

Dental Disease in Dogs & Cats

I was unaware that dogs and cats have dental problems. Is it common? Dental disease is one of the most common medical conditions seen by veterinarians. Over 80% of all dogs and cats over the age of three are estimated to have some form of periodontal or dental disease. Few pets show signs of dental disease. It is up to the pet's family and veterinarian to uncover this hidden and often painful condition.

Are dental problems the same in pets and people? No. In man, the most common problem is tooth decay, which, due to the loss of calcium from the enamel, results in painful, infected caries (also called cavities). In the dog, tooth decay represents less than 10% of all dental problems. The most common dental problems seen in dogs and cats are caused by periodontal disease. Cats also have a unique process resulting in erosion of the crown enamel at the gumline called resorptive or neck lesions.

What is periodontal disease? *Periodontal disease* is a term used to describe inflammation or infection of the tissues surrounding the tooth. Accumulation of tartar and calculus on the teeth causes gum recession around the base of the tooth. Infection soon follows and the gums recede further, exposing sensitive unprotected tooth root surfaces and the bony tooth sockets. Left untreated, the infection spreads deep into the tooth socket, destroying the bone. Ultimately, the tooth loosens and falls out.

Is periodontal disease very common? It is estimated that more than three-quarters of dogs and cats over three years of age suffer from some degree of periodontitis, making it by far the most common disease affecting our pets.

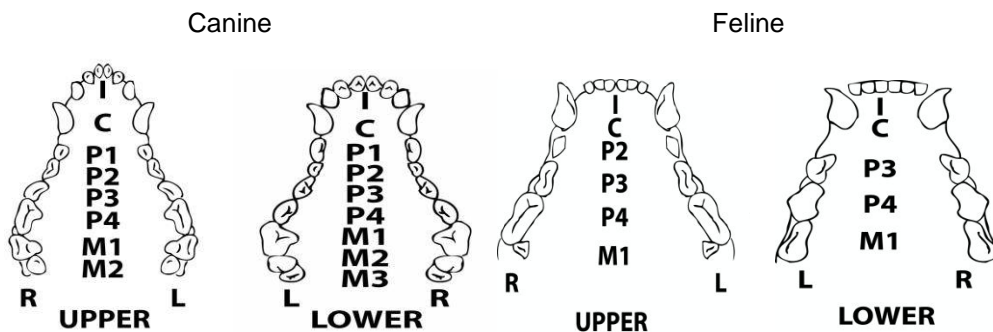
How does tartar form and why is it a problem? The mouth is home to thousands of bacteria. As these bacteria multiply on the surfaces of the tooth, they form an invisible layer called *plaque* or *biofilm*. Some of this plaque is removed naturally by the pet's tongue and chewing habits. If allowed to remain on the tooth surface, the plaque thickens and becomes mineralized. Mineralized plaque forms tartar and as the tartar thickens further it becomes *calculus*. The tartar accumulates above and below the gumline and presses on the gums, causing inflammation called *gingivitis*.

As the oral infection progresses, tonsillitis and pharyngitis can also occur. The bacteria can also be absorbed into the blood stream and be carried to other organs. "Bad teeth" can cause infections in the heart valves (*endocarditis*), kidneys and/or liver.

Can tartar be prevented? Plaque becomes mineralized in some pets much quicker than in others. The best way to prevent tartar build-up is regular home care, particularly tooth brushing using toothpaste that is specifically designed to be swallowed. Special chew toys and treats may help reduce or delay tartar build-up. Some pet foods have been specifically formulated as dental diets that mechanically assist in plaque removal.

Will feeding dry food remove tartar? Food manufacturers have recently developed new dental diets that can help reduce the formation of plaque and tartar in your pet. Once tartar has formed, it will be necessary to remove it by professional scaling and polishing under general anesthesia.

What is involved with a routine dental cleaning? A routine dental cleaning involves a thorough dental examination, followed by a dental scaling and polishing to remove the tartar and invisible plaque from all of the tooth surfaces. Your veterinarian will perform pre-anesthetic blood tests to ensure that kidney and liver function are satisfactory for anesthesia. Sometimes antibiotic treatment is started before the periodontal therapy is performed. Your veterinarian will discuss the specific pre-dental recommendations for your pet.



Once your pet is anesthetized, your veterinarian will thoroughly examine the mouth, noting the alignment of the teeth and the extent of tartar accumulation both above and below the gumline. If periodontal disease is severe, it may not be possible to save badly affected teeth, which may need to be extracted. Next, tooth scaling will be performed using both traditional hand scalers and ultrasonic cleaning equipment to remove all traces of tartar, both above and below the gum

line. The tartar below the gum line causes the most significant gum recession and it is extremely important that it is removed thoroughly. After scaling, the teeth are polished to remove microscopic scratches in order to help prevent subsequent plaque build-up. Special applications such as fluoride, antibiotic preparations and cleaning compounds may be indicated to decrease tooth sensitivity, strengthen enamel, treat bacterial infection and reduce future plaque accumulation.

The procedures that your pet may require will be discussed with you before your pet's dental cleaning. Since it can be difficult to predict the extent of dental disease in advance of the procedure, it is imperative that your veterinarian is able to reach you during the procedure to discuss any additional treatment that may be necessary.

Why can't I just remove the tartar and plaque with a dental scaler? Although you can remove the tartar that has accumulated above the gumline in some pets that are extremely co-operative, there are three problems with doing this. First, only the tartar above the gumline is removed, leaving behind the material below the gumline, which will continue to cause periodontal problems. Second, it is not possible or safe to clean the inner surfaces of the teeth properly in a conscious animal. Third, the use of any instrument on the tooth enamel will cause microscopic scratches on the surface, ultimately damaging the tooth surface and leading to further disease. (This is the reason why your dental hygienist always polishes your teeth after removing the tartar with dental instruments).

Do I have to make an appointment for my pet to have a dental scaling and polishing? Yes. Your veterinarian will perform pre-anesthetic blood tests, examine your pet for any other underlying disorders prior to the procedure, and determine if antibiotic treatment should be started in advance.

How can I prevent tartar accumulation after the procedure? Plaque and tartar begin forming in as little as six hours after your pet's dental cleaning. A home dental care program including regular tooth brushing is a must for all pets. Your veterinarian will provide you with detailed instructions on how to brush or rinse your pet's teeth.

Can I use human toothpaste? Human dentifrice or toothpaste should never be used in pets. These foaming products contain ingredients that are not intended to be swallowed and that could cause internal problems. Numerous pet toothpastes that are non-foaming and safe to be swallowed are available in flavors that are appealing to dogs and cats.

How Do I Brush my Pet's Teeth?

Brushing is by far the most effective means of preventing periodontal disease. It is a good idea to begin a brushing routine with your pet when they are 8-12 weeks of age. However, it is never too late to begin! Even older pets, with the right approach, will accept brushing.

Introducing Your Pet to Brushing

1. The first step is to work with your pet's mouth. With a little patience, your pet will soon accept your attention. Make it fun for both of you. Use a lot of love and praise to gain their confidence. Start by handling the mouth, lifting the lip, and then rubbing the teeth and gums gently with your finger. Give treats before and after to make this a positive experience. Your pet will soon look forward to this treat and the extra bonding experience.
2. Once your pet allows you to do step 1, you can progress to gently rubbing the teeth and gums with flavored pet toothpaste. Scrub gently with a finger brush, your finger, or a soft bristled pet or baby toothbrush. It is normal for your pet to swallow any liquids or paste that you put in their mouth. Focus primarily on the outside surfaces of the teeth. The tongue and saliva will keep most inside areas clean, but you can brush those as well if your pet tolerates it. Again, DO NOT use human toothpaste due to the foaming agents and fluoride that can make your pet sick if swallowed.
3. Once your pet is comfortable with brushing you should brush daily for best results, but even brushing a couple of times weekly will make a big difference in controlling plaque and calculus buildup and help prevent periodontal disease, pain, bad breath, and tooth loss.

NOTE: If your pet already has red and/or inflamed gums, it is best to have the teeth professionally cleaned under anesthesia first, otherwise it may be too painful for your pet and make it very difficult to start home care in the future.

Other Home treatment options:

- Chlorhexidine type sprays, rinses or washes. Some taste aversion is possible, especially in cats. These should be applied to all surfaces of the teeth once daily.
- Maxiguard is a thick and virtually tasteless gel, so is generally better for cats. The gel that is wiped on the outside surfaces of teeth once daily.
- Dental chews and treats with the Veterinary Oral Health Council (VOHC) seal of approval (eg. Greenies). Avoid hard bones or rubber chews that can fracture teeth. Many raw hide type chews also harbor salmonella and e-coli bacteria.
- Dental diets work by either mechanical removal of plaque or are coated with enzymatic substances that chemically remove plaque.
- Water additives have very limited antibacterial properties and mostly affect superficial bacteria that cause bad breath.

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