

PERIODONTITIS IN DOGS

by Deborah Long Sams, DVM

The most common oral disease of domestic dogs and cats is plaque-induced periodontitis. Periodontitis is considered to be a bacterial disease of the oral tissues caused by the various bacteria in dental plaque. Plaque is the soft amorphous deposit which accumulates on all exposed tooth surfaces. Bacteria in plaque elaborate toxins and other by-products which damage the periodontal tissues (gingiva, periodontal ligament, alveolar bone, and cementum of the tooth root). An animal's body responds to a plaque-laden tooth almost as it would to an infected thorn. A local inflammatory response occurs around the tooth which damages the periodontium eventually causing periodontal abscesses, tooth mobility, and/or tooth loss.

Surface plaque collects minerals from the saliva and hardens to form dental calculus (tartar). Calculus is the brownish, cement-like deposit found both above and below the gingival crest (gum-line). It can perpetuate periodontitis by mechanically distorting gingival tissue, by interrupting the self-cleaning flow of saliva, or by trapping food and hair. Most important, calculus contributes to periodontitis by providing a rough surface scaffold for the accumulation of plaque. Surface plaque is the primary irritant to the periodontal tissues in periodontitis.

Since periodontitis causes some permanent destructive changes in the mouth, (e.g. bone loss, gingival recession) it is not an entirely curable disease. The goal of managing periodontitis in the dog is to stop disease progression by thoroughly cleaning the oral cavity and removing conditions with which plaque predisposes to rapid plaque accumulation; (e.g. retained deciduous teeth, deep periodontal pockets, or malaligned teeth). Routine dental prophylaxis performed by a veterinarian should always include a thorough scaling and polishing. Root planing curettage, gingivectomy, and tooth extraction are also commonly necessary.

Following a complete dental, consistent home-care is recommended to control periodontal disease. Home-care involves brushing the teeth daily with an appropriate dentifrice or antimicrobial solution. Veterinary dentifrices available on the market include C.E.T., D.V.M., and Oxydent. The primary advantage of flavored toothpastes is increasing animal compliance when brushing the teeth. Antimicrobial solutions which have proven of greatest benefit in controlling periodontal disease are those containing chlorhexidine in approximately 0.1% concentrations which are well tolerated by the animal and which do not stain the teeth with prolonged use. Zinc-ascorbate solutions are now available which may prove useful in promoting oral healing or in controlling halitosis.

Signs of periodontitis usually noticed by owners include halitosis, hypersalivation, pawing at the mouth, difficulty in eating, a change in food preference, and/or inappetence. Some dogs slowly adapt to the growing and persistent pain caused by periodontitis, gradually becoming dull, lethargic, irritable, or anti-social. These behavior changes are usually gradual and are often attributed to old age instead of to chronic pain. Following dental prophylaxis with subsequent alleviation of pain it is not unusual for animals to gain a substantial amount of weight. Many dogs, even those which have had multiple extractions, begin to eat hard diets again with relish.

(This excellent article on teeth was submitted by Alicia Rescek from material she received