



Periodontal Disease



Periodontal disease occurs when bacteria from the mouth form on the teeth in a substance called plaque. The plaque makes its way under the gumline and sets in motion a vicious circle, which can eventually lead to tooth loss.

The bacteria in the subgingival plaque will secrete toxins. These toxins damage the periodontal tissues and can decrease the attachment. However, the bacteria will also elicit an inflammatory response from the animal's gingival tissues. White blood cells and other inflammatory mediators will leak out of the periodontal tissues and into the periodontal space (between the gum or bone and the tooth). The white blood cells will release their enzymes to destroy the bacterial invaders, but will also damage the attachment of the tooth. As this progresses, the pocket will get deeper and deeper. This will weaken the bone in the area, and if it is in the lower jaw it can weaken it to the point of causing a pathologic fracture. This is most common in older small breed dogs. The end stage of this disease is tooth loss, however the disease has caused problems well before this.

The inflammation in the gingiva that allows the body's defenses to attack the invaders also allows those invaders to gain access to the body. The bacteria from the mouth can enter the bloodstream and be carried throughout the body. Studies have shown that these bacteria will be filtered out by the kidney and liver, and can cause microabscesses on these organs. This leads to a decrease in function of these vital organs over time. In addition, it has been suggested that these bacteria can become attached to the heart valves and cause a disease called endocarditis. In addition, the body must deal with these bacteria on a daily basis, leading to a state of chronic disease.

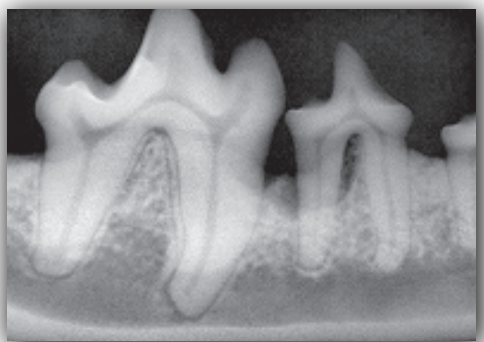
Treatment of periodontal disease is a two to three pronged attack. The first step is a thorough dental prophylaxis including charting and treatment planning. If there is no current periodontal pockets, this will be the only treatment necessary. Next and most important is home care. This will greatly increase the periodontal health of the patient, as well as decrease the frequency of professional cleanings. If you have a young pet (less than 1 year) you can usually start with home care, however consult your veterinarian first. If your patient has calculus already, then a professional cleaning is required to allow home care to be effective. If there is current periodontal disease, then periodontal treatments may be attempted to save the teeth if the client is able to follow through with home care. However, if the periodontal disease is advanced then extraction is usually indicated.



Periodontal disease associated with the upper canine teeth in cats often produce expansion of the buccal bone and extrusion of the canine tooth coronally.



Significant tartar associated with overcrowded teeth in a dog.



Periodontal disease has destroyed the bone associated with this mandibular premolar and molar.