



4229 VAN BUREN BOULEVARD, RIVERSIDE, CALIFORNIA 92503  
 TELEPHONE: 951.689.0440 ~ FACSIMILE: 951.689.4214  
 EMAIL: INFO@ARLINGTONANIMALHOSPITAL.BIZ  
 WWW.ARLINGTONANIMALHOSPITAL.BIZ

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## DENTAL DISEASE

### GENERAL INFORMATION ABOUT DENTAL DISEASE



Dental disease is one of the most common and overlooked diseases in companion animals. Dental disease occurs simply because animals cannot brush their teeth. The daily consumption of food results in food particle buildup on and between tooth surfaces. Bacteria in the mouth digest these particles resulting in the formation of plaque, a sticky yellow film coating the tooth surface. As plaque accumulates to significant quantities, bacteria begin to infect the gums causing gingivitis, often seen as a red line along the gums just above the teeth. Over time plaque will harden to form tartar, a matrix of calcium and bacteria. Tartar allows the bacteria to attach to the otherwise smooth tooth surface and helps push it under the gum line promoting cavities, gingivitis and gum recession. Deeper infection of the tooth roots is called periodontal disease, which ultimately results in tooth loss. Dental disease, gingivitis and periodontal disease are just as painful in animals as they are in people.



**BY THREE YEARS OF AGE 80% OF DOGS AND 70% OF CATS SHOW SIGNS OF ORAL DISEASE**  
**THE AMERICAN VETERINARY DENTAL SOCIETY (AVDS).**

### GRADING DENTAL DISEASE



← **GRADE 1:** Tartar has accumulated on the tooth surfaces (crown) but has not reached the gum line. No evidence of gingivitis is present.



← **GRADE 2:** Tartar has accumulated on the crowns and has started to move under the gum line. Evidence of early gingivitis is present.



← **GRADE 3:** Significant tartar has accumulated on the crowns and under the gum line. Significant gingivitis is present with gum recession, periodontal disease and tooth loosening.



← **GRADE 4:** Severe tartar has accumulated on the crowns and under the gum line. Severe gingivitis is present with severe gum recession and periodontal disease. Pus, root exposure and tooth loosening has occurred and teeth can be freely mobile.



### SYSTEMIC EFFECTS OF DENTAL DISEASE

Dental disease not only affects teeth and gums, it causes and promotes many other diseases. Teeth and gums have an extensive blood supply that can move harmful dental bacteria throughout the entire body by essentially acting as a highway. Dental disease is a systemic disease that affects the animal's overall health. Some diseases and infections associated with dental disease are:

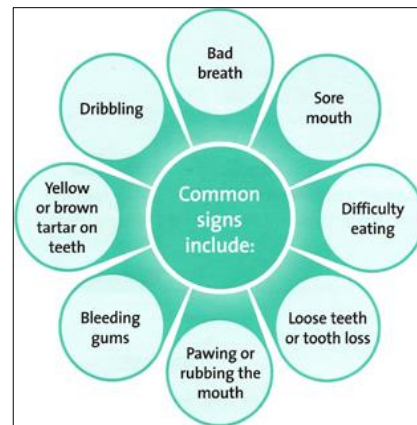
- |                            |                           |                              |                          |
|----------------------------|---------------------------|------------------------------|--------------------------|
| Heart murmurs              | Heart failure             | Tonsillitis                  | Gingivitis (gum loss)    |
| Bronchitis                 | Pharyngitis (sore throat) | Periodontitis (bony loss)    | Respiratory infections   |
| Kidney disease and failure | Liver disease             | Facial abscesses             | Joint infection and pain |
| Jaw fractures              | Jaw osteoporosis          | Sinusitis (Nasal) infections | Pneumonia                |
| Ocular damage/loss         | Ocular abscesses          | Chronic conjunctivitis       | Ear infections/pain      |

**PLEASE TURN OVER**

## SIGNS OF DENTAL DISEASE

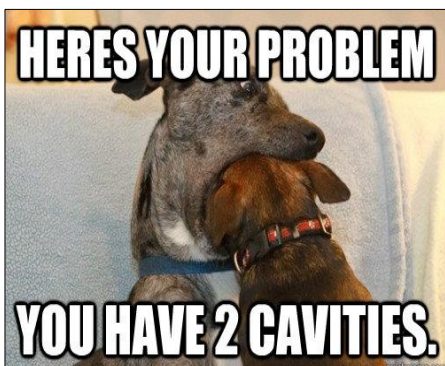
Dental disease is a common and often overlooked disease in dogs and cats. While cavities represent the most common dental problem in humans, tartar accumulation is the most common dental problem in dogs and cats. Signs of dental disease include:

Halitosis (bad breath)	Difficulty eating	Drooling
Chattering of teeth	Temperament changes	Pain when opening the mouth
Oral sensitivity	Nasal discharge	Vocalization (crying)



## DIETARY EFFECT ON DENTAL DISEASE

Feeding dry food is not an effective method of controlling dental tartar as tartar is very hard and solidly adhered to the tooth surface. Dry food however is not as sticky as canned food and is less likely to adhere to the tooth surface and promote dental plaque. Dental plaque and tartar can accumulate for reasons such as individual mouth chemistry and immunity, facial and oral structure, tooth crowding and breed predispositions. Dental disease is highly individualized and an animal may need a dental cleaning on a routine basis and or may only require a dental cleaning every few years. Routine oral examination and frequent dental cleanings for animals with higher incidence of dental disease is more economical as this will reduce the overall cost of dental care by minimizing anesthetic time, radiographs, tooth extractions, suturing and tooth loss.



## HOME CARE IN THE PREVENTION OF DENTAL DISEASE

The goal of home dental care is to remove plaque before it becomes tartar, calcified plaque that firmly adheres to the tooth surface. Home dental care can be divided up into mechanical management and chemical management.

### Mechanical Management:

**Tooth Brushing:** Tooth brushing is the most effective method of controlling plaque formation but its efficacy is highly variable based upon the animal's disposition and the owner's ability. Human toothpaste should not be used due to its unsuitable taste, detergent composition and high fluoride content. Animal toothpastes are lactoperoxidase enhanced enzyme products that have antibacterial (eliminate bacteria) properties that decrease plaque formation. Animal toothpaste comes in a variety of flavors that are palatable to animals. Animal toothbrushes vary in size from finger brushes to full size toothbrushes and come in various shapes.

**Dog Foods and Dental Treats:** There are many different prescription and over the counter (OTC) dental foods and dental treats designed to reduce dental plaque and tartar in animals. Hill's Prescription Diet T/D is one of the most effective dental diets and can reduce plaque and tartar formation by as much as 60%. This may highly benefit animals that have chronic dental disease.

**Dental Toys/Bones:** There are many dental toys and bones on the market that help reduce dental plaque by "scrubbing" the tooth surface. However toys and bones will not replace dental brushing and there is a risk of gastric obstruction if the animal swallows all or part of the toy or bone. There is also a risk of tooth fracture with hard toys or bones.

### Chemical Management:

**Cleansing Gels:** Cleansing gels such as Hexarinse and CHX-Guard contain ingredients such as Chlorhexidine that have bacteriostatic (prevent bacterial growth) and antibacterial (eliminate bacteria) effects that can reduce plaque formation. These gels should be used in conjunction with other methods to be truly effective.

## CHRONIC DENTAL DISEASE TREATMENT AND MANAGEMENT

**Routine Dental Cleanings:** Routine dental checks and cleanings will minimize spread of dental bacteria throughout the body and decrease the risk of organ and tissue damage. Brushing between dental cleanings will promote healthy teeth and gums. Just like with humans there is no substitute for routine dental cleanings.

**Pulse Therapy Antibiotics:** Antibiotics can be used prophylactically prior to dental treatments, perioperatively at the time of dental treatments, postoperatively after dental treatments and/or in a pulse therapy regime, typically given the first seven days of each month. Pulse therapy antibiotics have been proven to help manage and control chronic dental disease, especially cases where dental treatments may not be feasible. Pulse therapy antibiotics will not work in all cases.

**THE KEY TO MAINTAINING GOOD DENTAL HEALTH IN YOUR PET IS CONSISTENT DENTAL EXAMS EVERY 6-12 MONTHS, ROUTINE CLEANINGS, A PROPER DIET AND AGGRESSIVE HOME DENTAL CARE.**

