



PURINA Pro Club

Chihuahua Update

Vol. 7, No. 1 ■ June 2008

Oral Disease Considered Common Problem in Chihuahuas

In her 30 years' experience as a Chihuahua breeder, Linda George has had many proud moments. She bred the only Chihuahua to win the Toy Group at Westminster, CH Ouachitah For Your Eyes Only, a Smooth-Coat Chihuahua who won in 1984. She also bred the top two sires in the history of the breed — CH Ouachitah Beau Chiene and his littermate brother, CH Ouachitah Kodiak.

More than once, George has seen dental disease cut short the show career of a potentially outstanding Chihuahua. "Dental disease can be one of the most devastating health problems in Chihuahuas," says George of Waukesha, Wis. "Just about the time they start coming into their own, when you have a mature dog in wonderful condition and full coat, they start losing their teeth."

Dental disease also creates havoc by affecting an animal's overall health and well-being. "Bad teeth can be catastrophic," George says. "These dogs can suffer from kidney, liver and heart disease due to neglected teeth. I don't think most people appreciate that other health problems can occur because

of lack of dental care. Over the years, I've done everything possible to keep my dogs' teeth healthy and still sometimes had problems."

Oral disease is the No. 1 health problem diagnosed in dogs. Without

Signs of Oral Disease

- Bad breath
- Loose teeth or teeth that are discolored or covered in tartar
- Shying away when the mouth area is touched
- Drooling or dropping food from the mouth
- Bleeding from the mouth
- Loss of appetite or loss of weight

Source: American Veterinary Dental College (www.avdc.com)

proper dental care, 80 percent of dogs show signs of oral disease by age 2, says the American Veterinary Dental Society. Oral disease is a problem particularly in toy breeds, such as Chihuahua.

One study of 1,300 dogs showed

that periodontal disease decreases significantly as dogs increase in size. The report, published in the October 1994 issue of the *Journal of Veterinary Dentistry*, documented that toy breeds have high rates of disease when compared with small, medium and large breeds. Not surprisingly, periodontal disease was shown to increase significantly as dogs age.

Plaque accumulation, gingivitis and calculus formation initiate a more serious canine oral problem. Periodontal disease, or gum disease, can occur causing bacteria in the mouth to permeate into the surrounding bone, resulting in bone destruction and the possibility of more serious health problems should bacteria enter the bloodstream.

"Usually when dogs are less than 20 pounds, we begin to see more dental disease," explains Bill Gengler, D.V.M., DAVDC, associate dean of clinical affairs at the University of Wisconsin-Madison School of Veterinary Medicine. "This is because toy dogs have a much higher ratio of tooth to jaw that contributes to the

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New Vaccine and Natural Bone Product Available for Periodontal Disease

Veterinary dentistry has seen two noteworthy advances in recent years. A new vaccine was first available in 2006, and a natural bone grafting material that helps to replace bone lost around teeth due to periodontal disease was recently introduced.

The vaccine targets three species of *Porphyromonas* bacteria found in 76 percent of dogs with periodontal disease. "An animal naturally produces saliva and cervical fluid, a fluid rich in antibodies that fight these bacterial organisms," says Bill Gengler, D.V.M., DAVDC, associate dean of clinical affairs at the University of Wisconsin-Madison School of Veterinary Medicine. "The vaccine encourages an animal to produce additional antibodies to fight these bacteria."

"The use of this vaccine in toy breeds is very important because they are so prone to periodontal disease," says Sandra Manfra Marretta, D.V.M., DACVS, DAVDC, professor and head of small animal dentistry at the University of Illinois. "In small-breed dogs, we recommend the first vaccination at about 6 months of age.

A dog will receive a booster three weeks later and an annual booster thereafter."

The new bone grafting material, called Osteo-Allorgraft, "is made of frozen canine cancellous and cortical bone chips," explains Manfra Marretta. "It is a combination of very small pieces of freeze-dried canine bone and demineralized powder that is placed in deep pockets around a tooth when there is bone loss secondary to periodontal disease.

"This product can actually help eliminate pockets that were previously difficult to treat and can help provide greater strength to a jaw that has been weakened by bone loss secondary to periodontal disease," she says. "This product is placed in bony defects during a dental procedure performed by a veterinarian familiar with advanced dental techniques. Not only does it help to increase bone growth in areas of loss around a tooth thereby helping to prevent tooth loss, it also can prevent fractures of the lower jaw by stimulating new bone production in cases of severe bone loss."

Oral Disease

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overcrowding of teeth. This makes it difficult for them to clean teeth naturally through chewing or for an owner to clean by brushing. Plaque containing bacteria can accumulate in inaccessible areas, setting in motion the process that results in gum disease and tooth loss.

"Keep in mind, too, canine incisor teeth have less bone covering them, and periodontal disease can cause aggressive bone loss around teeth," says Gengler, a board-certified veterinary dentist. "With less bone covering teeth in the first place, incisors often loosen and fall out early in the disease."

Another potential contributor to periodontal disease in toy dogs is diet. "Smaller dogs may be less involved in chewing than larger dogs are," Gengler says. "Plus, owners may feed soft food, which does not have the abrasive qualities of a dry kibble that is needed to loosen plaque from the teeth."

Plaque Buildup Problems

Oral disease is an inflammatory response to plaque bacteria that accumulates at the gingival margin, or where the gum and teeth meet. While some dogs suffer only mild gingivitis without complications, others develop irreversible periodontal disease, says Sandra Manfra Marretta, D.V.M., DACVS, DAVDC, professor and head of small animal dentistry at the University of Illinois.

"Periodontal disease results from a buildup of soft dental plaque on the surfaces of teeth around the gum," explains Manfra Marretta. "Plaque is a filmy mixture comprised of accumulated food particles, saliva and bacteria. If plaque accumulates, bacteria can irritate the gum tissues, often leading to infection in the bone surrounding teeth."

As saliva is deposited on plaque, calcium salts from the saliva harden into a yellow or brown dental tartar known as calculus. Tartar forms within a few days on a tooth surface that is not kept clean, providing a rough surface that enhances further plaque accumulation. Once it begins to thicken, tartar is difficult to remove without dental instruments.

"In advanced disease, destruction of the periodontal ligament, which attaches the tooth to the surrounding bone, is destroyed, resulting in the eventual loss of teeth," says Manfra Marretta, a board-certified veterinary dentist. "In small-breed dogs, advanced periodontal disease may also cause the jaw to break because of bone loss."

Unfortunately, dogs may not give their owners obvious signs of severe oral pain. The first indication of an oral problem that most owners recognize is a dog's bad breath. Reluctance to eat or chew on rawhide treats or toys, bleeding gums and excessive salivation

Ten Steps to Brushing Your Dog's Teeth

1. Use a dog toothbrush, human battery-powered spin toothbrush, nylon bristle child's toothbrush, rubber finger brush, washcloth or piece of gauze and pet toothpaste. (Ask your veterinarian if your dog needs one with special abrasives or extra enzymes.)
2. Position yourself on one side of your dog's head and use one hand to lift at the corner of the mouth and the other to manipulate the brush.
3. Aim bristles at a 45-degree angle to the tooth, with bristles pointing toward the gum line. Brush along the line where the gum and tooth meet, which is where gingivitis starts.
4. Brush with an oval motion.
5. Distribute toothpaste over each tooth as you brush.
6. Brush all sections of the mouth, including upper and lower incisors (front teeth), upper and lower left arcades, and upper and lower right arcades.
7. Brush each tooth, paying particular attention to common problem areas: upper canines ("fangs") and upper fourth premolars, or the large shearing teeth toward the back of the mouth.
8. Brush outer surfaces of all teeth and, if possible, the inner surfaces though less plaque builds up on the inner surface.
9. Examine your dog's mouth for any unusual swelling, chipped or broken teeth or bleeding gums.
10. Be patient and praise your dog.

Source: Animal Network (www.dogchannel.com)

are other signs. Any abnormality, such as loose, broken or discolored teeth or facial swelling, warrants a visit to the veterinarian.

If tartar accumulates, the gums begin to recede or pull away from the teeth. The resulting gaps between the teeth and gums allow more bacteria to accumulate. These bacteria cause the loss of bone surrounding the teeth, which leads to loosening of teeth and eventual tooth loss. The inflamed tissues also provide easy access for bacteria to enter the bloodstream and potentially lead to disease in other parts of the body.

Daily Attention Is Key

Preventive steps to avoid canine periodontal disease are essential. The American Veterinary Dental College recommends starting at an early age with dental home care. Regular brushing and taking steps to prevent the accumulation of dental plaque are encouraged. This includes feeding a dry food and providing chew toys. These steps combined with periodic professional cleaning involving dental scaling under anesthesia help to optimize lifelong oral health for dogs.

"The most important thing in preventing tooth decay and loss is daily attention," Gengler says. "Brushing, using specialized mouth rinses, and taking dogs for professional cleaning are all important. You can't practice just one and expect great results. You should utilize all the resources you can."

At her Ouachita Kennel, George practices regular dental care. "Once the puppy teeth have fallen out, I brush each dog's teeth every other day," she says. "All dogs have monthly scaling to clean the hard-to-reach back teeth. I also use a mouth rinse. I dip a soft baby toothbrush into the rinse and

brush my dogs' teeth with it. I've been using the rinse for two years and have only had one dog lose one tooth during this time."

Dental disease is a progressive condition. Owners who get a good start on practicing good oral hygiene help to reduce problems later in a dog's life. As Linda George says, "Dental hygiene can't be emphasized enough." ■

Purina appreciates the support of the Chihuahua Club of America and particularly Kim Gramlisch, chairwoman of the CCA Health Related Issues Committee, in helping to identify topics for the *Purina Pro Club Chihuahua Update* newsletter.

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