

## **Understanding Your Pet's Oral Treatment Plan at Interbay Veterinary Care Center**

At Interbay Veterinary Care Center, dentistry is performed solely by licensed veterinary technicians and veterinarians. While many other veterinary hospitals allow non-licensed personnel to provide this service, we strongly believe that dental procedures can only be performed appropriately and safely by highly trained and educated professionals.

There are many aspects of veterinary dentistry which occur before, during, and after the procedure recommended for your pet. Veterinary dentistry is not just teeth cleaning; it involves multiple, in depth, and complicated procedures, not the least of which is healthy general anesthesia. Dentistry performed inappropriately, or not at all, will significantly impact your pet's health. The following information describes the process of veterinary dentistry at Interbay Veterinary Care Center and the steps that we take to ensure your pet's well-being.

### *Prior to Dentistry*

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- **Labwork:** Blood and urine evaluation is necessary prior to anesthesia and dentistry for all patients. These tests help us to evaluate your pet's overall health, identify any disease processes that should be addressed prior to dentistry, and allow us to determine the safest anesthetic protocol based on any individual circumstances.
- **Antibiotics:** Appropriate antibiotics are prescribed to improve the health of your pet's infected oral tissues prior to dentistry, in order to reduce the risk of oral bacteria entering the bloodstream during the dentistry procedure. While somewhat controversial, the safe use of antibiotics is rarely of greater concern than the damage done by systemic infection. Because many of our pets have far worse dental disease than their human family members, and due to the potential for bacteria to enter the bloodstream during a dental procedure, we believe it is of less consequence and safer for individual patients, to reduce bacteria loads in advance of our ability to understand the true depth of your pet's dental disease. The antibiotic should be started 3 days prior to dentistry and continued for a total of 10 days.
- **Fasting:** We ask that you withhold food (but keep water available) after 10pm the night before dentistry so that your pet's stomach is empty when he or she is anesthetized. This is done to prevent the possibility of aspirating food material into the lungs if a pet vomits or regurgitates while being anesthetized. Once an endotracheal tube (see below) has been placed, your pet's lungs are protected from the risk of aspiration and resulting pneumonia.

## *Day of Dentistry – Prior to Anesthesia*



- Arrival: We ask that you have your pet here between 6:30-8:30am. This enables us to place an IV catheter and start IV fluid therapy (see below). It also gives your pet time to adjust to being here with us before their procedure begins. If you are unable to give the antibiotic that morning, please bring it in with you.
- IV Catheter & Fluid Therapy: Your pet will receive an intravenous catheter, and IV fluids will be started prior to anesthesia. Arriving here early in the morning allows us to initiate fluid therapy well in advance of anesthesia, maximizing the benefits of fluid administration. Providing IV fluids allows us to maintain your pet's normal blood pressure (see below) and is the most important step that we can take in safeguarding him or her from anesthetic complications.

The benefits of IV fluids include:

- sustaining and improving hydration
  - maintaining healthy blood pressure & blood volume
  - ensuring continuous blood flow to all tissues
  - protecting the heart, brain, and kidneys from irreversible damage
  - providing safe, stress-free venous access for medication administration
- Your pet will receive intravenous fluids throughout their stay with us. IV fluids given before and during the dental procedure protect against anesthetic complications, while IV fluids given in the post-anesthetic period facilitate the excretion of anesthetic medications, helping to speed recovery.
  - Pre-Anesthetic Exam: Just as your doctor would examine you before you are anesthetized, your pet will receive a full examination (not just a quick check of vital signs) before the procedure to ensure that it is still safe to undergo anesthesia. Pre-anesthetic examinations are especially important for the 4-legged members of our family since they cannot tell us if they are feeling unwell.
  - Pain Control (Analgesia): Even mild dental disease is painful, due the sensitivity of inflamed oral tissues. Ensuring your pet's comfort at all times is of utmost importance to us, especially because dental treatments are often painful. The best approach to pain control is the use of pain medication *prior* to the onset of pain, to prevent the sensation of pain from occurring at all. Thus, before being anesthetized, your pet will receive an injection of pain medication. The modern pain medications that we use are extremely safe and very effective. At Interbay, we do not consider pain to be acceptable, and we utilize a proactive and preemptive approach

to pain control so that our patients are never uncomfortable. Additional pain control options will be discussed with you if tooth extractions or oral surgery are necessary.

### *Day of Dentistry – Anesthesia*



- Anesthesia: General anesthesia is necessary for professional veterinary dentistry, including a thorough oral examination, oral radiographs (x-rays), scaling, etc. Our anesthesia protocol includes four distinct stages, and administration of anesthesia at Interbay is *only* performed by the veterinarian and licensed veterinary technicians.
  - Stage 1 is the pre-treatment administration of pain medication, as discussed above.
  - Stage 2 involves the injection of a short-acting anesthetic, which allows us to safely place an endotracheal tube (termed intubation). This is a tube that is placed from the mouth into the trachea through which your pet breaths oxygen and the inhalant anesthetic, isoflurane (see below). Additionally, the endotracheal tube protects your pet's airways and lungs from the bacteria-laden material freed from the mouth during dentistry. General anesthesia cannot be safely performed without the placement of an endotracheal tube.
  - Stage 3 is the main stage of anesthesia and is when the dentistry will be performed. During this stage, your pet remains anesthetized by breathing a mixture of oxygen and isoflurane. We use isoflurane because it is one of the safest inhalant anesthetic agents available.
  - Stage 4 is the recovery period, which is when your pet is woken up from anesthesia. Even though the patient is no longer breathing isoflurane at this stage, the recovery period is a critical point in the anesthetic process. It has been reported that the majority of canine and feline anesthetic complications occur during the recovery period. For this reason, it is crucial that your pet be cared for during this period by properly trained, and prepared, veterinary professionals. One of our licensed veterinary technicians will be monitoring your pet closely to assure that they recover properly and safely.

Also during this stage, the endotracheal tube is removed (termed extubation), once the patient is awake and breathing normally. The proper timing of extubation is critical and so must be performed by a veterinary technician or veterinarian. Pre-mature extubation increases the risk of recovery complications, such as aspiration pneumonia or respiratory arrest, while leaving the endotracheal tube in for too long can traumatize the throat and airways.

*The single fact that your pet wakes up from anesthesia does not imply that the anesthesia was performed correctly, or safely. Inappropriate anesthetic protocols used on your pet can not only result in immediate medical problems, but will have*

*significant and permanent effects on his or her overall long-term health. At Interbay, we perform anesthesia correctly, using only thorough protocols and the safest anesthetics, for the well-being of your pet.*

- **Anesthetic Monitoring:** While under anesthesia, your pet's vital parameters will be monitored by a licensed veterinary technician using equipment similar to the devices used in human hospitals. Such parameters include heart rate and rhythm, pulse strength, respiration, blood oxygen level, end-tidal CO2 level, body temperature, blood pressure and general depth of anesthesia. This vigilant monitoring allows us to detect and react quickly to any changes that may occur while our patients are anesthetized. Close monitoring continues after the dentistry until your pet goes home, to make sure that he or she is recovering well.
- **Ocular Protection:** Once your pet has been intubated, a sterile lubricant is placed on the surface (cornea) of each eye. This prevents drying of the eyes, and subsequent ulceration, due to the fact that while anesthetized, the patient's eyes often remain open and they are unable to blink.
- **Maintaining Blood Pressure:** Even with IV fluid therapy, some patients, particularly cats and small dogs, experience an unhealthy decrease in blood pressure (termed hypotension) during anesthesia. Hypotension is the most common anesthetic complication, yet it is routinely overlooked or dismissed. This will never be the case at Interbay. If hypotension occurs, we will start your pet on an IV medication that will help to normalize blood pressure quickly. This is crucial as untreated hypotension can lead to irreversible organ damage and even shock as the body's tissues become starved for oxygen and other nutrients. The blood pressure medication is given continuously through the IV catheter (termed a continuous rate infusion or CRI). The benefit of using a CRI compared to a single injection is that the medication can be rapidly and easily titrated to meet the changing needs of the individual patient.
- **Thermal Care:** All patients, especially cats and small dogs, lose significant body heat while under anesthesia. The resulting hypothermia profoundly impacts heart function, overall metabolism and recovery from anesthesia. We avoid this by continuously monitoring our patient's body temperature and all patients are actively warmed with a recirculating warm water pad and/or a warm air blanket as needed. We do not use conventional electric heating pads because they can cause severe burns.

### *Day of Dentistry – Dental Treatment*



- **Oral Examination and Charting:** The first component of your pet's dentistry at IVCC is a meticulous and systematic oral examination. The level and type of dental disease associated with each tooth is assessed and documented (tartar, gingivitis, tooth mobility, pockets

beneath the gum line, crown defects/fractures, etc). The soft tissue structures of the mouth are also evaluated for any evidence of infection, inflammation, growths, etc. It is not possible to perform such an in-depth examination of the mouth while your pet is awake.

- **Oral Radiographs:** Oral radiographs (x-rays) are necessary for a complete oral evaluation since such a large portion of the teeth and their associated structures lay hidden beneath the gum line. Radiographs allow us to visualize the internal structures of your pet's teeth (underneath the enamel), the roots of the teeth, and the surrounding bone. This enables us to identify areas of tooth decay, bone loss, and infection, that are not apparent to the naked eye. As you know from your own experience at the dentist, proper oral evaluation is not complete without the use of radiographs.
- **Periodontal Treatment:** All plaque and tartar (a cement-like substance that develops on, and is firmly adhered to, the tooth) will be removed from the surface of the teeth using a combination of hand-scaling and ultrasonic scaling techniques. The most crucial part of this procedure is scaling the portion of the tooth within the gingival pocket (the space between the gum tissue and the tooth at the gum line), because this is where a significant amount of tartar and bacteria accumulate and lead to the development of periodontal disease. Accessing and scaling within the gingival pocket is impossible to do when a pet is awake. There is essentially no benefit (although potential significant compromise) to your pet's health if only the tartar on the visible surface of the teeth is removed, leaving behind the tartar and infection below the gum line. After the teeth are scaled, they are polished to smooth out any crevices in the enamel where bacteria and tartar can easily reside. Your pet's mouth is then thoroughly rinsed and a fluoride treatment is applied to strengthen the tooth enamel.
- **Extractions:** Extractions are only included on your estimate if a tooth in obvious need of extraction is seen during your pet's physical examination. On the day of dentistry, we will call you to discuss any recommended extractions based on our oral examination and radiographic findings. At that time, we will also discuss additional pain control options which will be needed if extractions are performed.

### *Day of Dentistry – After Dentistry*



We will call you once the dentistry has been completed and your pet is awake from anesthesia. Typically, our dentistry patients are ready to go home by 5:30pm on the day of the procedure. When you come to pick up your pet, we will discuss our procedures and go over pertinent radiographic and/or photographic images with you. We will also discuss various methods of keeping your pet's teeth clean and preventing the recurrence of dental disease.

Our doctors and team members are dedicated to providing safe, thorough, modern and professional care for our patients. Please do not hesitate to call us to discuss any of the above information and/or our recommendations and oral treatment plan for your pet.

Sincerely,  
Your Interbay Veterinary Healthcare Team

*Next to their pet's safety, the biggest concern that many pet owners have is the cost of dentistry. As you can see, professional, safe, and modern anesthesia and dentistry involve a significant amount of expertise, time and specialized equipment. Many veterinary clinics offer less expensive dentistry but they are lowering costs at the expense of your pet's health and medical care. Cutting corners by not anesthetizing or intubating patients, not keeping patients warm, skimping on pain medications, neglecting anesthetic monitoring, permitting hypotension, negating x-rays, or having untrained personnel performing dental procedures, can save money, but the real price is decreased comfort, health, and safety for your pet.*

*We only provide properly-performed veterinary dentistry, which is the only protocol that your pet would choose, if given the choice.*

~ Caring For Pets And The People Who Love Them ~

