



Expert information on medicine, behavior, and health in collaboration with a world leader in veterinary medicine

THIS JUST IN

## New Dog Age Formula

*It's not a simple calculation*

**W**e've always known we need a new formula for converting dog ages to human years. Most of us multiply the dog's age by 7, however, veterinarians have long objected to that simple formula, citing sexual maturity and the size of dog as two reasons a "one size fits all" calculation won't work. Plus, smaller dog breeds usually have a longer life expectancy than large breeds.

Now, researchers at the University of California, San Diego, who scanned DNA patterns on 104 Labrador Retrievers for comparison and used the rate of the methylation changes in dogs to match it to the human epigenetic clock (biological aging), propose a new formula for dogs over the age of 1:

$$16 \ln(\text{dog age}) + 31 = \text{human age}$$

That is the dog's age in *natural logarithm* (not how many years he's been alive), multiplied by 16, plus 31.

So, a 6-year-old dog would be equivalent to a human who is 59.7 years old, instead of the old method that would compare the dog to a 42-year-old human.

Natural logarithms are used to find "half-life, decay constant, or unknown time in exponential decay problems," according to many sources. For most of us, it is not easy to calculate a natural logarithm, although some calculators have a button for it. ■

doi:10.1126/science.aba2340



## Canine Numerosity

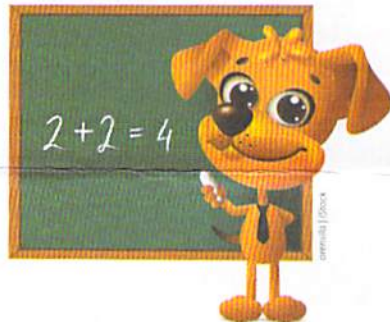
*Dogs process quantities similarly to humans*

**D**ogs spontaneously process basic numerical quantities using a distinct part of their brains that corresponds closely to number-responsive neural regions in humans, finds a study at Emory University. And the dogs don't need to be trained to do it.

The study used functional magnetic resonance imaging (fMRI) to scan dogs' brains as they viewed varying numbers of dots flashed on a screen. The results showed that the dogs' parietotemporal cortex responded to differences in the number of the dots. The researchers held the total area of the dots constant, demonstrating that it was the number of the dots, not the size, that generated the response. This supports the ability of dogs to rapidly estimate a quantity of objects in a scene, such as the number of predators approaching or the amount of food available for foraging.

This basic sensitivity to numerical information, known as numerosity, does not rely on symbolic thought or training. Much of the research in non-humans, however, has involved intensive training of the subjects. The dogs in this study did not receive training. After entering the fMRI, the dogs passively viewed dot arrays that varied in numerical value. Eight of the 11 dogs showed greater activation in the parietotemporal cortex when the ratio between alternating dot arrays was more dissimilar than when the numerical values were constant. ■

Aulet, L., et al. Canine sense of quantity: evidence for numerical ratio-dependent activation in parietotemporal cortex. *Biology Letters*, 2019; 15 (12): 20190666 DOI: 10.1098/rsbl.2019.0666.



5 THINGS

## 5 Things About Supplements

*Without FDA oversight, it's all buyer beware*

**U**nlike medications, supplements are not regulated by the FDA. While the FDA will stop supplement manufacturers from making medical claims, some companies may skirt the line.

- 1 Talk with your veterinarian before beginning a supplement. Ask about the safety and effectiveness of vitamins, nutraceuticals, herbs, or other additives.
- 2 When considering a purchase, read the label. All labels should have lot numbers, the name of the manufacturer, and a website or phone number.
- 3 Look for a complete list of active and inactive ingredients (including amounts of each) on the label.
- 4 Read the website and look for information about possible drug interactions and side effects.
- 5 Look for a seal from the National Animal Supplement Council. The NASC has standards for labeling and quality assurance. ■



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## Kids and Dogs—Reading Comes Naturally

*The presence of a dog can help a child's reading skills*

A recent study from University of British Columbia at Okanagan adds to the many research studies showing that dogs can help children with reading skills. Camille Rousseau, a doctoral student and one of the researchers, looked at 17 children (eight girls and nine boys) from grades 1 to 3, while they were reading with and without a dog. Christine Tardif-Williams, a professor at Brock University's department of child and youth studies, was one of the leading researchers.

About 70% of the children chose to keep reading beyond the initial assignment if a therapy dog was present versus 40% of the children reading without "canine assistance." In this study, the children were challenged with reading above their current level of competence. Says *The Vancouver Sun*: "The study concludes that this type of program might be more relevant among young readers, children with a learning disability in reading, or struggling readers because they often engage with challenging reading tasks to learn to read."

Some therapy dog programs have incorporated "Reading With Rover" certifications (based on the READ, or Reading Education Assistance Dogs, organization), as part of their overall therapy dog work. Dogs chosen for this work must be comfortable being around children. They must have training so they will sit or down quietly next to the child while they read. Most dogs enjoy being petted during their "story hours" as well.

The child reading must feel comfortable being around dogs. Dog handlers are also present but stay quietly in the background.

Other studies have shown that the children feel less stress reading to the dog than to another person. The dogs don't criticize or try to hurry up the child, of course. Instead, they wait while the child works through any problems. The dogs enjoy the extra attention themselves. ■



## Keep an Eye on Your Rising Dough

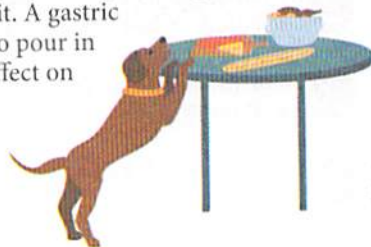
*Counter-surfing dogs can get in big trouble*

Baked goods are a family favorite, but that does not include Fido. Bread dough, pizza dough, bread starters, and sourdough starters all contain live yeast. According to the Pet Poison Helpline, "Rising yeast produces ethanol and gas. In the warm, moist environment of the stomach the process accelerates and fermentation increases. The stomach essentially acts as the 'oven' for uncooked dough. Rapid gas production causes stomach distension and vascular compromise similar to gastric dilatation/volvulus (GDV). In addition to ethanol and gas production and the potential for GDV in susceptible breeds, the large mass of rising bread dough may result in a foreign body obstruction."

Dogs may show vomiting, retching with no vomit, distension of the abdomen, and, possibly, bloat. These signs can mimic GDV or bloat, especially if you have a breed prone to bloat. An accurate history detailing a food raid on some rising bread on the counter can help. Your veterinarian may need to take abdominal radiographs to rule out actual GDV versus yeast and dough reactions.

Treatment might start with inducing vomiting as long as GDV is ruled out. Gastric lavage may be attempted but removing a large doughy mass may not be possible. The dough will have expanded since your dog consumed it. A gastric tube will relieve any gas buildup. It can also be used to pour in some cold water to slow down or stop the warming effect on the yeast in the dough.

If your dog also has neurological signs, he will need treatment similar to ethanol poisoning, with fluids, supportive care and monitoring for any metabolic disturbances. Prognosis is worse for a dog with neurological signs but good otherwise. ■



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DogWatch is an independent newsletter  
produced in collaboration with Cornell  
College of Veterinary Medicine



Cornell University  
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Veterinary Medicine

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Subscriptions: \$39 per year (U.S.) • \$49  
per year (Canada). For subscription and  
customer service information, visit  
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DogWatch\* (ISSN: 1098-2639) is  
published monthly for \$39 per  
year by Belvoir Media Group, LLC,  
535 Connecticut Ave., Norwalk,  
CT 06854-1713. Robert Englander,  
Chairman and CEO; Timothy H. Cole,  
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# Life Without Teeth

*It's not ideal, but dogs do OK with missing teeth*

**D**ogs may lose teeth due to trauma, periodontal disease, and even cancer, but they seem to do just fine once the ailment is under control. Genetics can play a part in tooth loss, too. Missing teeth should always be evaluated by your veterinarian, however, to limit the risk of infection.

"Most dogs with missing teeth have lost their teeth due to severe and painful disease, so they are generally more comfortable," says Nadine Fiani, BVSc, Dipl. AVDC, Assistant Clinical Professor, Dentistry and Oral Surgery at Cornell. Normally, dogs have 42 teeth as adults. Puppies have 28 teeth, which fall out by about 6 months of age. The full set of teeth in a normal dog include 12 incisors, 4 canines, 16 premolars, and 10 molars.

Genetics can also lead to missing teeth. The most common is premolar 2. The premolars are located behind the canine teeth, which we all recognize as the "fangs." Many dog owners never notice the missing premolar, which may be present as a deciduous (baby) tooth but is not replaced by a permanent tooth.

## Injuries Happen

Dogs can wear teeth down by chewing or crunching on hard or abrasive items. That might include chain-link fencing or wire crates or something as unsuspecting as the average tennis ball. "We encourage



*The teeth on this young dog are beautiful, white with healthy pink gums. Regular brushing can help keep them this way.*

owners to avoid tennis balls as they are very abrasive and will wear teeth very quickly," says Dr. Fiani. An occasional game of fetch is fine, but don't leave a tennis ball around for your dog to chew on as he pleases.

Dogs can crack or break teeth off from chewing on hard objects such as old, dried out bones. Broken teeth can be quite painful and may eventually get infected. You might notice your dog chewing differently, avoiding eating hard treats like biscuits, or even avoiding

drinking cool water (preferring tepid or room temperature instead). Swelling of the muzzle can be a sign of a problem. Frequently, the swelling is below the eye, which may make some owners think it's an eye problem.

Dr. Fiani considers some guidelines for chew toys. "We generally recommend avoiding very hard chews like antlers or cow hooves because dogs tend to fracture their teeth on them. The general rule we use is that 'if you can dig your nail into the chew and it leaves a mark, it should be OK for your dog.' Obviously, this is a broad guideline. Some dogs are such aggressive chewers, that they will wear or fracture their teeth on anything." Many veterinarians suggest avoiding antlers, ice cubes, and other very hard chew items.

Dogs can suffer broken teeth from being hit by a car, falling and landing face first, or biting at a crate or kennel trying to get out. Broken teeth generally need to be pulled, although a root canal or a crown may be feasible in some cases.

## Coping with Lost Teeth

The loss of a bottom canine tooth could cause your dog's tongue to hang out one side or the other, although many dogs without canines still manage to keep their tongues inside. But dogs without canine teeth can still eat, play fetch, and carry things like any other dog.

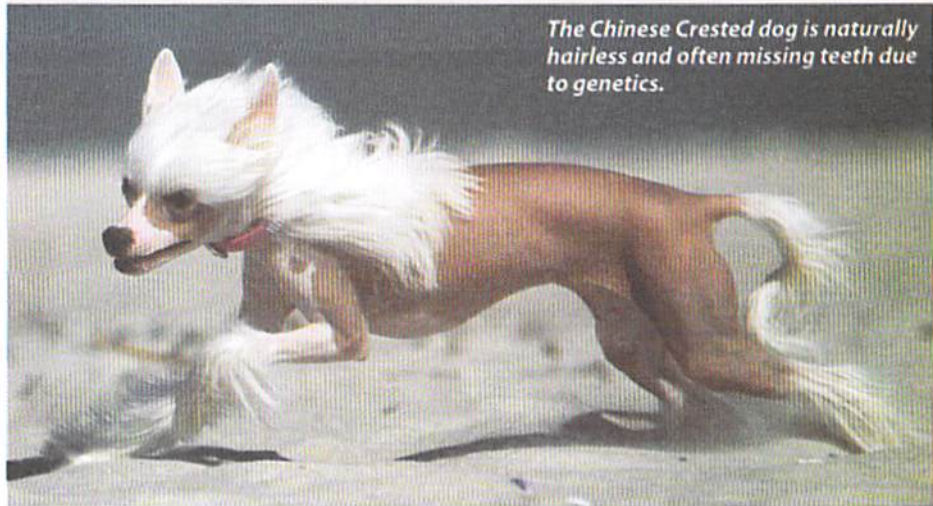
Many dogs gulp their kibble with

## You Should Know

- ▶ Tooth loss in dogs can be prevented with daily brushing, which is the best method of care.
- ▶ If brushing teeth is impossible, consider dental diets, sprays, and wipes to help control plaque.
- ▶ The Veterinary Oral Health Council lists approved products for canine dental care at [vohc.org](http://vohc.org). (See our article on p. 4.)
- ▶ Your dog's bad breath may be a warning sign to you about tooth problems.
- ▶ Missing/broken teeth should always be evaluated by your veterinarian.

## Hairless and Toothless

Some dog breeds have missing teeth due to a genetic mutation. Chinese Cresteds, Mexican Hairless, and Xoloitzcuintle among other hairless breeds have a mutation of the forkhead I3 gene (called FOXI3). While this gene most obviously affects hair growth and development, it also affects dentition. While even canine teeth can be missing, the most common affected teeth are incisors and premolars. Generally, these dogs do have molars present.



*The Chinese Crested dog is naturally hairless and often missing teeth due to genetics.*



minimal chewing, with or without teeth. When it comes to treats like a piece of cooked beef, most dogs simply swallow without any chewing at all.

“Regarding patients with some or no teeth, we honestly don’t see many issues. Some dogs will prefer a soft diet while others will go back to eating their kibbles without an issue. Dry tongue is not something I have come across. Some small breed dogs will end up with their tongue hanging out after they have had numerous extractions in their lower jaws, however, this is more of an esthetic issue,” says Dr. Fiani.

Missing teeth have no affect on drinking water. A study done at Virginia Tech looked at 19 dogs and how they drink. Basically, dogs get water by lapping with their tongues curled backward. They lap quickly to get the water in motion. Between the action and shape of the tongue, water goes into a column and into their mouths.

If your dog has had to have teeth pulled, follow the surgery aftercare instructions exactly. He may need antibiotics to prevent infection from developing in the open areas of the gums, especially if he was suffering from periodontitis. Some areas may be sutured closed with absorbable sutures, but others will be left open to heal from inside out with granulation tissue. Don’t let your dog paw at his muzzle.

Initially, you may need to soften your dog’s food or feed a slurry of canned food or heavily moistened kibble. Most dogs will work back to eating their regular diet once their mouths are healed. Keep food and water at room temperature in case your dog is sensitive to cold during the healing phase.

If your dog loses or chips a tooth, see your veterinarian right away to avoid complications, and talk to your veterinarian about a dental care plan. ■

## How Dental Diets Help

*It’s the kibble’s antibacterial properties and structure*

Every dog owner is guilty of looking for an “easy way” to handle dental care for their dog. We know it can be a hassle to keep at daily brushing (although even weekly will help!), and dogs are not big fans either. But paying for periodic veterinary dental cleanings under anesthesia can be expensive, and it’s no fun for the dog either.

Regardless, however, you need a reliable way to fight plaque and tartar to keep teeth and gums healthy. Edible dental products, like chews and foods, can help in the fight.

### Why They’re Different

Dental diets depend on physical structure and texture of the kibble as well as ingredients that interfere with the buildup of plaque and/or the development of tartar. Ideally, the kibble will provide a gentle abrasive activity to help keep plaque from attaching to your dog’s teeth.

Dental diets tend to rely on one or two areas of action, says Nadine Fiani BVSc DACVD, Assistant Clinical Professor, Section of Dentistry and Oral Surgery at Cornell. “First, is the shape and texture of the food—the kibbles are designed to be abrasive to ‘brush’ the teeth, which prevents plaque attachment. Second, most of these foods have a polyphosphate coating—this is a chelating agent that captures the calcium in saliva and prevents it from precipitating onto the plaque on the surface of the teeth. It essentially keeps plaque soft and easy to brush off.”

Kibble structure and shape can help with keeping



The bumps and ridges on these VOHC-approved treats help remove debris from your dog’s teeth.

teeth clean. “One kibble, Prescription Diet t/d (Hill’s Pet Nutrition), is designed with a transverse, fibrous striated matrix structure,” says *DVM Magazine*. “When chewed, the product fractures along the transverse striations and the animal’s tooth is retained in the kibble, increasing the abrasive contact with the fractured layers. The teeth are abraded and mechanically cleaned by the surfaces of the fractured layers as the product is chewed.” Dental wipes and toothbrushing also act mechanically to remove plaque and prevent it from gaining a foothold on your dog’s teeth.

Ingredients in the diets can help to prevent plaque and tartar. While the polyphosphates are the primary ingredient, additional ingredients might include zinc, which can help to slow down tartar build-up and has antibacterial properties.

### VOHC-Approved

The Veterinary Oral Health Council (VOHC) lists approved dental products—gels, sprays, treats, foods, water and food additives, toothbrushes, toothpastes, and

## Common Ingredients in Dental Products

You may find green tea polyphenols in some dental preparations, as it can reduce bacterial growth in the mouth and help with oral health and bad breath.

Prescription chlorhexidine mouthwash is widely prescribed for people and uses ionic charges to act on bacteria in the mouth, and cutting down on mouth bacteria can delay plaque and tartar. Since dogs can’t “hold and swish” for 30 seconds, it may be added to wipes.

Calcium peroxide is found in the VOHC-approved toothpaste Petsmile, as it prevents plaque attachment to teeth.



Red, inflamed gums indicate gingivitis, which can lead to tooth loss.

The yellow-brown mark on this dog’s teeth is a buildup of plaque and tartar.



wipes—on their website at [vohc.org](http://vohc.org). A large number of treats are included in the list, but only seven foods from three different manufacturers.

While the VOHC does not test dental products itself, its council evaluates products that meet standards set for plaque and tartar reduction. Data must be provided for both separately if a product wants full approval.

The council evaluates submitted product trials and testing data using the protocols established for proof of efficacy. For plaque effectiveness, the bacteria layer that forms on the surface of teeth must be reduced. For tartar reduction approval, the calcium salts that form the hard debris on teeth must be prevented or decreased.

An improvement of 15% is the minimum acceptable change for approval status. One part of the qualification is that the products must help to reduce the severity of periodontal disease in pets if used regularly and as directed. Products that meet the minimum standards are then given the VOHC Seal of Acceptance.

The seal of acceptance also requires an annual check to make sure there are no problems with safety or product recalls. It is important to realize that no matter how good these products are, they won't be effective unless you use them regularly and correctly.

### Bottom Line

Even with the regular feeding of a dental diet, some dogs will still build up plaque and/or tartar. While dental chews and water additives can help, daily tooth brushing, with periodic dental cleanings at your veterinary clinic as needed, remains the “gold standard” for ideal dental care. (See also “Dental Sprays May Help,” July 2019.) ■

## Plaque and Tartar

*When they build up, teeth are lost*

Plaque itself is the debris clinging to teeth that is composed of bacteria from the mouth, saliva and its proteins, plus bits of food. As it clings, it may harden into tartar and start to irritate the gums, creating pockets where bacteria and food can build up. Eventually, the gums may become infected and tooth structures may be involved. Dental problems tend to be quite painful, and dogs may lose teeth.



When shopping for dental products, look for the VOHC seal (above). The treats in the large photo each have the seal in the upper right corner of the package.

## VOHC-Approved Foods, Chews, and Treats

Dog Foods	Manufacturer	Plaque	Tartar
Prescription Diet Canine t/d Original Bites	Hill's	✓	✓
Prescription Diet Canine t/d Small Bites	Hill's	✓	✓
Science Diet Oral Care for Dogs	Hill's	✓	✓
HealthyAdvantage Oral Care for Dogs	Hill's	✓	✓
Eukanuba Adult Maintenance Diet for Dogs	IAMS		✓
Purina Pro Plan Veterinary Diets DH Canine Formula dry dog food	Nestle Purina		✓
Purina Pro Plan Veterinary Diets DH Small Bites Canine Formula dry dog food	Nestle Purina		✓
Rawhides			
Purina Busy HeartyHide Chew Treats	Nestle Purina		✓
Purina Pro Plan Veterinary Diets Dental Chewz Dog Treats	Nestle Purina		✓
Edible Treats			
Tartar Shield Soft Rawhide Chews for Dogs			✓
Canine Greenies Dental Treats	Greenies-Mars PetCare	✓	✓
Checkups Chews for Dogs	Sugar Creek, Diamond Foods	✓	✓
Member's Mark Dental Treats	Sam's West	✓	✓
Virbac CET VeggieDent Chews for Dogs, all sizes	Virbac Animal Health		✓
Improved Milk-Bone Brushing Chews for Dogs	Big Heart Pet Brands		✓
VetIQ Minties Medium Dog Dental Treat	TruRx		✓
Merial OraVet Dental Hygiene Chews for Dogs	Merial, Ltd.		✓
ProDen Dental Bites	Sweden Care	✓	✓
Purina DentaLife Daily Oral Care Dog Treats	Nestle Purina PetCare		✓
Hill's Prescription Diet Canine Dental Care Chews	Hill's Pet Nutrition, Inc.	✓	✓
Hill's Science Diet Canine Oral Care Chews	Hill's Pet Nutrition, Inc.	✓	✓
Purina DentaLife Advanced Clean Treats	Nestle Purina PetCare		✓
Whimzees Brushzees and Toothbrush Treats for Dogs, five sizes	WellPet, LLC		✓



# Foster Care: Are You a Candidate?

## How to be a valuable volunteer for homeless dogs

Depending on where you live and what has been going on in your community, your local shelters and rescue groups may have their hands full with dogs in need of homes, especially the ones that need some extra care and attention for medical or behavioral reasons before they can be placed in a permanent home. Many groups utilize foster homes to give these special-needs pooches the focused attention they need.

### What Is Fostering?

Fostering is providing a temporary home for a dog or puppy that needs some extra time and care to be ready to go to a permanent home. Healthy adult dogs are sometimes put in foster homes to allow the shelter or rescue group to evaluate how they behave in the setting of a normal home, but many foster dogs need medical care to recover from an illness or injury, training and behavioral management to correct bad habits, or around-the-clock care.

In most cases, the shelter will provide food, supplies, and medical expenses. All you have to do is open your home and give your time. Foster lengths range from a few days to months depending on the needs of the dog and the group that you are working with.

The shelter or rescue should provide you with training so that you are prepared to handle the special needs of the particular dog or puppy that you will be fostering. Some cases will be more challenging or complex than others.



Many foster dogs have special needs and require a special person to help.

### Are You a Good fit?

Maddie's Shelter Medicine Program at Cornell works closely with the Tompkins County SPCA and their foster coordinators Karen Nieves and Ashley Workman. To be a good candidate to foster, Nieves and Workman recommend:

- ▶ Having a separate space or room for the foster animal that is away from other pets and easy to clean.
- ▶ Somewhat of a flexible schedule in order to make appointments as needed, especially in the case of an emergency.
- ▶ Transportation of their own for the same reasons stated above.
- ▶ Being able to be reached through normal means of contact (phone, email, etc.) and return calls or emails promptly.
- ▶ Friendly dog/cat in the home, or no

pets at all of their own (ideal if the foster dog does not like other dogs or small animals).

- ▶ Keeping track of the important information, like daily weights, vaccine schedule, and staying on top of making appointments for the foster animal.
- ▶ Writing profiles for pets returning to the shelter with cute photos.

Your own pets should be up to date on vaccinations and preventive medications to prevent the spread of disease and parasites between animals and not aggressive.

Also keep in mind that while you will be providing day-to-day care for the foster dog, he is not your dog. You will need to stay in touch with the shelter or rescue group, giving regular updates and following their instructions. Medical decisions will be made by the shelter or rescue in conjunction with a veterinarian.

### Medical Cases

Sick dogs and puppies may require supportive care and administration of medications. Dogs in critical condition with extensive medical needs will be boarded at a veterinary facility, but there is still a lot that can be done at home for non-critical cases.

Supportive care includes making sure the dog eats and drinks sufficiently (possibly syringe feeding or using a feeding tube if necessary), cleaning crusty eyes and noses, ear cleaning, providing warm water bottles wrapped in blankets as a heat source, warming up food, bathing, and possibly giving subcutaneous fluids (inserting a needle under the skin to administer fluids to correct dehydration and electrolyte imbalances). You will also need to monitor the dog's temperature and weight. Some dogs may need a special prescription diet.

Medications come in many forms and will vary depending on the needs of the dog. Some dogs will eat pills in food, while others have to be pill by hand using either your hand or a pill gun or pill popper. Besides tablets and capsules, medications can also come as liquids, powders, medicated baths, ointments, drops (for eyes or ears), or transdermal ointments that can be absorbed through the skin. Liquid medications can often be mixed with food or squirted directly into the dog's mouth, and powders can usually be mixed with food. Most eye medications are either drops or

## Foster Puppy Care Is No Easy Task

While not as common as litters of kittens, litters of puppies sometimes require foster care. Raising young puppies is hard work with the potential for heartbreak, but can be very rewarding. Young puppies under four weeks old require round-the-clock care with regular feeding and stimulation to urinate and defecate. They also must be kept warm.

As the puppies age, they can be switched over to regular food and you can start exposing them to different sounds and objects that they will experience over the course of their lives.



Raising orphaned young puppies requires skill, time, and dedication.



ointments that are applied directly to the eyes. Ear medications are usually a liquid solution. Some dogs, such as those with diabetes, may require regular injections. If you are uncomfortable giving a medication, let the shelter or rescue group know ahead of time so that they can either train you how to do it properly or place a dog with you that does not have those requirements.

Some foster dogs may have injuries from being hit by a car or getting in a fight with another dog. Minor wounds may require cleaning and bandage changes. If the dog has had surgery, he will likely be wearing a cone to prevent him from chewing at his incision. It is your job to make sure he keeps the cone on and follows any exercise restrictions to facilitate healing. Some dogs don't like to eat, drink, or eliminate while wearing a cone, so you may need to remove the cone and watch him closely while he does what he needs to do. More involved wounds or abscesses may be closed with a temporary drain in place. Drains need to be monitored and gently cleaned daily. Dogs with orthopedic or neurological injuries may need to do physical rehabilitation exercises at home and go in for rehab sessions at a veterinary facility.

You may also need to bring the dog in for follow-up veterinary exams. Some conditions, such as a broken toenail, require minimal follow-up care, while others require more, such as repeated x-rays to monitor bone healing or recheck bloodwork to make sure a dog is improving after a bout of pancreatitis.

Keep the shelter staff apprised of any changes in the dog's health. Nieves and Workman recommend that you be able to "recognize signs of serious issues as they arise (for example, weight loss, ongoing diarrhea, signs of upper respiratory issues, etc.)." If something seems amiss, call the shelter or rescue immediately for guidance on what to do next.

### Behavioral Cases

Behavioral issues are one of the most common reasons for dogs to be surrendered to a shelter. Many foster dogs may lack any household manners. The shelter or rescue group should provide you with information on basic training, and may approve you to take the dog to a training class or for private lessons.

Skills that every dog should learn include crate training, walking on a leash, greeting people politely, sit, waiting at doors, and coming when called.

Your foster dog or puppy may also need socialization with other dogs, and possibly with more people, too. At first he will just need time to settle into your home and learn your routine. After that, depending on his health, he can start slowly meeting new people and eventually calm, friendly dogs in small doses and controlled settings.

Report back to the shelter or rescue with your foster dog's experiences and progress. If a dog placed with you seems to be truly aggressive or extremely fearful, he may not be able to be placed into a home. Any bites to people or animals must be reported back to the rescue/shelter.

### Health Concerns

It is easy to get caught up in the excitement of helping a homeless dog or puppy, but there are several important things to keep in mind to protect the health of the foster dog and your own pets. Nieves and Workman caution against bringing young puppies or unvaccinated dogs (meaning the dog has not completed the entire distemper-parvo vaccination series) to dog parks and other public places. Foster dogs are often

stressed and may be ill, making them more susceptible to infectious diseases.

Nieves and Workman's tips for success when balancing a foster dog's care and your own pets' health are:

- ▶ Keep foster pet and [your] own pets separated. If allowing to interact, allow only supervised visits for pets believed to be safe.
- ▶ Have all pets in the home fully vaccinated, treated for fleas, and routinely dewormed.
- ▶ Wash hands and change clothes between handling [the] foster pet and owned pets if dealing with a contagious disease.

### Reality

It's hard work, but foster care can be a rewarding experience. Some people nearly always have a foster dog at their home, working to ensure that dogs can find a permanent home.

It's important to remember, too, that it is quite possible that you might fall in love with your foster dog or puppy, and choose to adopt him permanently. While this does make you a "foster failure," there is absolutely nothing wrong with that happening!■

## How to Get Started

If you are interested in becoming a foster home for a dog or puppy, reach out to a local shelter or rescue group. Consider starting by volunteering at the shelter. Nieves and Workman say that you should expect the shelter or rescue to provide "a written manual with expectations regarding the program and advice on how to best care for the type of animal they are fostering, some form of training or orientation, after-hours contact or a protocol for seeking care in case of emergency, and full disclosure on known behavior or medical issues."

On your end, you will need to fill out an application form including information about yourself, your schedule, and any pets in your household past and present. The application will also ask about your experience with dogs and with special-needs pets. Be honest! This information allows the rescue group to match you up with a foster dog that is within your skill level to set you both up for success.

Expect a staff member to do a home visit. This allows them to observe your home and personal pets to make sure that it is an appropriate environment for a foster dog or puppy.



If you're interested in fostering, take some time to volunteer at the shelter.



# Owners Want Barking to Cease

*Solutions to squash protective nighttime alerts*

**Q** Charlie, our 1-year-old Shih Tzu/Bichon Frise, has evolved into a therapeutic dog for my wife since we lost Leo, our 10-year-old Shih Tzu, to a horrific mauling by a much larger dog. Charlie is like a spur on Barbara's heel! When Barbara is in the house, he is at her feet.

However, during the last couple of months, Charlie has started barking incessantly, in the middle of the night, whenever "something" moves on our patio. Where our house is located, there is nightly movement on our patio—cat, racoon, lizard, etc.—and Charlie awakens us with loud, high-pitched, strong barking. We researched and learned it probably is the Bichon in him (barking, protection, territorial). When he starts, he does not respond to any command. It could be quite critical since we do not get any sleep a few nights a week.

Any suggestions? Do you think the basket muzzle referred to in your August issue might work? We certainly would appreciate your comments.

**A** Your Shih Chon (a Shih Tzu-Bichon Frise cross dog) has hybrid vigor—cuter than either parent breed! I am sorry he is keeping you awake, and I am also sympathetic because I have a Westie who likes to bark at noises in the night. Of



*The cure to Charlie's incessant barking will involve some management changes.*

course, one reason humans domesticated dogs was to warn them of impending danger, such as a bear coming into the camp or a stranger. Many people still want dogs for protection. Not so much to attack intruders, but to warn of their approach.

A basket muzzle would not prevent him from barking because he doesn't have to open his mouth very wide to bark. A sleeve muzzle would be more effective, but preventing the dog from performing a behavior is not the correct approach. The correct approach is to remove the stimulus to barking.

You can try to reduce the traffic in your yard by leaving lights on to dissuade some animals from visiting and, of course, don't feed the raccoons or lizards. Can you fence your property? I know many housing estates forbid fences despite the adage that good fences make

good neighbors. I certainly would want to keep raccoons away because they might attack Charlie, especially if he is between them and a midnight snack.

Those are my ideas for outside the house. Inside, you can arrange for Charlie to sleep in a room as far as possible from the yard. When imprisoned in a room, my Westie scratches on the door, but we solved that problem by tacking sandpaper to the door. Now if he scratches on the door, he also files his nails, thus saving him from the dreaded nail clippers.

Make sure that Charlie has had plenty of exercise, so that he is ready to sleep. We found that dogs in shelters slept from 5 p.m. to 7 a.m. I think many of our dogs are sleep-deprived, which leads them to be irritable, especially in the evening.

Feed him his dinner late because a satiated dog is more likely to sleep. Mask outside noises. Pull draperies and close windows. You can even use a white noise machine to mask those critter noises that stimulate his barking.

Many gadgets punish barking, but punishment is my last choice because to be effective punishment must occur immediately as the dog is misbehaving and must be strong enough to be effective, but not so strong as to frighten him. There are ultrasonic bark collars, shock collars, and citronella collars.

Ultrasonic collars usually inhibit the dog's barking at first, but then the dog habituates to the sound and returns to barking. Shock collars that are triggered by the dog should work (never use the ones triggered by a remote), but I never recommend them because we found that citronella spray collars work better. Dogs can habituate to those, too, but usually small dogs like Charlie do not, so this may be a good choice.

Good luck with Charlie who is, after all just trying to protect you from the dangers that lurk outside your door. ■

## Do You Have a Behavior Concern?

Send your behavior questions to Cornell's renowned behavior expert Katherine Houpt, VMD, Ph.D., shown here with Yuki, her West Highland White Terrier. Email to [dogwatcheditor@cornell.edu](mailto:dogwatcheditor@cornell.edu) or send by regular mail to DogWatch, 535 Connecticut Ave., Norwalk, CT 06854-1713.



## Coming Up ...

- ▶ What Your Vet Considers in Vaccine Choices
- ▶ Heartworm Prevention and Care
- ▶ Dealing with Doggie Body Odor
- ▶ Why Your Dog Needs Crate Training

## © HAPPENING NOW...

**Dogs and Cancer Research**—Smart Brief reported that a Bernese Mountain dog received an experimental vaccine for osteosarcoma and has remained cancer-free two years. This positive experience will help researchers understand more about the potential for this vaccine.

**Lucky Dog**—A veterinary team at the University of Florida

College of Veterinary Medicine's Small Animal Hospital spent part of Christmas resuscitating a 14-month-old French bulldog whose heart stopped after he got into a fight with another animal.

Veterinarians had to amputate one of the dog's legs, but emergency veterinarian Bobbi Conner says the dog is likely to adjust well, reports *Smart Brief* and the *Gainesville (Fla.) Sun*.

