

Dental diets include T/D by Hill's Pet Foods in regular and small bites. The fibers are designed to wipe the teeth instead of shattering when the dog bites down on the kibble. Dry Eukanuba Veterinary Diets by the Iams Company have a Dental Defense system. This is a coating of sodium hexametaphosphate (HMP) that reduces tartar by making it more soluble in saliva. Innovative Veterinary Diets (IVD) has a Canine Dental Formula with a larger kibble size coated with HMP and additional antioxidants added.

Treats and chews include Tartar Check (biscuits coated with HMP), rawhide chews (Chew-eez, C.E.T. Oral Hygiene Chews, C.E.T. HEXtra Chews, Enzadent Oral Care Chews), pig ears, Pedigree Dentabones, Pedigree Dentastix and Greenies. Be aware of the calories some treats can add and also be aware of the possibility of choking or gastrointestinal upset. Avoid using very hard treats or toys like natural bones, nylon bones or cow hooves since they can cause tooth fractures requiring a trip to your veterinarian for treatment.

Rinses and gels generally contain 0.12% chlorhexidine gluconate (CHX, Nolvadent, Hexarinse) or zinc/ascorbic acid (Maxiguard) which are antibacterial. There is a product, Pet Oral Hygiene Solution, by Oxyfresh that can be added to drinking water that contains Oxygene and zinc acetate.

There is a product called Oravet (previously ProVSeal) that is a waxy polymer applied to the teeth following a professional cleaning that inhibits bacterial adhesion to the tooth. The product gradually wears off but it helps to protect against plaque formation while the mouth heals after extraction or surgery. A home product can then be easily applied by the pet owner once weekly to maintain the seal. The product is tasteless, odorless, invisible and non-toxic.

Resist the temptation to use hand scalers or curettes regardless of training. It can cause trauma to gums and excessive wear to the enamel which is quite thin in dogs. Also, without polishing, the roughened surface allows plaque to adhere much faster and easier.