

This Month: Dental Care

Dental Care

Oral, or Periodontal, disease is the most commonly diagnosed infection in domestic cats and dogs. It is estimated that 2/3 of pet owners neglect home dental care for their cats and dogs, making it the most commonly overlooked area of pet care. With this in mind, when was the last time you tried brushing your pet's teeth? Did you know they made pet toothbrushes, and even pet toothpaste that comes in flavors like poultry? Does your pet have "dog breath"? It has been found that 80% of dogs and 70% of cats have some form of oral disease, so if you've never thought of doing any sort of dental homecare on your pet you are not alone. However, you will want to start, because once periodontal disease sets in it cannot be cured, only treated and controlled.

Periodontal disease is an infection of the tissues surrounding the teeth that results in irritated and bleeding gums, bone reduction, tooth loss, and occasionally heart, liver and kidney disease. In fact, every time a dog or cat with periodontal disease eats (even if it's just a snack) food and bacteria get under the gums and into the blood stream, making these pets even more at risk for these dangerous diseases. Bad breath is usually the first sign of oral disease, and many times symptoms also include heavy salivation, a change in eating or chewing habits, depression, pawing at the face or mouth, and anorexia.

The stages of Periodontal disease:

1. Saliva causes a film of glycoproteins to immediately attach to a newly cleaned tooth.
2. Bacteria begin to attach to this saliva film within hours, creating a biofilm called plaque. Plaque actually helps to protect the tooth enamel from other microbes for a short time, but because of its rapid ability to develop should be removed daily. Brushing or chewing specially designed foods and toys can easily remove plaque.
3. As the bacteria in the biofilm dies over the next few days the plaque calcifies into tarter (calculus). Tarter is much more difficult to remove than plaque, and once formed creates a rough surface that allows more bacteria to attach, creating a new layer every 24-48 hours.
4. Plaque also forms under the gums, causing gingivitis (inflammation and bleeding of the gums) and creating a larger opening between the gums and teeth that more plaque, tarter and food can enter.
5. These openings become infected by bacteria and rotting food, which spreads to the bony socket beneath the tooth eroding it away and leaving the tooth loose in its socket.
6. If the loose tooth is not cared for immediately, infection can spread further and get into the blood stream, causing heart, liver and kidney disease.

It's actually not the tartar that causes periodontal disease in dogs and cats; it's the bacteria in the plaque that does it. The tartar gives the bacteria a better surface to attach to, but it's the plaque that gets underneath the gums, creating pockets in which food can rot and bacteria can absorb oxygen. Decreased oxygen allows anaerobic, gram-negative bacteria to take place of the formerly aerobic bacteria that were under the gums, and it is these anaerobic bacteria that eat away at the bone and surrounding tissues, causing gingivitis and eventually periodontal disease.

Surprisingly, clean teeth and healthy gums can do more for your pet than just giving him or her fresher breath. You will see a healthier appetite in your pet, more energy, fewer urinary tract infections and other infections, and a lower risk of chronic, low-grade bone or liver infections (which sometimes manifest as raised Alkaline Phosphatase [ALP] levels).

Dental Facts: Dogs

- Puppies have 28 temporary teeth that begin to show around 3-4 weeks of age.
- Adult dogs have 42 permanent teeth that replace the puppy teeth around 4 months.
- Small and short-nosed breeds are more prone to oral disease because their teeth are closer together, they live longer, and their owners are more prone to feeding soft food.
- Aggressive chewing on hard objects is a common cause of broken teeth in dogs.
- Dogs don't get cavities; instead they get broken and fractured teeth.

Dental Facts: Cats

- Kittens have 26 temporary teeth that begin to show around 2-3 weeks of age.
- Adult cats have 30 permanent teeth that replace the kitten teeth around 3-4 months.
- Cats are prone to developing cervical line lesions (similar to our cavities) that are very painful. At least 28% of domestic cats develop one or more of these lesions during its lifetime.
- Exotic cats (such as Persians or Siamese) have more dental problems than domestic shorthaired cats.

Starting a dental care routine at home can be a daunting task. The best way to start is by taking your pet to the veterinarian to make sure he or she doesn't already have oral problems. If a complete oral checkup reveals no problems the vet can help you create a custom plan for home dental care, which will most likely include brushing, diet and regular at-home and in-clinic checkups.

Starting at your pet's first puppy or kitten checkup, regular oral exams should be given by both your veterinarian and yourself. Puppies and kittens should be examined to make sure their baby teeth are coming in correctly and being replaced by their adult teeth. Jaw size should be monitored by your veterinarian as your pet grows, and any swellings or abnormal areas should be shown to your vet immediately. Adult dogs and cats should be examined for loose or broken teeth, tartar buildup (a yellow or brown buildup), oral tumors, periodontal disease and gingivitis.

At home, cats will need to be placed on a sturdy, well-lit table for their exams; not only do heights make cats feel more comfortable (the opposite with dogs!), but it's easier to see into their mouths when they are higher up. If the cat gets visibly agitated or growls, stop the exam and give him or her time to rest. Examine the face of both species before looking in the mouth – any puffiness under the eyes or neck can mean fractured or infected teeth. Smell your pet's breath. If your pet has "dog breath" it may be a sign of

oral disease. Check for red, swollen gums (gingivitis), tarter, chips or fractures in the teeth, and red, brown, or black spots on the enamel which may indicate a deep cavity in the tooth that could soon abscess. If you can, press on the teeth and note any movement; usually the front teeth will show signs of movement before the back teeth and they are easier to check with an impatient pet. Press a q-tip around the gum-line to check for discharge, cavities, gingivitis, or periodontal pockets between the teeth and gums; if the animal responds painfully there are probably cavities or pockets present. Cats are prone to cavities, but both species should be checked for signs. Cats are also prone to oral growths and tumors; check the gum-line, below the tongue (if you can), and inside the cheeks for these.

As well as these monthly exams, both cats and dogs should have daily dental preventative, either in the form of diet, treats, or (the best!) brushing. Can you imagine how nasty your teeth would look and feel after only a week of not brushing? Now can you imagine how gross your teeth would be after *years* of never scraping off the tarter that has built up? Unfortunately for many of our pets, they don't have to imagine it - they already know.

Brushing your pet's teeth can seem like a daunting task. While it's much easier on both yourself and the animal if you start while they are still young puppies and kittens, even older dogs and cats can learn to tolerate daily brushing with a little work on our part. It's best to start small and work your way up. Using just a naked finger to rub along the teeth at the beginning will help your pet get used to your fingers in its mouth, which will help him or her be calm whether you are brushing the teeth or thoroughly examining the mouth. When your pet is used to your finger being in its mouth, cover your finger with gauze or a clean cloth and use that to rub the teeth until the pet gets used to the new texture. If your pet really doesn't like the cloth you can try putting some pet toothpaste on your naked finger and letting him lick it off (most pet toothpastes will taste good to dogs and cats); after he is used to the taste, rub it on his teeth. Then you can try putting it on the gauze and letting him lick it off the gauze, or rubbing his teeth with the toothpaste-covered gauze. Remember to move slowly – you don't want to use your naked finger on the first day and then go straight to the gauze with the toothpaste the second day. If you are having problems beginning this process you can visit the CET dental page at www.cetdental.com for more advice on desensitizing your pets to tooth brushing.

Once your pet is used to the gauze (or even the gauze with the toothpaste), try using a toothbrush without toothpaste. Special pet toothbrushes can be found at most pet supply stores and veterinary clinics. Don't try to use a human toothbrush! Human toothbrushes have much harder bristles than pet toothbrushes (even the toothbrushes made for children are too hard) and can hurt your pet's sensitive teeth and gums. Use a pet toothbrush with soft bristles and an angled head, and always use pet toothpaste, as human toothpaste is not meant to be swallowed and can upset your pet's stomach. You will also want to stay away from baking soda, detergents, or salt when brushing your pet's teeth.

When you are ready to finally try a toothbrush with toothpaste, make sure you get the paste down into the bristles, rather than just sitting it on top of them. This ensures that each tooth gets as much toothpaste onto its surface as possible. Place the toothbrush at a 45° angle at the gum-line and move it in an oval pattern, brushing as much plaque and tarter down off of the tooth as you can. You will want to gently force the bristles into

the area around the base of the tooth and between the teeth, covering a few teeth at once. Luckily, you only have to brush the outside of the teeth, as that is where most of the plaque and food will accumulate.

While you should try brushing your pet's teeth daily, just as you do your own, you really need to brush them at least twice a week to keep tarter formation at a minimum. As stated above, it only takes 24-48 hours for plaque to form into tarter, and this tarter can only truly be kept away by brushing daily with a specially formatted enzymatic toothpaste. If your pet is really opposed to having its teeth brushed, there are prescription diets available to help combat plaque and tarter buildup, as well as dental treats made with chlorhexidine to help melt the plaque away. Most commercial treats and diets contain zinc which will inhibit odor formation by creating a stable complex with the sulfur, or will neutralize odors with essential oils like parsley, mint, and rosemary that can mask smells. **None** of these commercial treats will help with plaque and tarter buildup, however, so to get the best care for your pet ask your veterinarian what they recommend for alternatives to daily brushing.

If the diet and brushing aren't able to control the tarter buildup, you will have to take your pet into the vet to get a full dental treatment to scale and polish your dog or cat's teeth. In fact, it's a good idea to take your pet in once a year for a full dental treatment to get any tarter on the teeth or plaque beneath the gums that simple home brushing and diet could not manage. The vet will anesthetize your pet and take a good look throughout its mouth for cavities, gingivitis, tarter buildup, loose teeth, and oral tumors while it is asleep. The teeth are scaled with an instrument much like the pick a human dentist would use on your own teeth to scrape off any remaining plaque and tarter, and he will also scrape under the gum-line to check for pockets and bacteria or food buildup. The teeth are then polished to slow the reformation of plaque by creating a smooth surface that is difficult for bacteria to get a hold on, and a protective coating is put over each tooth to help keep it in good condition. Many vets will send the animal home with a product, such as DentAcetic wipes, which you can use between dental cleanings to keep your pet's mouth free from bacteria and plaque.

Halitosis

Halitosis is a fancy word for "bad breath", also called malodor, foetor ex ore, or fetor oris. It is generally defined as an offensive odor emanating from the oral cavity and is caused by plaque, tarter, infected tissues, decomposing food, and tissue necrosis. As the bacteria in the mouth die and putrefy they cause the generation of hydrogen sulfide, methyl mercaptan, and dimethyl sulfide, which all smell very bad. Lung or stomach air rarely contribute to halitosis, although it can sometimes be a sign of greater problems in the digestive tract, so you should always get your pet examined by the vet if his breath is foul, whether it be periodontal disease or something extra-oral causing it.

Success Story: !

Seal, an aging, female lab presented with a broken and painful canine tooth. According to her owner, as Seal got older she was experiencing more separation anxiety, especially during storms. A recent storm had driven Seal "bonkers" and she had tried to escape from her crate. In the process of pulling at the metal door, she snapped off the tip of her canine. The red pulp was exposed, and she couldn't eat because of the pain. Dr. Sheridan performed a "direct pulp capping." Under anesthesia, he used a high speed drill to remove a little more of the exposed root. A calcium hydroxide paste was applied to the top of the living pulp after bleeding was controlled. Then a dentin adhesive was applied, which hardened the pulp and created a cap, preserving the living pulp below it. Finally, silver amalgam was placed on top to create the final restorative layer. Seal was prescribed antibiotics and 'Clomicalm', to help with her separation and storm anxiety. Her owner was also educated on how to desensitize Seal to departures of her owner and the arrival of violent storms.

Just as in humans, restorative, endodontic procedures can also be applied to animals to help preserve important teeth. In the case of Seal, loss of the canine tooth would have resulted in the upper lip not being held outward in the correct position. The lip probably would sag a little and get caught often on the bottom canine. Loss of this important tooth might have been even more critical if 'Seal' had been a working dog, such as a guard dog, frisbee catcher, or bird retriever. These dogs depend heavily on functional canines. Even though 'Seal' was not a working dog, her owner elected to restore (rather than extract) this tooth to preserve her natural good looks! When planning restorative dental techniques on your pet, prognosis of the repaired tooth, cost, and value of the tooth, should be considered. Because dogs often have 42 teeth, sometimes extraction of a less important tooth might make more sense for you and your pet.

Dates, Upcoming News, Specials:

February is Pet Dental Health month! Call now to schedule your dog or cat's dental during the month of February and receive 20% off the procedure price.

February is also National Prevent-a-Litter month, with Spay Day on February 28th. This is the perfect time of the year to spay your dog before she goes into heat. Most summer-born puppies are old enough to spay by now as well.

Fall and spring's milder weather is the perfect breeding ground for ticks. If your dog gets a tick, buy some tick tweezers to safely remove the entire tick (including the head) and make sure to keep your dog well protected with Frontline Plus or Preventic collars.

Want to get a head start on this year's flea season? Keeping your pet on Frontline or Revolution throughout the winter months will insure that they will be flea-free come next spring! Doing the same for heartworm prevention will insure that your favorite furry friend is heartworm negative all year long too!

Did you miss last month's newsletter? Don't worry! The FRAH Newsletter is now on the web! www.follyroadanimalhospital.com/newsletter.htm

The FRAH website has also gone through a change recently, with new sections and information being added every week! Check out the new 'Homecare' section for advice on everything from behavior modification to wound care, to brushing teeth at home. www.follyroadanimalhospital.com

More Dental Health Tips:

- To use a rope toy as a toothbrush, untwist the braid of the rope enough to squeeze pet toothpaste inside. As your dog gnaws on the rope, the toothpaste will get onto his teeth and the rope will help scrape off plaque.
- The same applies to toys with spikes (commonly called "dental" toys!). Spread the pet toothpaste between the spikes for the same effect.
- Cats that are prone to cavities along the gum-line should be fed wet food. It is speculated that these cavities form as the tooth vibrates and shears while chewing harder foods; the vibration causes microfissures at the base of the teeth that allow the cavities to form.