



# Noah's Ark Animal Hospital

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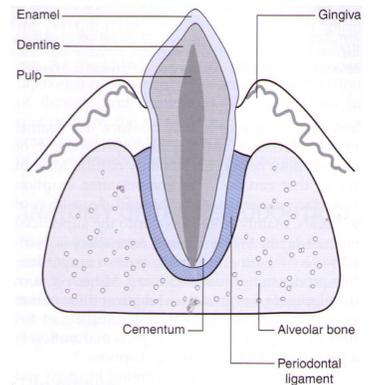
## *Why does my pet need a dental cleaning?*

The doctor has recommended that your pet undergo a **dental prophylaxis** (prophy or cleaning for short). Depending upon the condition of your pet's teeth, this procedure may be preventative in nature, or it may be to treat an already established problem and prevent further damage from occurring. Don't be surprised if your pet is not alone if 85% of all pets aged 3 and older have periodontal disease.

### *What is periodontal disease?*

Each tooth in the mouth has roots which are held in the bone of the jaw by strong, fibrous ligaments called periodontal fibers. These fibers and the bone they attach to are covered by the tissue we see as gums. When any of these support structures (gums, periodontal ligament and alveolar bone) become inflamed, infected or eroded away, **periodontal disease** is to blame. Periodontal disease starts out very innocently, but over time, if untreated, progresses to cause significant damage to several areas of the body, not just in the mouth.

The primary cause of periodontal disease is bacteria that are present in the mouth and have combined with food and saliva to produce a slimy film called plaque. Over time, plaque mineralizes into a tan, brown or black concrete-like substance called tartar. This plaque and tartar are the foundation upon which bacteria build and advance up under the gum line to destroy the ligaments and bone holding the teeth in place thus causing periodontal disease. This disease can be stopped in its tracks if we pay attention to the early warning signs of the inflammation called **gingivitis** (red, swollen gums). Cleaning early on can prevent pockets of erosion from forming underneath the gum line where bacteria can flourish and lead to eventual loss of the tooth.



**Unfortunately, many pet owners think that the dental cleaning is primarily cosmetic in nature, when the real reason for a cleaning is to treat what you cannot see – the disease under the gum line.** A thorough dental cleaning will address the disease above and below the gum line. This is also important as infection under the gums can lead to disease in other areas of the body. As anyone has seen who has brushed vigorously until their gums have bled, the gums have very abundant blood supply. The same blood capillaries that bring blood into the gums readily carry bacteria and their toxins back out of the gums to the rest of the body. This spread of bacteria and toxins has been definitively linked to liver and kidney disease/infection, bladder infection, heart valve infections and more. It is now well established that this "hidden" source of infection in dogs and cats, although it does not cause immediate illness if leads to a slow poisoning of various body systems and can be a major cause of shortened lifespan in pets. What might seem to be just a cleaning that makes your pet's teeth look better and breath smell better, if done regularly, experts say can lengthen your pet's life by 2 to 5 years.

Periodontal disease is classified based on the severity and progression of oral disease seen on basic examination, and can only be definitively determined at the time of cleaning and periodontal probing (and maybe dental x-rays).

- **Stage 1 Periodontal Disease** - gingivitis (inflammation of the gums)
  - Plaque and calculus are present, but there is no loss of supporting tissues around the teeth (gums, bone, periodontal ligament).
  - Complete dental cleaning will remove the plaque and calculus and should help reduce gingival inflammation.
- **Stage 2 Periodontal Disease** - early periodontal disease
  - There is initial attachment loss (supportive tissue), such as pocket formation and/or root exposure.
  - Additional deeper cleaning may be necessary, along with possible antibiotics.
- **Stage 3 Periodontal Disease** - moderate periodontal disease
  - There is continued attachment loss, including deeper pockets and/or tooth mobility.
  - More extensive periodontal treatment and some extractions are necessary.
- **Stage 4 Periodontal Disease** - significant periodontal disease
  - There is extensive attachment loss, with compromised teeth.
  - More extractions are necessary.

## *How often will my pet need a dental cleaning?*

The time between professional dental cleanings will vary greatly from pet to pet, however, the goal is the same – preventing periodontal disease from becoming established. The determination of when a cleaning is necessary is best made by the veterinarian, following an oral examination. Signs of stage 1 periodontal disease such as plaque and calculus accumulation, gingival inflammation and bleeding, etc. are the warning signals that cleaning/treatment is needed now, to prevent progression to Stage 2, 3 or 4 periodontal disease. For the typical pet, to keep teeth healthy and avoid Stage 2 or greater disease a professional cleaning will be needed every 1-3 years. Some owners find this frequency surprising, however, considering that pets age 5-7 years faster than people, even a yearly dental cleaning for a pet is like us having our teeth cleaned every 6 or 7 years. YUCK!!! Lift your pet's gums and look at their teeth, especially the big molars in the back of the mouth – would you let your teeth get like this? If your pet has bad breath and/or brown teeth, it is likely time for a professional cleaning.

A variety of factors affect how often pets need a professional cleaning. Feeding dry food, using dental rinses and chews, brushing your pet's teeth and other factors can help lengthen the time in-between needed dental cleanings. After a dental cleaning, there are practices you can adopt which will help protect the investment you have made in your pet's health by having a professional cleaning.

## *What exactly is involved in a dental prophylaxis?*

A true dental prophylaxis requires professional instrumentation to get the job done right. Attempting to remove the tan/brown calculus from the tooth surface at home with a tooth brush is futile. As we discussed earlier, there are two important points to remember. First, the tartar/calculus on the teeth is hardened like concrete and will not come off with a brush. Sharp metal instruments called scalers and/or an automatic machine called an ultrasonic scaler must be used. Secondly, remember that the real problem and threat to your pet's health is the disease that is under the gum line and is hidden from view. This is one reason why hand-scaling while the pet is awake that some groomers offer is only cosmetic, and does not stop the progression of periodontal disease.

Because pets easily become afraid when dental instruments are used in their mouth, and since they do not understand or rinse and spit, anesthesia is a standard and necessary part of any true professional cleaning. The anesthesia allows for sometimes painful teeth and gums to be properly treated and also is safer. Because there is a lot of water sprayed in the mouth during a cleaning, a breathing tube used to deliver the anesthesia, also prevents this water from being inhaled into the lungs which could lead to aspiration pneumonia. We will discuss all of the anesthesia safety measures we have available when your pet's teeth are cleaned.

After the pet is anesthetized, large chunks of tartar can be removed with metal instruments, specifically designed for this purpose. Then, an ultrasonic scaler with a tip that vibrates at rates of 30-40,000 cycles per second uses this motion as well as a process with water called cavitation to blast even the smallest amounts of tartar off the teeth. Because of the microscopic scratches left on the tooth after this process, a polish is performed after the scaling is complete. Each tooth is examined and probed for evidence of periodontal disease and the extent of the disease is determined at this time. Certain criteria are evaluated to determine if a tooth is healthy enough to remain, or if it is necessary to extract it. Every effort is made to save a tooth if at all possible, but some teeth are so diseased, that if they are not extracted, they will just harbor infection and are best removed than left in place. Dental x-rays may be used to determine the health of the tooth as the degree of bone loss around a tooth can often only be determined by x-ray images. After any needed extractions are performed and tooth conditions are recorded, a fluoride treatment is applied. Just like in human dentistry, this helps to strengthen the tooth enamel and reduce tooth sensitivity. If approved by the pet owner, a wax-like barrier sealant called Oravet® can be applied at this time to help reduce the rate of plaque and tartar accumulation in the months following the professional cleaning. The pet is now awakened and will be discharged later in the day with instruction and education on measures to preserve dental health. The professional dental cleaning (with the exception of the anesthesia) uses the same instruments and techniques you have likely had when you go to the human dentist – usually much more often!

If you have any questions about professional dental cleaning, cost, preventative aftercare, etc., please feel free to ask. We hope that you can see that your pet needs dental care, not just so their mouth looks and smells better (which, as an added benefit, it will), but even more importantly because just like in humans, dental health is so closely related to overall health in the long-term.

For more information we encourage you to visit [www.cetdental.com](http://www.cetdental.com) and [www.petdental.com](http://www.petdental.com). Schedule that appointment for your pet today so we can together prevent the progression of periodontal disease and its long term consequences. Do it now!



**Figure 1 Removal of tartar with hand instruments**



**Figure 2 Ultrasonic scaling of tooth surface**



**Figure 3 Polish of tooth surfaces following ultrasonic scaling.**