

Periodontal Disease in Pets

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Unfortunately, most adult dogs and cats have periodontal disease. Imagine if you didn't brush your teeth for days, weeks or months.

Plaque is a transparent adhesive fluid composed of mucin, sloughed epithelial cells aerobic, and gram positive cocci. Plaque starts forming within two days after a professional dental scaling and polishing. If the plaque is not removed, mineral salts in the food will precipitate to form hard dental calculus (tartar). Rough calculus covered with plaque is irritating to the gingival tissue, changing the pH of the mouth allowing bacteria to survive subgingivally. By-products of these bacteria harm the tooth's support structures, often causing pain and the tooth to be lost.



Periodontal disease. Photo by Dr. Jan Bellows

Every professional dental visit should include probing and charting. A periodontal probe is an important instrument used to evaluate periodontal health. A probe is marked in millimeter gradations and gently inserted in the space between the gingival margin and tooth. A probe will stop where the gingiva attaches to the tooth or at the apex of the alveolus if the attachment is gone.

Intraoral radiography supplies important information when deciding which teeth can benefit from surgery and which should be extracted.

There are two common grading systems commonly used to classify the degree of periodontal disease. The mobility index evaluates the looseness of the tooth. There are three stages with stage 3 indicating advanced periodontal disease necessitating extraction.

Anatomically the periodontium is composed of the gingiva (gum), cementum, periodontal ligament, and alveolar supporting bone.

Periodontal disease can also be staged by the degree of periodontium affected as measured with the periodontal probe and intraoral radiographs.

Stage 1 gingivitis occurs when there is inflammation only without loss of the tooth's support.

Stage 2 early periodontitis is diagnosed when there is less than 25 percent support.

Stage 3 moderate periodontitis is diagnosed when 25-50 percent support loss occurs.

In *Stage 4*, advanced periodontitis is greater than 50 percent support loss.

When periodontal disease is not treated, subgingival bacteria can continue to reproduce, potentially creating deeper periodontal pockets through bone destruction. Eventually, this progression can cause tooth loss and systemic disease.

Treating Periodontal Diseases



Periodontal disease. Photo by Dr. Jan Bellows

The goal of treating periodontal disease is to decrease or eliminate the periodontal pocket.

What needs to be considered when planning periodontal care? The best outcomes result from a committed client, a cooperative patient, and a treatable tooth.

The client needs to be committed to save their pet's teeth. This commitment includes twice daily plaque control either through brushing, wipes, or products accepted by the Veterinary Oral Health Council.

Frequent veterinary dental progress re-examinations and expense should also be considered and discussed before choosing any surgery. The patient must also be a willing four-legged partner. If the dog or cat will not allow home care, the best dental surgeon and most caring owner will not make a difference. Unless there is strong owner commitment and patient compliance, it is much wiser to extract a tooth affected by moderate periodontal disease rather than letting the pet suffer.

Once the clinician is convinced that he is working on the right patient and tooth, the appropriate type of periodontal surgery is chosen. An ideal method allows exposure of the root surface, preserves the attached gingiva, and allows the gingiva to be resutured in a fashion to eliminate the periodontal pocket promoting reattachment to the root surface.

At one time gingivectomy was the treatment of choice to eliminate pocket depth and allow exposure of the root surface for cleaning. Unfortunately, part of the important attached gingiva is sacrificed in the gingivectomy procedure. Gingivectomies should only be used in cases of gingival hyperplasia where there is an overgrowth of tissue or when mucogingival surgery to preserve the attached gingiva is not practical.

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