


# Complete Oral Health and Treatment (COHAT) For Your Pet



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aring for your pet's dental and oral health is vital to his or her longevity and quality of life. Maintaining oral hygiene is an important part of your pet's medical care. Your pet will profoundly benefit from regular professional Complete Oral Health and Treatment (COHAT) performed under general anesthesia, as well as daily home care. The only proven method of optimizing dental health is the same for your pets as it is for us - daily brushing combined with regular COHAT by a qualified dental health professional.

## Home Dental Care For Your Pet

Home dental care helps slow the progression of dental plaque, which reduces tartar accumulation and helps increase the amount of time in between professional COHAT. Home care is most effective if done regularly using proven methods.

### *Brushing*

Daily tooth brushing is the gold standard of home dental care for both humans and pets. The mechanical motion over the teeth helps remove debris and prevents build-up of plaque, tartar and bacteria. Compared with any other home care method, brushing is more likely to reach areas in between teeth and under the gums where plaque accumulates. Brushing is preferably done daily, or every other day at a minimum. It takes 48-72 hours for plaque to harden into tartar that becomes difficult to remove with brushing alone.

### *Tools to Use*

Brushing can be done with a soft-bristled kid or adult toothbrush, a toothbrush designed specifically for pets, or soft finger brushes. For some animals, especially cats, a piece of gauze wrapped around the finger or a Q-tip may work as well. Additionally, the use of flavored pet toothpaste is helpful in removing plaque and making the process more enjoyable for your pet.

### *How to Brush*

When you first begin to brush your pet's teeth, start slowly with the goal of making the process enjoyable for you and fun for your pet. Stay positive by giving lots of praise. If your pet resists, stop and try again later. Remember that it is more beneficial to keep every brushing experience a happy one than it is to complete the entire process.



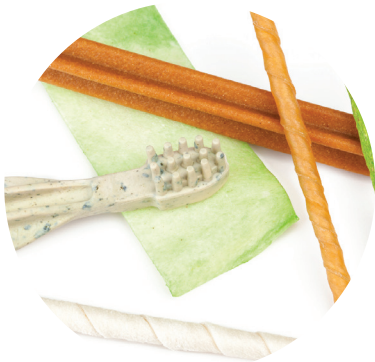
## When to Brush

Some pets may be more cooperative right when they wake up, after a walk, or just before bedtime. Experiment and find what time works best for the two of you. Then stick to a routine to make it easier for you to remember, while creating quality time with your pet that he or she will come to expect and be excited about every day.

## Doing it Right

Make your brushing routine a success by following these steps to ease your pet into it. You may need to do each step for a few days, getting your pet used to it before moving to the next step.

- **Step 1:** Allow your pet to taste the toothpaste, so it feels like a treat. Put a dollop on your finger or on a soft bristled kid, adult or pet-designed toothbrush and allow your pet to lick it off, giving lots of praise when he or she does so.
- **Step 2:** Continue by wrapping a gauze square around your finger, and gently move it over the outside surface of the teeth and gums. Never forcefully pry your pet's mouth open to reach the inside of his or her teeth. This is uncomfortable for your pet and can lead to having him or her bite you. And, it isn't necessary because your pet's tongue will keep the lingual (inside) surface of the teeth relatively clean.
- **Step 3:** Move next to using a toothbrush or soft plastic finger brush. Allow your pet to lick the toothpaste and gently chew on the bristles to become familiar with the texture. During the next few days, slowly start a circular brushing motion over the buccal (outside) surface of all the teeth. Be sure to focus on the canine teeth (four fang teeth in the front - 2 on the top and 2 on the bottom) and the large premolar and molars in the back of the mouth.
- **Step 4:** If you find that your pet's gums are bleeding or seem painful, or you are seeing anything on the teeth or gums that appears abnormal, bring your pet in for an exam. He or she may have a dental disease that needs to be treated before your pet will allow brushing at home.



## Chewing Aids

Chewing helps prevent plaque and tartar buildup by scraping the surface of the teeth as the pet chews. However, it is less effective at reaching areas between crowded teeth and under the gum line.

At Harmony Animal Hospital, we offer CET Dental chews and CET Veggiedent chews, which have built in enzymes to help slow tartar buildup. We also recommend over



the counter chews such as Greenies, Dentastix, DentaBones, and pressed rawhides (these do not have knots on the end). Harmony Animal Hospital's recommendation is to look for the Veterinary Oral Health Council's seal of approval, which indicates that the product has been tested and proven to have some benefit to your pet's oral health.

Pets should spend at least 30 minutes a day chewing for the maximum benefit. They should always be supervised while chewing so that you can take the treat away if it becomes a choking hazard.

**Note:** We do not recommend offering hard bones, hooves, antlers or Nylabone type chews since these can fracture teeth.



### *Water additives*

Aquadent is a water additive available from Harmony Animal Hospital that helps prevent plaque accumulation and freshens breath. This is very easy to use - simply add 2 teaspoons (10 ml) to a quart of drinking water every day. It should be noted that CET Aquadent contains an extremely small amount of Xylitol, which is a sweetener and an antiseptic used in many human dental products such as sugar-free gum, toothpastes and rinses. In high doses, this ingredient can be toxic to dogs. When you use Aquadent at the recommended levels, however, it is perfectly safe. If you are still uncomfortable with this product, we suggest an all-natural water additive product called HealthyMouth as an alternative.

### *Barrier Sealant*

The veterinarians at Harmony Animal Hospital recommend Oravet - a once weekly sealant that can be easily applied at home. It has a soft wax or vaseline consistency and is odorless and tasteless. It is applied to the tooth at the level of the gum line and acts as a physical barrier to prevent plaque and tartar formation on the surface of the tooth and under the gum line. This product does not remove plaque or tartar, so it is best used after and in between professional dental cleanings. This product can be used in conjunction with brushing your pet's teeth and offering treats and chews.

### *Diet*

There are several prescription dental diets on the market, including Royal Canin Dental Diet, Purina DH, Science Diet t/d, and Iams Dental Defense. Dental diets are formulated to be complete and balanced, and they help improve the oral health of dogs and cats mainly by creating a larger kibble size that has a coarse texture that promotes a mechanical scraping of the teeth.

Generally, your veterinarian can specially order these diets, and for convenience



most can even be shipped directly to your home on a regular schedule. If your pet is on a restricted diet or you do not want to change your pet's current diet, Harmony vets recommend using a dental diet as a treat rather than as a meal by giving a small handful of kibble daily.



## Professional Complete Oral Health and Treatment

Even with the best home care, professional COHATs performed with your pet under general anesthesia are a vital part of your pet's veterinary care. The drastic impact that optimal oral health has on your pet's quality of life and longevity is remarkable.

As a veterinarian with a specialty in dentistry, I am often asked how often do pets need a professional COHAT and why. If I explain it in relation to human oral care, hopefully, it will bring some perspective to the necessity:

We are encouraged by our dentists to brush at least twice a day and floss once a day, as well as visit them every six months for a comprehensive oral health exam and treatment. Our pet's teeth are no different however they cannot complain about oral health, discomfort, pain or infection, even if it is severe, specifically. So an ideal oral care plan for dogs and cats is home care comprising:

- daily brushing
- water additives
- weekly barrier sealants
- dental treats, and
- a professional COHAT under general anesthesia every 6-12 months, based on your pet's individual needs and oral health.

The purpose of a true dental prophylaxis (cleaning) is to prevent irreversible infection and disease, which inevitably leads to pain, tooth loss, and gum disease. Plaque accumulates daily and then turns to tartar, which harbors bacteria leading to oral inflammation, bone loss around the tooth roots, gingival recession, and sensitivity of the exposed tooth dentin and/or pulp chamber.

Over time, this progression always leads to oral pain, bad breath from infection, bone loss and eventual tooth loss. In severe cases it can lead to the loss of all your pet's teeth, oronasal fistulas (communication of the oral cavity into the nasal sinuses due to a hole in the bone around the tooth roots) and even jaw fractures.

Preventing and stopping the progression of oral disease is the primary reason for routine home care and regular professional COHATs with full oral exams. Once oral





disease becomes irreversible, the quality of your pet's life is greatly diminished, along with his or her longevity.

### *Steps of a Professional COHAT (at Harmony Animal Hospital):*

1. Dental prophylaxis using an ultrasonic scalar and hand instruments to remove plaque and tartar above and below the gum line. An application of disclosing solution to each tooth after the full mouth cleaning to ensure all tartar has been removed.
2. Polishing teeth using a slow speed hand piece with course grit followed by fine grit prophy paste to smooth the enamel of the teeth so that there are no grooves or scratches. This step is key after using any instruments on an animal's teeth because any grooves and scratches left behind trap future tartar and create faster promotion of tartar accumulation and dental disease.
3. A complete oral exam by a veterinarian including probing and measuring of any and all periodontal pockets, evaluating the surface of each tooth, and looking for abnormalities including:

- oral masses
- loose teeth
- fractured teeth
- missing teeth
- bone loss
- gingivitis
- gingival recession
- gingival hyperplasia and much more

Any and every abnormality found on an oral exam should be documented and referred to during future COHATs.

4. Dental Radiographs (Intra-oral X-Rays) should ideally be taken of all the teeth during every COHAT, even if the teeth look normal. The crown of the tooth is only 1/3 of the entire tooth and the only part of a tooth that can be fully evaluated during an oral exam. Dental radiographs are important to be able to "see" and evaluate below the gum line.

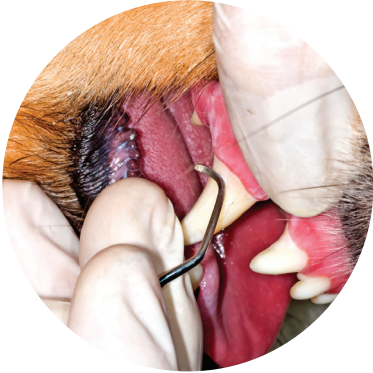


Without performing dental radiographs, it is possible to leave diseased teeth in your pet's mouth without even knowing it. Dental radiographs should always be performed and will be recommended if there are any abnormalities found during the oral exam including loose teeth, missing teeth, periodontal pockets, fractured teeth, oral tumors, foul oral odor, and crowding or mal-positioned teeth.

Dental therapy of any kind, including extractions, should not be performed without dental radiographs in order to dramatically reduce the chance of complications and missed oral pathology.

**5.** Oral or Dental Therapy - if there are any abnormalities found during the oral exam and/or on radiographs, treatment will likely be indicated. This can include:

- a. trying to save diseased teeth with root planing
- b. antibiotic gel infusions into periodontal pockets
- c. crown restorations
- d. bonded sealants, and
- e. bone grafting.



Extraction is recommended in the case of severely diseased teeth that are very loose, have >50% bone loss around the roots, have evidence of tooth root abscess or root lucency on x-ray, and fractured teeth. Oral masses should be removed and submitted for biopsy.

Anesthetic nerve blocks (similar to Lidocain in people) are always used to decrease pain and reduce the amount of inhaled anesthesia required to keep a patient sleeping through any painful treatment needed.

**6.** Barrier sealant, Oravet, is applied to the teeth at the margin of the tooth and gum line to help prevent plaque and tartar buildup for the following 1-2 weeks while your pet's gums heal. Brushing during this time can be uncomfortable and is not recommended.

Ideally, Oravet should be continued at home, by you, once a week as part of your home care plan to achieve optimal oral health for your pet.

Professional COHATs should always be performed under general anesthesia for a number of important reasons. Non-anesthetic COHATs are dangerous for your pet and often leave behind oral disease that is painful and will progress, falling below the standard of care according to board-certified veterinary dentists, the American Veterinary Dental College (AVDC), and American Animal Hospital Association (AAHA).



Here is a summary from AVDC website in regards to the dangers of anesthetic-free COHATs <http://www.avdc.org/dentalscaling.html>:

1. Sharp instruments used to clean the tartar off the surface of the tooth and under the gum line can be uncomfortable to your pet and lead to unnecessary damage to the gums if the pet is moving around. This can also be a safety hazard to the technician, as pets in pain often bite as a way of saying "OUCH".
2. The technician cannot obtain thorough cleaning under the gum line and in between teeth, where tartar and bacteria do the most damage. Though the teeth may "appear" clean in an awake pet, tartar remains under the gum line continuing to cause and increase disease leading to pain, infection and tooth loss.
3. Without an endotracheal tube placed during anesthesia, the airway is not protected. Therefore water, tartar and bacteria can be inhaled into the lungs if the airway isn't protected.
4. A thorough oral examination and probing all the way around each individual tooth cannot be properly performed in an awake animal. To reach the teeth in the back and to assess all of the oral cavity (ie, under the tongue and the throat), the animal's mouth has to be opened wide and held in this position for several minutes – a position likely to be uncomfortable for and resistant in an awake pet.
5. In an awake patient, proper treatment of dental disease such as gingival repair, root planing, or extractions is absolutely not possible.
6. Dental radiographs require proper positioning and a very still patient. This is not a possibility if the patient is awake.



At Harmony Animal Hospital, we understand that many clients have anxiety and fear regarding anesthesia for their pet. While there are inherent risks in performing any level of anesthesia, due to advancements in anesthesia protocols, drugs and patient monitoring, these risks are very minimal.

Even in senior pets or animals with controlled heart, liver or kidney disease, anesthesia is very safe. Please understand that age is not a disease and should not be a deciding factor in not having your pet's oral health evaluated and treated properly. Senior dentistry is a special interest here at Harmony Animal Hospital, and we have dramatically improved the lives of hundreds of senior pets with dental care, and yes, it is always done under general anesthesia!

### *Anesthesia Protocol*

Our anesthesia protocol has been reviewed and approved by board-certified veterinary anesthesiologists. We take every possible precaution to ensure the safety and comfort of all our patients from the time they are admitted into the hospital until they





are discharged to go home. Our process is as follows:

1. Pre-anesthetic blood work is required for all animals within three months prior to anesthesia to ensure there are not any concerning underlying abnormalities that could prohibit or delay anesthesia or prompt us to alter our protocol for an animal's specific needs.

2. All patients receive a thorough physical exam the morning of anesthesia by a veterinarian, all vitals are checked and recorded, and all patients have an IV (intra-venous) catheter placed for direct venous access during the procedure.

3. We administer a pre-medication that allows the patient to relax, provides pre-emptive pain relief, and allows us to use lower levels of anesthesia.

4. We use the safest, most current combination of drugs, medications and anesthetic agents to provide the most protected and comfortable experience for your pet. Once induced into an anesthetic slumber via an injection of Propofol, your pet is maintained on gas anesthesia delivered through the endotracheal tube placed directly into the airway. This is done so we can monitor respirations, aid breathing if necessary, and provide oxygen. One of the major benefits of inhaled anesthesia is that it allows fine tuning of how deeply our patient is anesthetized. Additionally, once the gas anesthesia is turned off, the patient quickly and gently begins to wake up.

5. Each and every patient is thoroughly and continually monitored using the most advanced Surgivet monitoring systems including ECG, heart rate, oxygen saturation (SpO2), blood pressure, respiratory rate, capnometer (CO2 output), and body temperature. All patients are supported with specifically calculated rates of IV fluids, necessary medications, and frequently lubricated eyes. We keep your pet toasty warm with an Equator warming blanket.

6. A dedicated technician, under the direct supervision of a veterinarian, stays with every patient from induction of anesthesia until they are fully awake, stable and safe. Once your pet is in recovery, we will always call you to give an overview of the procedure and let you know your baby is safe and sound!

## References

<http://www.avdc.org/ownersinfo.html> American Veterinary Dental College, Haddonfield, NJ

<http://www.avds-online.org/newweb/index.php> American Veterinary Dental Society, Fayetteville, TN (Dr. Jodi Reed has been a member for the past seven years).

<http://www.dogbeachvet.com> Dr. Brook Niemiec, DVM Diplomate, American Veterinary Dental College Fellow, Academy of Veterinary Dentistry. Dog Dentistry, Santa Barbara, CA

<http://www.vohc.org/> Veterinary Oral Health Council, Haddonfield, NJ

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## About the Author:

Dr. Jodi Reed opened Harmony Animal Hospital in Apex NC in 2009. She is a graduate of the University of Florida College of Veterinary Medicine. Dr. Reed is a general practitioner for cats and dogs with special interests in soft tissue surgery, as well as routine and advanced dentistry. Dr. Reed is involved in many veterinary related organizations, including American Veterinary Dental Society (AVDS), American Veterinary Medical Association (AVMA), North Carolina Veterinary Medical Association (NCVMA), North Carolina Academy of Small Animal Medicine (NCASAM) and Wake County Veterinary Association.

## About Harmony Animal Hospital:

Located in Apex NC, you will find a modern facility and up-to-date technology at Harmony Animal Hospital. It is designed to provide owners and their pets with the highest quality Western and Eastern integrated medicine, therapies, dentistry and surgery in an environment committed to compassionate, knowledgeable and reasonable care with individualized options. The Harmony team consists of 9 veterinarians and 50+ staff members. Becoming a member of the Harmony team is a rigorous process. Every team member is highly trained to deliver our promise of exceptional service and veterinary care to our clients and their owners in a friendly and welcoming environment.



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