

# A New Dawn in Dentistry

Advanced tools and techniques speed healing

by Arden Moore

**S**evere gingivitis. Decayed teeth. Broken jaws. Dogs, like people, aren't invincible to dental disease or orthodontic problems. Eight of every 10 dogs lacking regular dental care show some signs of periodontal disease by the age of 3, according to the American Veterinary Dental Society, based in Nashville, Tenn.

Bacteria, combined with food debris and saliva lodged between the teeth and gums, can cause gingivitis. Untreated, the consequences include bleeding gums, tooth loss and even serious illnesses, such as kidney, liver or heart disease.

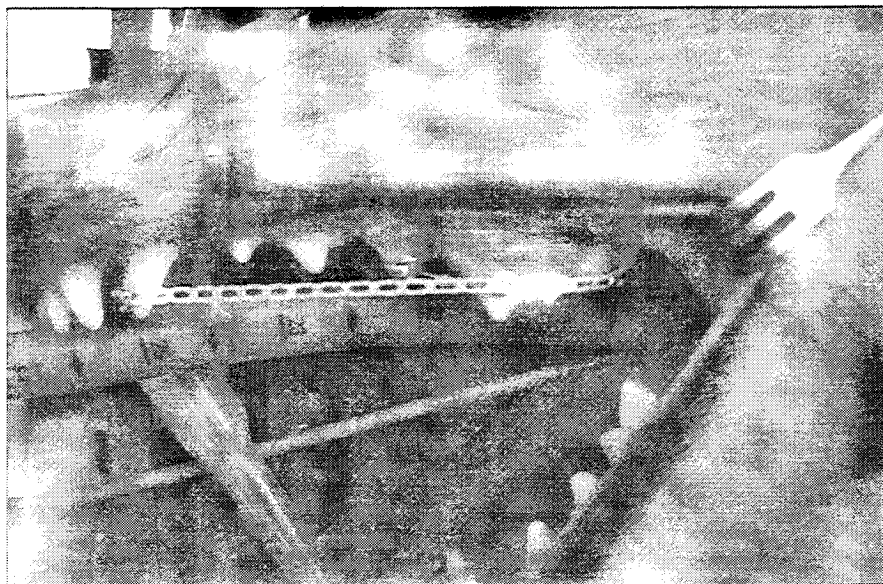
Traditional surgical treatment often required bulky metal materials that hindered a dog's ability to eat and prolonged periods with the dog under general

anesthesia. Fortunately, new, less invasive dental tools and techniques are easing the pain and speeding the healing in dogs facing severe dental problems.

"In the field of veterinary dentistry, there is literally a revolution occurring," said Peter Emily, DDS, a member of the American Veterinary Dental College and a nationally renowned dentist who treats both people and animals. He's the director of animal dentistry at Colorado State University College of Veterinary Medicine in Fort Collins. "We still have many unanswered questions, but we are definitely making progress at a rapid rate to improve the lives of dogs and cats."

## Extending Life

Advances in veterinary dentistry enable greater success for



A veterinary dentist checks the braces on a 7-month-old Sheltie. Her upper canine teeth had been pointed forward, and the braces have been moving them to their normal position.

## 6 Preventive Tips For A Healthy, Pain-free Mouth

Avert costly dental bills and help ensure your dog's mouth is pain-free by taking preventive measures, said Steven Holmstrom, DVM, past president of the American Veterinary Dental Society who operates the Animal Dental Clinic in San Carlos, Calif. He recommends all dog owners:

1. Watch for signs of dental problems exemplified by bad breath, drooling, dropping toys, bleeding from the mouth, a change in eating or chewing habits, or persistent pawing of the mouth or face.
2. Examine your dog's teeth and gums at least weekly. Look for pale or bleeding gums, tartar and broken or missing teeth.
3. Book an annual dental exam for your dog. A professional dental cleaning may be necessary to remove plaque and tartar buildup above and below the gum line. The cleaning removes bacteria that can cause gum disease.
4. Brush your dog's teeth regularly - at least three times a week with dog toothpaste. Get your dog used to brushing by first dipping your finger into beef bouillon and then rubbing your finger gently over his gums and teeth. Gradually add gauze over your finger and gently scrub the teeth in a circular motion. Finally, introduce a soft toothbrush designed for dogs and use a meat-flavored toothpaste made especially for dogs.
5. Provide your dog with special foods or treats that reduce plaque and tartar that are recommended by your veterinarian.
6. Provide fresh water daily. Bacteria can build up inside bowls containing water more than two days old.



A weekly check of your dog's mouth — looking for pale, bleeding gums or broken teeth — can reveal dental problems early on.

complicated procedures, such as dental crowns, braces, root canals and jaw reconstruction. A healthy mouth can actually extend the life of a dog, said Laura LeVan, DVM, Dip. AVDC, a veterinary dentist in private practice in Acton, Mass.

Dr. LeVan, like many other veterinary dentists, works closely with dentists who treat people to stay current on the latest tools and techniques. "We basically use the same materials as are used in human dentistry," she said. "My own dentist has been a good supporter and help to me. I belong to the Massachusetts Dental Society, and I attend the human dental meetings here every year. I find that dedicated dog owners are delighted that we can give the same type of care for their animals as they receive from their dentists."

Among her success stories is Bitsy, a 14-year-old, 4½-pound Yorkshire Terrier. When Dr. LeVan was on the faculty at Tufts — where she still has an

appointment as clinical assistant professor — Bitsy came there with an infected jaw and risked the possible extraction of a canine tooth. Dr. LeVan used a new synthetic bone material called osteopromotive to fill in the bony defects around the tooth and try to save it.

"If a dog loses a tooth as key as a lower canine, there is not much hard tissue support along the

jawbone," she said.

Roseann Foster, Bitsy's owner, who lives in Hopkinton, Mass., credited Dr. LeVan with a remarkable accomplishment: "She was able to save and stabilize Bitsy's canine tooth to help shape her jaw. We were able to pick up Bitsy at the end of the day, and the next morning Bitsy ate a full meal and was happy-go-lucky as ever."

Foster recognizes the value of at-home dental care, too. She brushes Bitsy's teeth with a beef-flavored toothpaste every day.

## Periodontal Disease

"When Bitsy was about 6, she developed periodontal disease, and several of her teeth had to be removed," Foster said. "We started her on a brushing program and do not feed her snacks. We want Bitsy to have a long life with us and a healthy mouth is key."

Steven Holmstrom, DVM, immediate past president of the American Veterinary Dental Society in private practice in San Carlos, Calif., performed his first root canal on a dog in 1974. The field of veterinary dentistry is making unprecedented strides in speed and efficiency of care, he said. "We are able to do fewer extractions and save more teeth, thanks to new materials and techniques available in the past few years. The lower canine teeth, for example, act as guides for the tongue. If they are extracted, the tongue hangs out of the mouth, and the dog is at risk for biting his tongue."

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Leaders in the field of veterinary dentistry identify these major advances:

### ► New bonding materials:

"Before, we were not able to bond the material to the tooth enamel," Dr. LeVan said. "But with the newest generation of bonding material, we can build up a tooth much better so fillings don't fail."

► **New handheld dental tools:**

ProTemp, resembling a handheld caulking gun, emits bonding material that veterinarians can use to repair even complex problems like bilateral jaw fractures, broken or chipped teeth. The handheld tool allows veterinarians to apply material in a dog's mouth with better aim than other tools. The material inside the

the sharp instruments inside the mouth during teeth cleanings, dentists have had to place dogs under general anesthesia. However, in certain procedures, such as removing a tooth, veterinarians supplement it with local anesthesia. Dogs then don't need to be as deep under general anesthesia. "There is less post operative pain for the dog," Dr. Holmstrom said.

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tool itself cures - makes it stable - without the need for heat.

"Older materials generated heat and would temporarily burn a dog's mouth - but the only way to cure it was by heat," Dr. Emily said. "ProTemp is easy to use and certainly more humane to dogs."

► **Local anesthesia use:** Because of

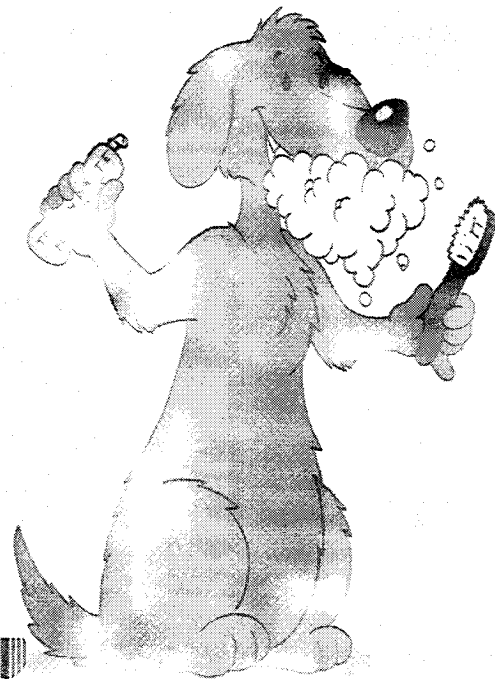
► **Synthetic bone-grafting**

**material:** This new material acts as a matrix where new bone forms, reducing the need for the practice of taking bone from another part of the body and transplanting it in the dog's mouth to encourage bone growth. "With this new material, you can inject right into the bony defect and get 90 percent filled and have fewer complications," Dr. Emily said.

Cost of the procedures depends on locale and individual dentists. Owners might want to get estimates from several qualified veterinarians.

"In many cases, we can take in a dog with a sick, unhealthy mouth in the morning and send home a healthy dog by the end of the day," Dr. LeVan said. "You can truly make a major difference in a dog's life through dentistry - it is a very gratifying field."

*Arden Moore of Oceanside, Calif., is a regular Your Dog contributor and the "Healthy Pets" columnist for Prevention magazine. Her latest book is Real Food for Dogs (Storey Books).*



**Maxillary Brachygnathism? It's An Under Bite**

Here's a list of key definitions in canine dentistry:

**PERIODONTAL DISEASE** - Refers to inflammation of some of the tooth's support caused by bacteria that leads to plaque buildup on teeth and bone loss below the gum line.

**OCCCLUSION** - a normal bite for a dog. Refers to the alignment of teeth.

**MALOCCLUSION** - An abnormal bite for a dog. Refers to the misalignment of teeth.

**MAXILLARY PROGNATHISM** - Informally known as an overbite, this condition occurs when the dog's upper jaw is longer than the lower jaw.

**MAXILLARY BRACHYGNATHISM** - Informally called an under bite, this condition occurs when the dog's upper jaw is shorter than the lower jaw. Veterinary dentists can correct both over bites and under bites.

**ANODONTIA** - Missing teeth.

**SUPERNUMERARY** - Extra teeth. Adult dogs normally have 42 teeth.

**PERIAPICAL GRANULOMA** - Tooth abscess.

**ENDODONTIC TREATMENT** - Tooth canal treatment.

**Looking for A Doggie Dentist?**

To locate a veterinary dentist in your area, contact the American Veterinary Dental Society at (800) 332-AVDS. It has more than 1,000 active members worldwide.