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Canine Dental Care: An Owner's Responsibility

by Shirlee Kalstone

Proper dental care at home can help prevent the early loss of teeth. Dog owners, however, often know surprisingly little about a dog's teeth and may neglect dental care. They brush, bathe, and trim their dogs to perfection but often forget to look inside their mouths.

Anatomy and Physiology

The dog belongs to the order Carnivora, or flesh-eating animals. The chief attribute of this predatory order of animals is the specialization of the jaws and teeth to efficiently seize and chew their prey. For instance, the dog's four tusk-like canine teeth (two in the upper jaw and two in the lower jaw) are always long and pointed to weaken, hold and slice its prey; the premolars and molars behind the canines are wider and have cutting edges to grind and chew the flesh. The first huge lower molar and the fourth upper premolar (known as the Carnassials) form a special shearing action. They operate like scissor blades and cut flesh into pieces. Even the dog's smallest teeth, the front incisors, help it to clear flesh off the bones of its prey.

Like humans and most other animals, dogs get two sets of teeth: 28 deciduous or temporary teeth, and 42 permanent teeth. Puppies are usually born without teeth. The temporary or "baby" teeth which are softer, thinner, and sharper than the permanent set, begin breaking through the gums between two-to-three weeks of age. Generally, large breeds get their baby teeth sooner than small breeds. The baby teeth consist of incisors, canines and premolars. Puppies do not have molars. By the time the puppy is six weeks old, all 28 deciduous teeth usually are in place.

Diet and immunization are important to a puppy's dental health. Disease or nutritional deficiencies can permanently damage the tooth enamel. Elevated temperature caused by distemper, or antibiotics used to treat the disease, may cause the enamel of the permanent teeth to become pitted and yellow. Antibiotic discoloration may be temporary, affecting only the baby teeth, or may be permanent. Hepatitis and leptospirosis also can affect the development of tooth enamel. Puppies, therefore, should eat well-balanced diets and be vaccinated against distemper, hepatitis and leptospirosis at the proper time.

Teething

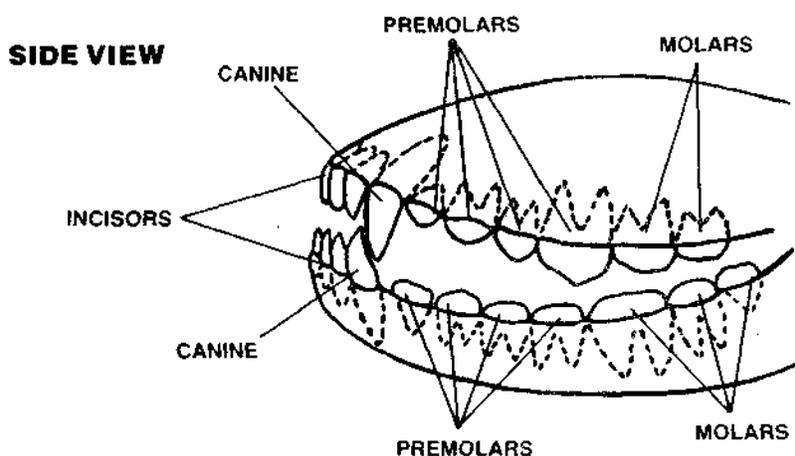
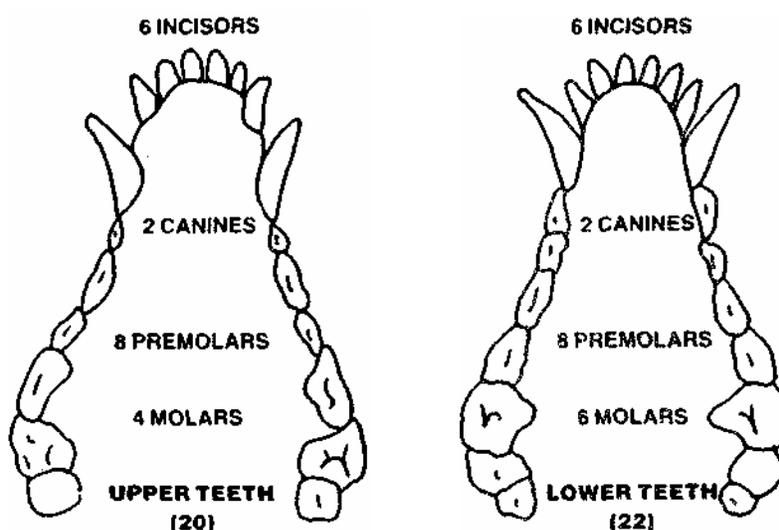
Between 12 and 14 weeks of age, a puppy's baby teeth begin to loosen and fall out as the permanent teeth start coming in. The first teeth to appear are generally the incisors, followed by the canines and the premolars. The molars are the last to come in. With the exception of the tusk-like canines (one in each quadrant), the baby teeth are loosened by pressure from the permanent teeth



growing underneath. The permanent canines can erupt through the gums alongside the baby canines, not directly underneath, and both teeth may remain in the gums for some time.

When a puppy is teething, its mouth should be checked regularly to see that the deciduous teeth are problem-free. Check the canines especially for double-teeth (retained baby and permanent teeth in the same spot). If any are present and appear to be causing displacement of the permanent teeth, have your veterinarian pull the baby tooth to avoid later bite problems. Puppies should be examined by a veterinarian at two-to-three months of age and again at six months to check for a normal bite.

THE DOG'S TEETH





When a puppy is teething, it has swollen and irritated gums and acts much like a teething baby, trying to put anything available into its mouth for relief. Give the puppy safe things to chew on; they'll help to loosen the baby teeth, relieve the irritation of sore gums and aid normal jaw development. Rawhide chips, bones, and chewy twists; hard rubber balls and rings; and nylon bones will be welcomed by the puppy at this time, and they will keep your furniture, rugs, and shoes from being chewed up. But never give a teething puppy a toy that can be swallowed whole or chewed apart into small pieces and swallowed to cause a possible intestinal obstruction. Noisemakers on squeaky toys should be non-removable, otherwise remove them to keep your dog from swallowing them. Avoid toys stuffed with sawdust or pellets at this time if they can be torn apart easily. A cold knucklebone (one that cannot splinter) will help soothe the irritated gums, but never give chicken, steak, chop or rib bones to a puppy, as the sharp pieces can become lodged in the throat or pierce the intestinal wall.

The permanent teeth (the normal number is 42) should be in place between six and seven months. The upper jaw has 20, consisting of six incisors, two canines, eight premolars and four molars. The lower jaw has 22, consisting of six incisors, two canines, eight premolars, and six molars. Some bloodlines carry mutant genes for missing teeth and others for surplus teeth. Certain breeds, unfortunately, may not have a jaw structure with adequate space for 42 teeth. The result is missing teeth or a crooked bite caused by the pressure of one tooth on another.

Preventive Dental Care

As soon as the permanent teeth are in place preventive dental care should begin. Proper nutrition, plus home dental care combined with regular veterinary checkups will contribute to good teeth in a mature dog. Clean teeth and healthy gums are important to a dog's general health. The teeth should be examined by a veterinarian semi-annually and cleaned if necessary. Dogs are subject to all the dental ailments that affect human teeth: tartar buildup, loose teeth, tooth root abscess, gum inflammations, cavities, and tumors of the gums and teeth. Tartar and secondary gum infection are the most common problems. And when the tartar buildup is heavy on a dog, a veterinarian has to administer an anesthetic to clean its teeth.

Between professional checkups, a dog's teeth should be inspected and cleaned regularly at home. The object of home care is to control dental plaque, a sticky, invisible film of food particles, saliva, and bacteria which clings to the teeth. Plaque which collects between the teeth and around the gum line will build up if it is not removed soon after forming, and eventually mineralize into a hard, brown substance known as tartar or calculus. The high alkaline pH of canine saliva stimulates the conversion of dental plaque into tartar faster than in humans. The gums, irritated by the tartar buildup become swollen and inflamed. Then the dog's breath smells foul. If the condition is ignored, the irritation can spread to



deeper tissues and the bone in which the teeth are embedded. Pockets form around the teeth and they loosen. If the buildup of plaque and tartar still remains untreated, a general infection can develop which may result in the loss of several teeth while the dog is young, or even in early death. Cavities are almost non-existent in dogs but when they do appear, they look like black marks on the tooth or near the gumline. Extraction is the common solution but it may be possible for a veterinarian to fill the cavity and save the tooth.

How To Clean The Teeth

Train your dog from puppyhood to have his mouth opened and his teeth examined so he will be cooperative when the teeth need to be cleaned.

The easiest way to prevent the buildup of dental plaque is to clean the teeth regularly with one of the following:

1. Baking soda with a little water added to make a paste.
2. A flavored toothpaste for dogs which contains abrasive agents and is totally digestible. Don't use human toothpaste - it often causes stomach upsets.
3. A saline solution.

Clean the teeth with a soft children's toothbrush for small and medium-sized breeds, or a regular brush for large or giant breeds. Brush the teeth as you do your own: Use gentle, circular scrubbing strokes on each side and don't forget the biting surface of the back teeth. If your dog objects to a toothbrush, wrap a piece of soft gauze bandage around your index finger, dip it into the soda mixture or squeeze some toothpaste on it, and rub gently over the teeth. Experts say, however, that gauze is not as efficient as a toothbrush because one cannot wipe below the gumline. After the teeth are cleaned, put a little water into a plant mister and spray the dog's mouth to rinse away the cleaning mixture.

Owners who wish to scale light accumulations of tartar from the teeth should heed the advice of Tawnya Bobst, a Dental Hygienist, in an article in Poodle Variety magazine, who recommends the use of a curved hoe-shaped instrument (double-edged to fit both right and left sides), plus cotton balls and hydrogen peroxide. Do not, Ms. Bobst cautions, use a sharp-pointed sickle-shaped scaler because it could lacerate the tissue. "Begin with the canine teeth because they are in the front of the mouth and easily reached. Slide the instrument over and under the deposit until you feel it touching the tooth enamel. You may find it will have to go slightly under the gum tissue. If this is the case, take care not to catch the gum tissue in it as you can lacerate the gum."

Ms. Bobst continues, "Once the instrument is under the deposit and touching enamel, gently apply pressure as you pull on it and the deposit should pop off in one piece. Always pull away from the gum when scaling. Now wipe the tooth



with a cotton ball dipped in hydrogen peroxide to help prevent infection and kill the bacteria that lives under the gums."

One action that helps settle my own dogs before scaling is to spray their gums lightly with Chloraseptic Mouth Wash. It's both anesthetic and antiseptic and seems to make them relax.

The very humane Ms. Bobst also suggests that owners practice moving the scaler over the teeth several times a week at short intervals without attempting to clean them until a dog begins to relax. Keep in mind that any bad experience in handling a puppy's mouth could cause him to become "mouth shy" in the show ring.

In conclusion, feed your dog a balanced diet and restrict "people" treats such as cookies and candy. Feeding dry biscuits as treats instead will help keep the teeth clean. This does not, however, prevent the formation of plaque around the gingival crevice and the teeth still need to be cleaned regularly. So why not make mouth inspection and teeth cleaning a regular part of your grooming routine?