SANTA CRUZ VETERINARY HOSPITAL
A SPECIALTY REFERRAL PRACTICE

Dental and Periodontal Disease in Dogs – Why there is so much of it, and What to do about it

It is a fact that 80+ % of adult dogs and cats by 2 years of age have diseased teeth and gums. Some breeds (such as Chihuahuas and all sighthounds) are affected at 100%, unless their humans take active measures against it. This is mostly a function of civilization and modern lifestyle. In the wild, carnivores use their teeth to cut and rip prey into chunks of a size that can be gulped. This involves cutting tendons, hide, muscle and bone – for which domesticated dogs are perfectly adapted by having a set of shearing and pinching teeth. Modern dogs and cats, however, receive small, concentrated kibble to eat, and as a result rarely use their teeth in any mechanically engaging way. Never brushing or flossing either, it is no surprise that their beautiful teeth become encrusted with calculus and plaque in a short time. Virtually all cats develop lesions in which the hard enamel tooth surface disappears and causes continuous pain and inflammation. The tooth eventually completely disintegrates – a process that can take years - of daily pain and misery, not just when eating, but when drinking and grooming.

Healthy mouth (left), and marked dental plaque and gingival disease (right)

Despite common belief, commercial kibble has no protective effect on teeth at all. Most pets swallow it whole, and those kibble that do end up between two teeth tend to shatter and crumble, at best touching the tips of teeth. Calculus, however, builds along the entire crown of a tooth, first along and beneath the gum line. It takes 24 hours for bacteria to form a scaffold across the tooth's surface, and in 36 hours, calcium from the saliva attaches and cement-like calculus develops. Dry food has the same "cleaning" effect that eating pretzels would have for us. Imagine going 15 dog years (or 2 human years) without brushing! How about 57 years (or 8 human) without ever brushing or a single cleaning at your dentist's office?

Unfortunately, the outward signs of dental problems may be subtle, including slowed eating, reduced excitement at meal times, a preference for soft foods, or bad breath. In severe cases, decreased social interaction, no longer playing with/tossing toys, snapping at people or other pets, and generalized withdrawal from normal activities may be observed. Most of the time, though, the onset of dental disease is so gradual that our pet can compensate and outwardly appear completely normal to us. While we might think that our friend would stop eating if in dental pain, this is usually the last thing to happen.

Severe and chronic dental plaque and abscessed gingiva in a dog

By the time plaque and gingival disease is usually noted, a thorough professional cleaning is the only thing that will reverse the disease. Unfortunately, this can only be done under general anesthesia. In order to correctly evaluate and treat the teeth of any dog or cat, we need to be able to inspect and chart them, and probe under the gum line on all sides of each tooth. Frequently, sub-gingival pockets and disease are found that require taking intra-oral x-rays. Fractured crowns and abscessed roots are often discovered

that had no outward sign. Simply scraping off the calculus on the outside of teeth will miss the full extent of the disease, and lead us to erroneously believe that we have just taken care of the problem. While we all worry about anesthesia, especially when pets reach older ages, the procedure can be done very safely today. It does mean taking precautions in the preparation and treatment. All patients undergoing anesthesia need to have a prior physical exam and lab work to assess their overall health. On the day of the dental therapy, IV fluid support and careful monitoring is required. Only the safest anesthetic protocol should be used (the same as is used for people), and the patient should be handled very carefully – kept warm and comfortable, antibiotics and pain relievers administered as needed, blood pressure and systemic health monitored. While this requires a lot of veterinary effort, as well as cost to the owner, it does mean that the procedure can be carried out safely. With careful and thorough therapy, a painful and infected mouth can become clean and healthy once again, and the overall health of our friend is enhanced. Non-anesthesia "therapy" can never provide any of the above. At best, calculus on the outside of a tooth can be scraped while the dog is struggling to free herself from a completely unnatural, not-to-her-explained procedure. More likely, the scraping misses sub-gingival disease, causes injury to the gums, and potentially leads to aspiration of liquid and calculus that can culminate in potentially fatal pneumonia. How would one take x-rays or probe along the gum line in an awake dog? How about scaling the tongue-side of teeth? Applying fluoride to minimize adverse effects on enamel after scaling the tooth's surface? It cannot be done safely, no matter how much we wish for it.

Greyhound during dental and periodontal therapy with anesthetic monitoring and support

Following treatment, the long term dental health of our pets can be maintained by regular home care. The cornerstone of this is daily brushing of the teeth using a pet toothbrush and veterinary toothpaste, perhaps complemented by dental diets, chews, and rinses. Daily brushing will disrupt the film of tartar that develops in 24 hours. Focus on brushing the outside (next to the cheeks) of the teeth, 30 seconds on each side and in front. Veterinary tooth pastes taste good and contain ingredients that have prolonged anti-bacterial effects that do not need to be rinsed off – making brushing easier and more fun for everyone! Give your dog a treat immediately after brushing, and before you know it, even an old dog can be taught this simple, healthy new trick. And perhaps he'll never need to be treated under anesthesia for bad teeth again!

Please brush my teeth!