

THE DENTAL CARE SERIES

By Jan Bellows D.V.M. DipAVDC

All Pets Dental Clinic

Periodontal Disease in Pets

More than 85% of dogs and cats older than four years have periodontal disease. Anatomically the periodontium is composed of the gingiva (gum), cementum, periodontal ligament, and alveolar supporting bone.

Periodontal disease starts when plaque attaches to the tooth surface; plaque is a transparent adhesive fluid composed of mucin, sloughed epithelial cells and 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 eat away at the tooth's support structures, often causing the tooth to be lost.

There are two common grading systems commonly used to classify the degree of periodontal disease. The mobility index evaluates the looseness of the tooth. With Stage 1 mobility, the tooth moves slightly. Stage 2 is diagnosed when a tooth moves less than the distance of its crown width. With Stage 3 mobility the tooth moves a distance greater than its crown width. Stage 3 teeth have usually lost more than 50% of their support and in most cases should be extracted.

Periodontal disease can also be staged by the degree of periodontium affected.

Stage 1 gingivitis connotes inflammation only without loss of periodontal support.

Stage 2 early periodontitis is diagnosed when less than 25% support loss occurs as measured with a periodontal probe and/or intraoral radiograph.

Stage 3 established periodontitis is diagnosed when 25%-50% support loss occurs.

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

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

Treatment of Periodontal Diseases

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

What influences the veterinarian when considering periodontal surgery? The need for a committed client, a cooperative patient, a treatable tooth, and a choice of which periodontal surgery procedure to use.

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.

Choosing appropriate teeth to operate upon is equally important. Every dental prophylaxis should include probing and charting. A periodontal probe is the single most 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.

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 and promote 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.

Dr. Jan Bellows is a board-certified veterinary dentist. His office, Hometown Animal Hospital and Dental Clinic, is located at 17100 Royal Palm Boulevard in Weston, Florida. He can be reached for consultations at 954-349-5800.

Date Published: 6/14/2002 5:44:00 PM

Date Reviewed/Revised: 12/20/2014

 [Feedback on this article.](#)

 [Print article](#)

 [Email article](#)

Copyright 2014 - 2015 by the Veterinary Information Network, Inc. All rights reserved.

Permanent Link: <http://www.VeterinaryPartner.com/Content.plx?P=A&A=163>