FOOD & NUTRITION

Munching, crunching, and guzzling your dog's way to cleaner teeth

don't eat crackers, chew taffy, or drink sports drinks in place of brushing my teeth. Why should my dog?

Mainly, because I do brush my teeth. Twice or more a day. But as much as I know I should brush my dogs' teeth, I don't.

I'm not alone. A recent survey revealed 45 percent of people never brushed their dogs' teeth, and 80 percent said they had not brushed them in the last month. Daily brushing is the gold standard when it comes to preventing periodontal disease, but it's timeconsuming and can be a battle.

Yet lack of brushing can lead to periodontal disease, which affects up to 85 percent of adult dogs. Small dogs and toy breeds are particularly affected. It starts with plaque buildup, which can lead to gum inflammation and recession, tooth loss, bone loss, bad breath, and pain. The plaque harbors bacteria that can cause an immune response, which leads to the other problems. The bacteria's life cycle also produces odors, which cause bad breath with a sulfur stench that nobody wants to smell.

Chlorhexidine gels applied to the gums daily have been shown to reduce plaque and gingivitis. However, this entails the same challenges as daily brushing. Few people do it, either.

It's not that dog owners don't care. Another study found 60 percent had bought dog dental care treats in the past month. In fact, 55 percent of treats dog owners buy are for dental care. But do they work?

Short answer: Yes!



CHOOSING CHEWS

Dental treats combine flavor, fibers, and abrasives in a chewy bar that prolongs chewing time and scrapes and loosens plaque. Numerous controlled studies have shown them to be effective in reducing plaque, tartar, and bad breath. It's important to choose a chew that your dog can't swallow whole.

Avoid hard bones, antlers, and hard plastic toys because they can cause tooth fractures. Rawhide is too easily swallowed, presenting a choking or blockage hazard.

Specially formulated dental chews, such as Greenies, are safer and superior. Dental treats containing zinc or vitamin C have been shown to be more effective

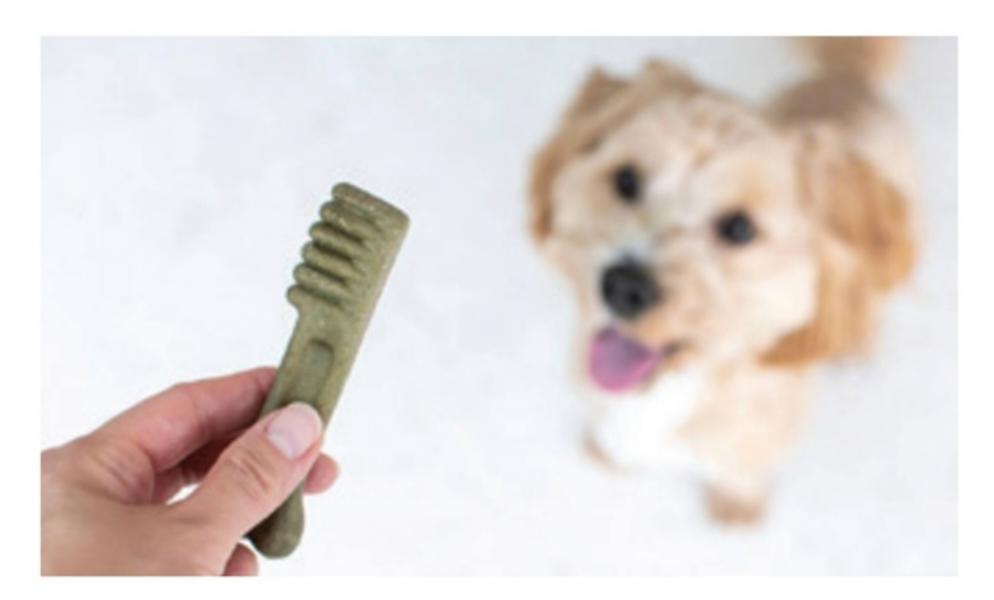
in combatting oral bacteria compared to treats without these ingredients.

DENTAL DIETS

Aside from treats, other foods and additives can help. Contrary to popular belief, wet food doesn't cause more plaque than dry food. However, specially formulated dental diets, with large, dry kibble containing abrasive ingredients, have been shown to decrease plaque.

Many anecdotal claims exist that raw food diets prevent plaque, but no peer-reviewed studies are available to support this.

Green tea compounds may hold some promise, as they prevent biofilm formation over the teeth, thus slowing



bacterial growth. In fact, adding small amounts of green tea extract to dog food was shown in one study to decrease bacteria commonly found in the plaque of dogs with gingivitis. Unfortunately, no commercially available dog foods currently contain green tea extract.

WATER WORKS

What about drinking-water additives? Yes, they work. Drinking-water additives contain ingredients such as vitamin C, zinc, sodium phosphate, and cetylpyridinium chloride (CPC).

The mechanism by which vitamin C works is unknown, but it does reduce periodontal disease, possibly by decreasing inflammation and strengthening connective tissues. Zinc salts inhibit bacterial growth, and also react with hydrogen sulfide in a way that reduces bad breath. Sodium-phosphate salts are calcium chelators that reduce tartar by slowing mineralization of plaque. CPC has a broad-spectrum antimicrobial activity and is more often used in sprays and gels.

Some commercially-formulated water additives contain xylitol. While this sugar alcohol is an effective antibacterial agent, it is toxic to dogs. A report of a pilot study published in the Canadian Veterinary Journal in 2022 showed no adverse effects from the doses in water

additives. But the scientists pointed out that "there are no studies reporting the health risks of chronic, low dose administration of xylitol in dogs."

(Just to emphasize: Do not feed your dog breath-freshening mints, gum, or candy formulated for humans—the xylitol levels in these items are highly toxic to your dog.)

THE SMILE SEAL

While none of these choices may be as good as brushing, it's obvious many are far better than nothing. But which ones? Look for the seal of approval from the Veterinary Oral Health Council (VOHC). The VOHC, which is overseen by the American Veterinary Dental College, approves only products that have been shown to be safe and effective in controlled trials. Approved products carry the VOHC Seal of Acceptance on their label. A list of approved products is on their website (vohc.org).

The take-home message: Your dog really can chew, chomp, and lap his way to cleaner teeth. It helps if you start with a professional cleaning and prevent, rather than fight existing, plaque and tartarbut every crunch counts! FD

Caroline Coile is the author of more than 30 books about dogs and a two-time AKC Canine Health Foundation award winner.

