



6 - 34 Southridge Drive Okotoks, AB T1S 2G5
Phone: 403 938-3791 - Fax: 403 938-3795

VETERINARY DENTISTRY

Why is Dr. Logan recommending my pet has a dental cleaning?

Dental disease is the most common, most diagnosed, most often-recognized health problem we see in our companion animals. Eighty-five percent of all dogs and cats three years of age and older have some degree of dental disease that requires treatment and/or preventative care.

As in people, plaque and tartar build up on the teeth in all animals. Plaque is formed by food particles and bacteria which, combined with salivary secretions, attach where the teeth rise above the gum line. If this plaque is allowed to accumulate unchecked, it eventually causes a variety of dental conditions that range from mild discomfort and bad breath, all the way to root abscesses, tooth loss and difficulty eating.

If left untreated, periodontal disease can lead to systemic disease, showering the lungs and other internal organs with bacteria. This can cause heart, liver, and kidney disease resulting in a shortened life for your pet.

At Foothills Animal Hospital, we feel that pet dentistry should not be an elective procedure, but rather a required component of routine preventative care.

How can I know if my pet needs to have his teeth cleaned?

During every health exam, Dr. Logan will examine your pets' mouth, grade the level of dental disease and will recommend a dental cleaning if one is needed.

To perform an at home exam of your pet's dental health, simply lift your pet's lip and look at his teeth. Don't forget the teeth near the back of mouth as well as the teeth up front. Examine the mouth for yellow or brown accumulation of tartar on the teeth, red or swollen gums and an unpleasant odor. You may see other common problems such as chips or fractures on the tooth's surface. Superficial chips usually cause no problems; however, tooth fractures that expose the pulp or root canal (you may notice a red or black spot on the tooth) allow bacteria to travel up the tooth, eventually leading to an abscessed tooth.

The leading sign of dental disease is bad breath. Dogs and cats should not have unpleasant mouth odor. Bad breath comes from bacteria. If your pet's breath is unpleasant, let us examine his mouth and advise care.



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Wouldn't I know it if my pet's teeth were painful?

Likely not. Most pet owners do not realize that there is a problem with their pet's teeth until the pet stops eating or when their pet gets a swelling due to a tooth root abscess.

Dogs and cats instinctively will hide any signs of discomfort or illness as long as they can. Unlike people, who realize quite soon that they have an abscessed or infected tooth, dogs and cats will suffer low grade, chronic pain from tooth root abscess for years before the problem becomes painful enough to be clinically obvious.

What can I do if there is a problem with his teeth?

Foothills Animal Hospital performs dental procedures daily. Dental x-rays, ultrasonic scaling, polishing, and dental extractions are some of the procedures we offer to our patients. If our clients require more in-depth procedures, such as root canals, we can refer them to a Veterinarian in Calgary with more specialized training.

Does my pet really have to be sedated to have his teeth cleaned?

Anesthesia allows us to evaluate each tooth without your pet feeling any discomfort or pain. Our dental area has a gas anesthetic machine and patient monitoring system. As you can imagine, not too many of our pets would sit still in a chair and let us clean subgingivally while awake! We use a safe anesthetic protocol, one gentle enough to allow your pet to recover and return home the same day that the procedure is performed.

Anesthesia is the primary concern most pet owners have in considering dental care for their pets. It should be noted that in the majority of patients, the benefits of a dental procedure far outweigh the risks of anesthesia. In fact, untreated periodontal disease will result in far more complications than anesthesia.

An anesthetic protocol is selected based on physical examination, diagnostic lab work results, the pet's age and medical history. Every patient receives pre-anesthetic pain medication and sedative. The pet is then anesthetized with a short acting anesthetic through an intravenous catheter to allow placement of an endotracheal tube into the pet's windpipe. This is important to protect the airway during the teeth cleaning and flushing of the mouth as well as allowing a gas anesthetic to be used. The anesthetic is mixed with oxygen in a vaporizer. The vaporizer controls the percentage of gas anesthetic mixture a pet receives. Isoflurane is the anesthetic we use and is considered to be one of the safest gas anesthetics available. After the procedure, your pet is placed on 100% oxygen and recovers quickly by exhaling the anesthetic gas.



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Each pet is constantly monitored during the procedure. The veterinary technician will evaluate the pet's heart rate, respiration rate, reflexes, gum color and jaw tone to evaluate the depth of the anesthetic. Each patient will also have a Cardell Max 12 patient monitor. These monitors measure heart rate, SPO₂, CO₂, temperature and blood pressure. All pets receive an intravenous catheter and IV fluids administered during and the procedure.

Why does my pet need to have pre-anesthetic blood work?

A proper pre-anesthetic work-up will help to identify any hidden health problems that cannot be detected from a physical examination alone. This generally includes comprehensive blood chemistries and a complete blood count. Based on these results, an anesthetic protocol is selected or it may be determined that the teeth cleaning procedure should be held off until any detected health problems are under control. We recommend pre-anesthetic blood panels on all patients over 7 years old and on any patients who are known to have pre-existing medical conditions.

If I am able to scrape the tartar off of my pet's teeth when he is awake, do I still need to have his teeth cleaned by my veterinarian?

While manually removing the tartar from their teeth while awake improves your pet's appearance, it is not adequate dental care. Tooth infection and decay occur because of the bacteria below the gum line. This can only be removed with sub-gingival scaling which is performed as part of your pet's teeth cleaning. Without this sub-gingival scaling, the teeth cleaning process is worthless.

What happens during the teeth cleaning process?

A skilled animal health technologist uses an ultrasonic scaler and hand instruments to remove all the tartar and calculus from above and below the gum line. Once the teeth are clean, a polishing paste is used to polish the teeth smooth, making them more resistant to future tartar development. A periodontal probe and explorer are then used as part of a post cleaning examination. If a probe depth (pocket around the tooth) is greater than 2mm in dogs or 1mm in cats, this indicates that periodontal disease is present and additional treatment may be necessary to save the tooth. A comprehensive oral examination and charting is performed at the time of the teeth cleaning. Dental xrays show the inside of the tooth and root. Our hospital uses the same dental radiograph machine found in your dentists' office. Charting a patient's mouth is the recording of abnormalities in a pet's medical record for future reference or to design a treatment plan. Upon release of your pet to go home, home care instructions on oral hygiene will be outlined in a handout for owners to take home. Our AHT will review tooth



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brushing techniques and your pet's custom-designed oral hygiene program. When performed regularly, brushing, CET chews, and a tartar control diet will greatly increase the intervals between teeth cleaning appointments.

What is meant by the term forl or cat cavities?

Many cats get painful lesions at the gum line that can literally bore holes into the teeth. These lesions are referred to as feline odontoclastic resorptive lesions (FORLs). Recent research indicates that in cats over 5 years of age there is a 72% chance he or she may have one or more teeth with FORL. Some FORL's can be diagnosed visually while others can only be diagnosed by radiograph.

Is the teeth cleaning procedure painful?

Untreated dental disease in our patients is a chronic source of pain. All patients undergoing a potentially painful procedure receive pain medication before beginning the procedure. Local nerve blocks are used as needed to stop pain transmission during the procedure. Post-operatively, a pet may receive another pain control injection and many will have 3-5 days of pain relief medication dispensed. This pain prevention approach greatly limits the discomfort a pet may experience from the necessary dental treatment. Pain control also improves the pet's recovery time and speeds the healing process.

Are dental radiographs really necessary?

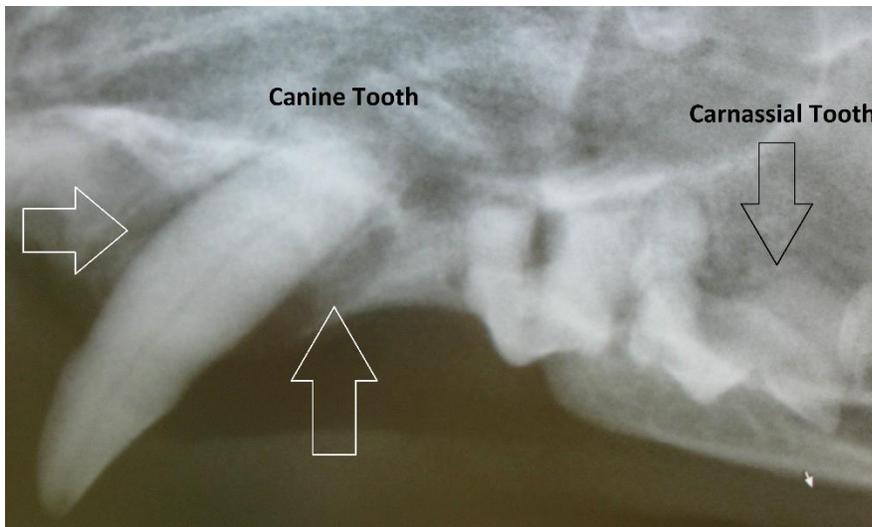
Dental x-rays show the inside of the tooth and root. These radiographs are important because much of tooth pathology lies below the gum line and is not obvious on physical inspection alone. The only way to evaluate the root structure, the inside of the tooth and the supportive bone is to take radiographs. Many treatment decisions are based on these radiograph findings. The x-ray machine we use in veterinary dentistry is the same as in your dentist's office except the presets on the technique chart are of dog and cat teeth. Use of digital x-ray technology improves fine detail of the image and also significantly decreases anesthetic time for your pet.



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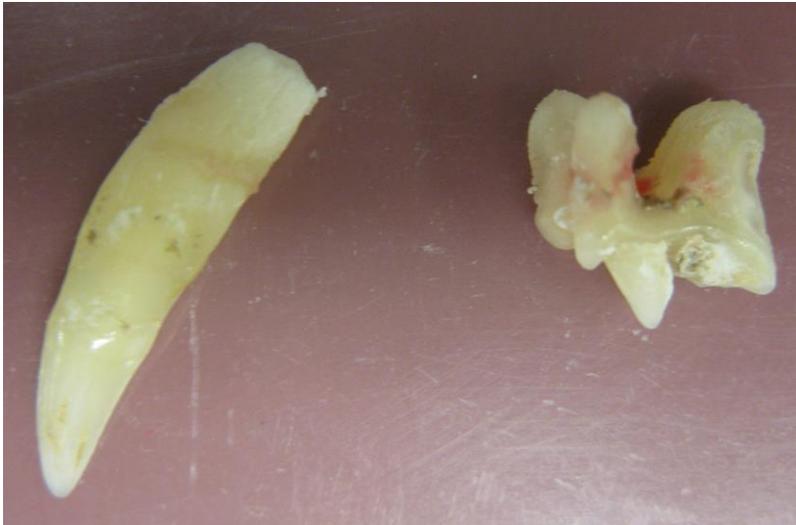
Here is an example of a dental we did. Visually, the teeth did not look too bad but we were able to detect some pockets with the probe.



Radiographs were performed. Large pockets were seen around the canine tooth as well as resorption of the root. The carnassial tooth also shows resorption of the roots.



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Here are the actual teeth we removed.

Some examples of where we would use Dental radiology:

- Mild to moderate periodontal disease. We x-ray periodontal pockets that are greater than normal (>3mm in dogs, >1mm in cats) depth. This allows better treatment planning and follow-up care if we know what is happening below the gums.
- Advanced periodontal disease. A radiograph will show the extent of the disease and prevent root or jaw fractures during extractions.
- Extraction cases to evaluate for root fractures, tooth root abscesses, as well as assisting in the removal of fractured root tips.
- Attrition (tooth loss), or abrasive wear (worn teeth), discolored teeth and teeth with pulp exposure (open pulp canal).
- Resorptive lesions (cavities) in our cat patients. Therapy is dependent on root structure and presence or absence of infection.
- Stomatitis or markedly inflamed gums.
- Oral masses, tumors, and facial swellings. Orinasal fistula (infections of the oral cavity and nasal cavity) diagnosis and treatment planning.

How often will I need to have my pet's teeth cleaned?

It depends on the degree and rapidity of plaque and tartar accumulation. This amount of time is completely pet specific. You can maximize the amount of time between dental cleanings by brushing your pets teeth and using gels or rinses, chews, and a dental diet.



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What can be done with a broken tooth?

If your dog or cat breaks its tooth, there are two treatments: root canal therapy to save the tooth or extraction. Leaving the tooth alone with an exposed nerve is not a humane option. In addition to pain, infection will develop, which can spread to vital organs.

How much does it cost to clean my pet's teeth?

Ask your animal health technologist or veterinarian to devise a personalized estimate for you. It can sometimes be difficult to accurately quote what the procedure will cost prior to the teeth cleaning because we do not know what state your pet's teeth and gums are in until your pet is anesthetized, the tartar and plaque are removed and x-rays are taken.

The fees are based on anesthesia time and any necessary therapy and medications that are indicated. Please be aware that findings due to x-rays and a more thorough oral examination once your pet is asleep, may necessitate further treatments that will add to the cost of your original estimate. You will be contacted during your pet's surgery before any additional work has been completed. This communication is meant to make both Veterinary staff and owners aware of the procedures and their associated costs.

What is involved with home care?

What would happen if you stopped brushing your own teeth? Even if you only ate hard food as some dogs and cats do, there still would be problems. Your pet's teeth must be brushed daily if you can manage it. In order for brushing teeth to be of benefit, you need to brush your pet's teeth no less than once every other day. Once daily is optimal.

Brushing removes the daily accumulation of plaque from the teeth. Undisturbed plaque will result in calculus, which is a hard mineral substance that appears yellow or brown on the tooth surface. If untreated this will lead to gingivitis, pain, infection and loss of teeth. As soon as puppy or kitten teeth emerge, it is time to start brushing. Although baby teeth are replaced with adult teeth, the puppy or kitten gets used to the brushing procedure, which continues for life.

Brushing your pet's teeth is the single most effective means of removing plaque from the visible surface of the tooth. First select a pet toothbrush. A long-handled, soft bristled brush works well for dogs, while a small specially designed brush works better in our cat patients' mouths. Secondly, pet toothpaste needs to be used. Pet toothpastes are designed to be swallowed, taste good to our pets and contain enzymes or antiseptics that help control plaque. Human toothpaste contains too much fluoride for our pets and has detergents that should not be swallowed. Next, we want to introduce the idea of brushing in a gentle manner. Start slowly,



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using a washcloth to wipe the teeth. Then move to the flavored toothpaste on the washcloth. Sometimes applying a small amount of something that the pet really likes on the tooth brush or wash cloth, such as tuna fish oil or peanut butter, helps your pet to more readily accept the brushing process. Once the pet is comfortable with brushing, you can then slowly convert to the pet tooth paste. Over time, you may introduce the toothbrush and soon it will become a routine. The proper technique for brushing teeth is applying the bristles at a 45-degree angle to the gums. We recommend brushing the outside of the teeth (nearest to the lips) only. If possible, circular motions are superior; however, the key is the abrasive action of the toothbrush. Concentrate on the area where the tooth meets the gum line.

Tartar control diets and treats also serve to reduce plaque. Although not as effective as brushing, Medi-Cal and Hills dental diets will reduce the accumulation of plaque and calculus. Mouthwashes and gels contain chlorhexidine for chemical inhibition of plaque formation and can also be used. Alone, these are rarely effective, but when combined with mechanical plaque control (brushing), improved results occur. Exercise toys, rawhides, and other dental treats help reduce plaque to some degree. CET chew bones and Vet Solutions Oral Care Chews are double coated with an enzyme that when mixed with your pet's saliva helps to break down tartar (it also helps with bad breath). These items massage the gum tissue and should be used as a supplement, not a replacement, to tooth brushing. Cow hooves, bones, and hard plastic toys should be avoided as they can fracture teeth.

Even with good home care, most pets will require professional teeth cleanings at regular intervals. Our teeth cleaning and polishing provides an environment which you can then keep clean. The more you do at home, the less we will have to do in our dental suite.

Please do not hesitate to ask one of our helpful staff or veterinarians if you have any questions concerning proper dental care for your pet.



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Stages of dental disease

I. Gingivitis

- gingival inflammation
- variable plaque accumulation
- no bad breath
- no deterioration of supportive structures
- plaque control will reduce pathology



II. Early Periodontitis

- tooth attachment deteriorated by 25%
- mild bad breath
- reddened gums





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III. Moderate Periodontitis

- tooth attachment deteriorated by 25-50%
- moderate to deep pockets in gingival tissue
- bone loss 10-30%
- severe bad breath
- gums are severely reddened
- may need antibiotics



IV. Severe Periodontitis

- antibiotics needed
- extensive gingival recession
- tooth mobility
- severe, bad breath

