

# Client Education Series: Periodontal Disease in Dogs & Cats



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# What is Periodontal Disease?

By 3 years of age, over 75% of dogs and cats have disease of the teeth and gums called periodontal disease. The process starts when bacteria in the mouth combine with food and saliva to form plaque. When plaque is not removed from the tooth surface, it mixes with minerals in saliva, which creates a hard substance called tartar or calculus. Once this hard layer is formed, it is no longer easily removed with dental home care. Tartar in pets is often visible by owners as brown, gray, or yellow discoloration on the teeth.

Although tartar is unsightly on the tooth surface, it is what happens beneath the gums that is the most important part of periodontal disease. Plaque bacteria move deeper under the gums and release toxins, which destroy tissue and activate the body's immune system. As the disease progresses, teeth become loose and dental abscesses form. With advanced infection, bacteria in the mouth gain access to the bloodstream and travel through the body. Signs of dental disease in dogs and cats are bad breath, difficulty eating, sensitivity when chewing, reluctance to eat hard food, avoiding toys, anorexia, weight loss, behavior changes, drooling, bleeding from the mouth, pawing at the face, and swelling along the muzzle or jaw.

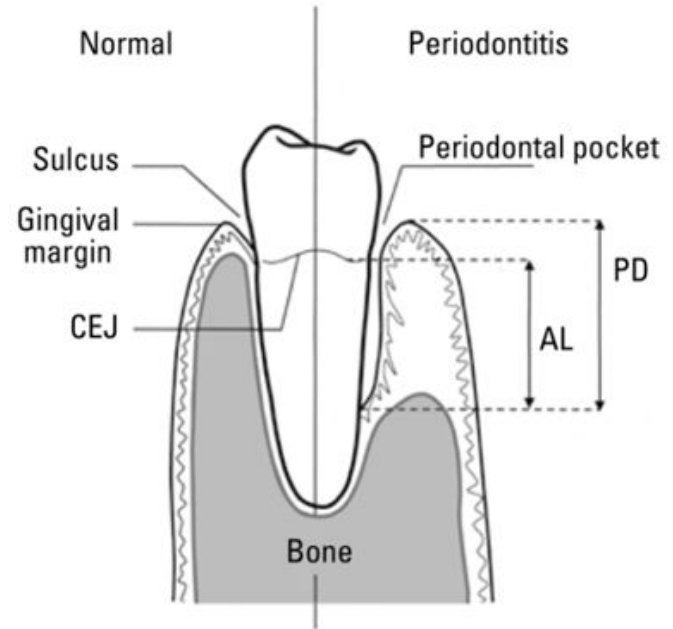
# Periodontal Pocket (PP) & Attachment Loss (AL)

Teeth are held in a bony socket (alveolus) by a periodontal ligament and the gingival (gum) covers the bone.

When all the tissues are healthy, normal measurements around the gums next to teeth (called the sulcus) are 2-3 mm in dogs and 0.5 mm in cats.

With disease, bacteria and the animal's immune response cause tissue damage and pockets of infection are formed.

Attachment loss (AL) is measured as a % of loss by noting where the tissues should be vs where they really are along the tooth to the end of the root.



# 4 Stages of Periodontal Disease (PD)

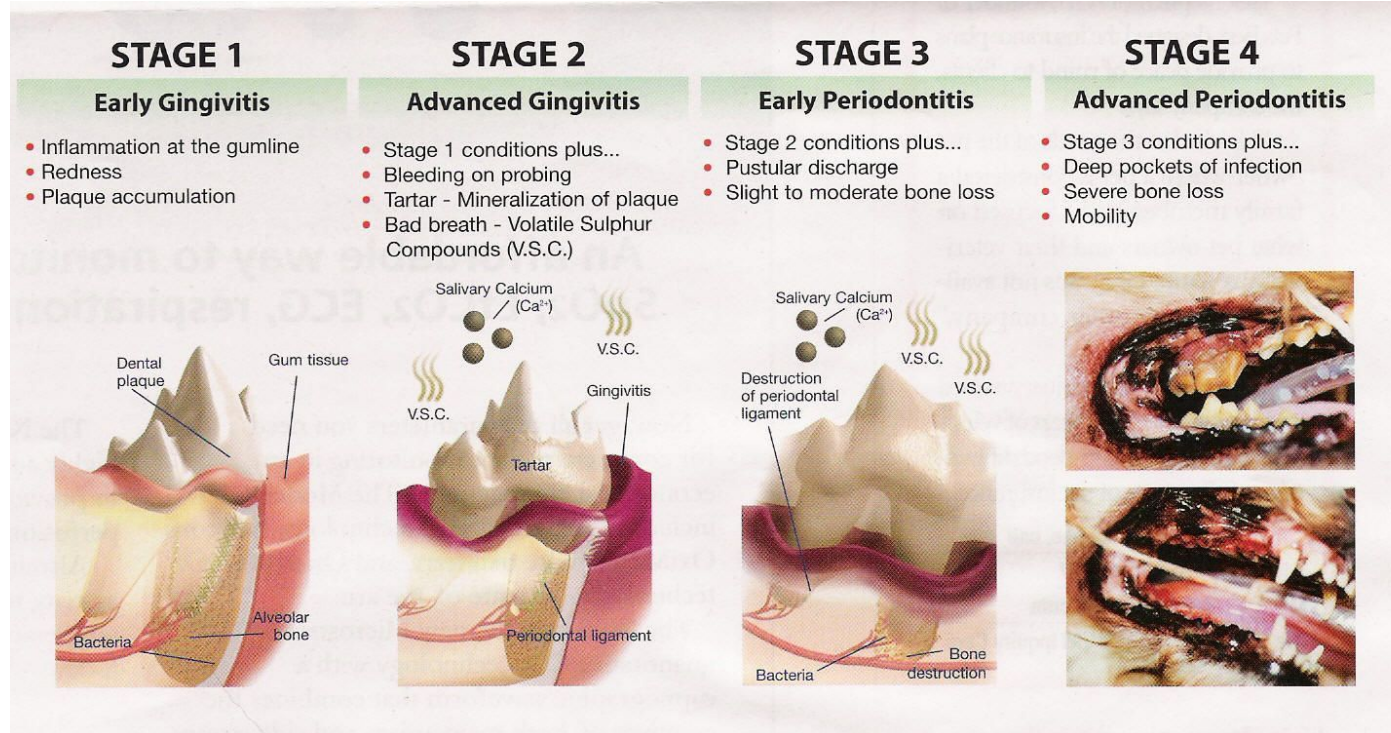
**Stage 0 (PD 0):**  
**Clinically normal**

**Stage 1 (PD 1):**  
**Gingivitis only**  
**No attachment loss (AL)**

**Stage 2 (PD 2):**  
**Early periodontitis**  
**Less than 25% AL**

**Stage 3 (PD 3):**  
**Moderate periodontitis**  
**25-50% AL**

**Stage 4 (PD 4):**  
**Advanced periodontitis**  
**Over 50% AL**



## Periodontal Disease in Dogs and Cats

### Stage 1 – Gingivitis

Margin of attached gingival (gum) is inflamed and swollen.

Plaque covering teeth.

Treatment can reverse condition.



### Stage 2 – Early Periodontitis

Entire attached gum is inflamed and swollen.  
Mouth is painful and odour begins to be noticeable.

Professional treatment and home dental care can prevent this from becoming irreversible.



### Stage 3 – Moderate Periodontitis

Cherry red and bleeding attached gum is being destroyed by infection and calculus (tartar). Sore mouth affects eating and behaviour.

Bad breath is present.

Beginning of periodontal disease.

May be irreversible.



### Stage 4 – Advanced Periodontitis

Chronic bacterial infection is destroying the gum, tooth and bone.

Bacteria may be spreading throughout the entire body via the bloodstream and may damage the kidneys, liver and heart.



# Treatment Considerations for Periodontal Disease

**Treatment for periodontal disease depends on the extent and severity of infection.**

**A professional veterinary dental cleaning to remove plaque and tartar should always be performed under general anesthesia to thoroughly clean and polish the teeth and treat below the gum line in a pain-free manner while protecting the animal's airway.**

**Dental radiographs taken under general anesthesia are an essential tool when determining the degree of infection hidden along the roots and bone, and if treatment options other than extraction of teeth are possible.**

**The animal's overall health and owner's willingness to provide home dental care are important factors to consider. Any teeth that are loose or have significant infection should be removed.**

**The goal with any dental treatment should be a healthy, functional, pain-free mouth.**

# Treatment options for Periodontal disease

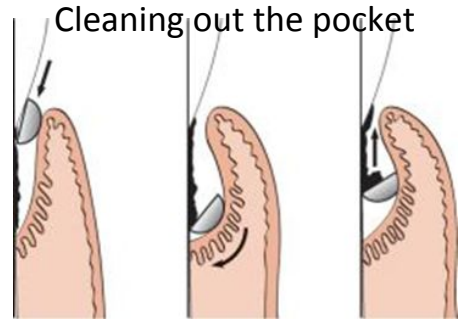
## Professional Dental Scaling and Polish

Under the gum line cleaning (root planing and subgingival curettage) for small pockets

Placement of antibiotic gels into moderate pockets

Periodontal Flaps, Bone graft and guided tissue regeneration - only done in select cases

Extractions - necessary in areas of severe infection and bone loss to prevent ongoing infection bone destruction



Applying antibiotic gel to cleaned pocket



# Preventing Periodontal Disease

The key to preventing periodontal disease is plaque removal, which is done with HOME DENTAL CARE.

The gold standard in home dental care for animals is daily tooth brushing, but less than 2% of pet owners brush their pets' teeth. Toothpaste specially formulated for dogs and cats should always be used because it is fluoride free.

Brushless gels and oral sprays with enzymes are useful in cases where the owner can only get into the pet's mouth for a short period of time.

Healthy chewing with dental-formulated diets and treats can help mechanically cleanse the teeth like a brush. Avoid offering very hard objects (antlers, pig hooves, "indestructible" hard plastic chews, etc.) to your pet to chew on as these may fracture teeth.

Water and food additives are another option to introduce enzymes that control plaque in your pet's mouth while eating and drinking. These are typically stress-free options, but it is important to monitor and make sure your pet is not changing their intake with the additives.

It is very important to avoid products with a high alcohol content, which can burn sensitive gum tissue, or xylitol, a sugar substitute that is toxic to animals.





*Finding the most effective route to  
good oral health for your dog or cat.*

**VOHC - Veterinary Oral Health Council exists to recognize products that meet pre-set standards of plaque and calculus (tartar) retardation in dogs and cats. Products are awarded the VOHC Seal of Acceptance following review of data from trials conducted according to VOHC protocols. The VOHC does not test products itself.**

**The VOHC Seal is displayed on products that have been awarded the Seal.**

**Regular use of products carrying the VOHC Seal will reduce the severity of periodontal disease in pets.**

**Visit [www.VOHC.org](http://www.VOHC.org) to find a list of of products that have been awarded the seal.**

**VOHC recommends that all of the products on its VOHC Accepted list are used as recommended by the manufacturer and that treat products are given when the pet can be observed by the owner. Almost all dogs and cats enjoy the chewing action and taste of palatable treats, and typically spend a few minutes chewing the product rather than bolting it down whole or in large pieces. If your pet does not chew the product thoroughly, discontinue use of the treat.**