

VOLUME 9  
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# The Whole



# Dog Journal™

A monthly guide to natural dog care and training

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# End of Life Issues

*What's best? What is most humane?*

BY NANCY KERNS

Last September, I experienced the death of a dear uncle. George had advanced pancreatic cancer that had spread to his liver and lymph nodes, and his doctors advised against treatment, which they said, would only make him suffer more. George's partner, and one of my sisters and I arranged to bring George home for hospice care.

George's healthcare directive clearly stipulated that, if he were ever unable to make medical decisions for himself and had no hope of recovery, he wanted to die without any life-prolonging measures – not even fluids or intravenous feeding. Medication to keep him out of pain was the only thing he wished.

We brought George home on a Friday, and hired a live-in nursing assistant to help us care for him. Since it was a holiday weekend, we were put on a waiting list for an "intake" from a local hospice; anxious, we had to wait several days for the hospice workers to come to the house to help us do everything we could for George. We were able to talk to the on-call hospice nurse over the weekend, and she provided lots of support and practical advice over the phone, but wouldn't be able to come to George's home until Tuesday.

As we made George as comfortable as we could, I couldn't help thinking about the deaths I had experienced firsthand. All were with animals; I was never present with a person who was near death. And all the deaths I attended – of a number of dogs and cats, a horse, and a dairy cow whom I had hand-milked for several years – were hastened by euthanasia medications. Never had I been present for a natural death; in each instance, I had opted to preemptively end the suffering of my animals.

As I watched George advance through the stages of dying, I found myself wondering: Is this kind? Is this humane? And I concluded that, yes, it was the kindest thing we could do for him. If he had been a dog, I almost surely would have arranged for a vet to come to my home to "put him to sleep," to "end his suffering." But thanks to pain medication, George did not suffer. He was home, with his partner at his side and his 20-year-old cat on her bed by his bedside. Those of us who loved George surely suffered, watching him fade from this world, but I know *he* did not.

On Saturday, George stopped taking the small bites of food he had accepted earlier in the week, and took only enough water to wet his mouth. By Sunday morning, he stopped speaking, though he was still responsive to us. On Monday he ceased to respond, and he passed away quietly that evening.

I used to think it is cruel that euthanasia is not available to people who are dying, the way it is for our animals companions. I used to think that a hastened end to my dying animals' lives was the most "humane" gift I could give them. I'm unsure about this now. What if the dying take an important spiritual journey as they pass from this life? And should our discomfort with death provoke us to speed it along?



"Hospice How-To" (page 19) will help anyone who is considering providing hospice care for an aged animal companion, or one with a terminal illness. *NK*

**MISSION STATEMENT:** WDJ's mission is to provide dog guardians with in-depth information on effective holistic healthcare methods and successful nonviolent training. The methods we discuss will endeavor to do no harm to dogs; we do not advocate perpetrating even minor transgressions in the name of "greater good." We intend our articles to enable readers to immediately apply training and healthcare techniques to their own dogs with visible and enjoyable success. All topics should contribute to improving the dog's health and vitality, and deepening the canine/human bond. Above all, we wish to contribute information that will enable consumers to make kind, healthy, and informed decisions about caring for their own dogs.

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# Completely Convenient

*Commercial frozen foods make feeding a “natural” raw foods diet easy.*

BY NANCY KERNS

**D**espite what many makers of conventional canned or dry pet foods would have you believe, raw diets for dogs are not a modern fad, but a return to the dog’s not-so-distant past. While many who advocate “biologically appropriate raw foods” (so-called BARF diets) for dogs point to the canine’s evolutionary diet as justification for this feeding paradigm, the fact is that dogs were thriving on bones and raw meats (and other table scraps) just a hundred years ago – *not* so long as to imagine that they have since “evolved” out of easily digesting these foods! Kibble and canned, if anything, constitute the modern feeding “fad.”

Most of our grandparents knew how to do a lot of things that most of us don’t know how to do anymore, like canning fresh foods or cleaning a fish. In the name of convenience, we’ve allowed industry to remove



**Do you want to feed your dog a raw diet, but are afraid of leaving something important out? Today there are many “complete and balanced” raw diets on the market, and many other products that can support a home-prepared diet of your design.**

The Whole  Dog Journal™

## WHAT YOU CAN DO . . .

- **Look for products that meet your needs: Organic? Complete and balanced or supplementary? Grains or grain-free?**
- **Look for manufacturers with local retail outlets, or whose shipping schedule, range, and prices work well for you.**
- **Discuss your dog’s health status with the food company rep. He or she should be able to help guide your purchases based on your dog’s needs.**
- **Use safe meat-handling and sanitation practices at all times.**

us from the process, and we’ve thus lost a lot of common-sense knowledge about the end product. Our grandparents’ generation knew how to feed the family dog – as well as the Best of Show winner at Westminster – on a home-prepared diet.

Fortunately, for today’s over-informed but under-smart dog owners (myself included!), there are companies that offer our dogs a source of food that has the convenience of a prepared diet, the nutritional benefits of a biologically suitable food, *and* confirmation of space-age laboratory testing that it contains all the nutrients a dog needs (as far as we know so far!).

## Why raw? Why meat?

These diets all contain fresh meat – and here, we mean “meat” in its broadest sense; we’re talking about muscle meat, organ meat, bones, fat, connective tissues – all that prey animals have to offer carnivorous predators. Animal proteins offer the most complete array of amino acids required by

canines, and the other tissues almost perfectly complete the dog’s nutritional requirements.

Lab tests confirm it: with a little added vegetable matter and some smart if minor supplementation, the best of these meat-based diets meet the nutrient profiles for “complete and balanced” canine diets established by the Association of American Feed Control Officials (AAFCO), *just* like most dry and canned foods do! Only, because they aren’t cooked, leaving the heat-sensitive nutrients in their fresh ingredients intact, many of these products do not require the addition of a vitamin/mineral supplement to accomplish this feat.

Don’t overlook the importance of raw bone in these formulas; the ones that don’t contain it *must* contain an adequate substitute source of calcium and other minerals. Many people who feed BARF diets use whole, raw meaty bones such as chicken wings and turkey necks as the major source of calcium in their dogs’ food. Most of these



commercial raw diets include *ground* raw bones, to take advantage of their nutritional value without any of the hazards occasionally posed by bone consumption.

## Practice safe steaks

One of the most frequently cited objections that veterinarians have to raw diets is the potential for bacterial contaminants present in the meat to infect and kill your dog, all his canine friends, and indeed, your hapless children and your elderly mother, too.

Well, it's true: meat infected with *E. coli*, *Salmonella*, *Campylobacter*, and *Listeria* sickens thousands of people every year. Does this mean that no one should eat meat? Perhaps! Or maybe it means that you should act as if *all* meat in your home is infected, and handle it accordingly: Employ scrupulous meat-handling and sanitation practices, and leave the consumption of raw meat to

your healthy dog, who is naturally and exquisitely well-designed to deal with ingested bacteria.

Handling raw meat in a safe manner is not rocket science. All of the normal precautions of handling the meat eaten by you and your family apply, including:

- People with immune system disorders should avoid handling raw meat. For that matter, raw foods are not suited for immune-compromised *dogs*, either.

- Keep food frozen until you are ready to feed it. Then, thaw small amounts (only what your dog will eat within a day or two) in the refrigerator. *Never, ever* allow food to sit for long at room temperature – duh!

If you need to thaw food in a hurry, seal it in a Ziploc bag and place it in warm water for not more than a few minutes.

- Wash your hands with hot water and soap immediately after preparing the dog's food.

- Promptly wash everything that comes in contact with the food with hot, soapy water: bowls, knives, grinders, countertops and cutting boards. Periodically, use a disinfectant, such as a mild bleach solution. (My chef sister scrubs and soaks her cutting boards with sea salt and lemon juice.)

- Discard any food your dog leaves in his bowl after eating. Don't allow him to "leave it for later." Don't even save it for later in the refrigerator!

- Don't forget to wash the dog's water bowl in hot, soapy water daily, as well. Many dogs drink right after eating, and could conceivably contaminate their water with bacteria in their mouths after eating.

## Undeterred by Recent JAVMA Article

An article in the February 15, 2006, issue of *Journal of the American Veterinary Medical Association (JAVMA)* entitled, "Evaluation of bacterial and protozoal contamination of commercially available raw meat diets for dogs," scared a few dog owners and may have put a smile on the faces of anyone opposed to feeding raw food diets. But we're not worried about its conclusion – that bacterial contamination is common in commercially available raw food diets – because of a few significant flaws in the study's methodology.

First, in 2002, the authors purchased their sample foods – 21 raw meat products sold as diets for dogs, produced by seven different companies. But none of the foods are identified in the study. Were they prepared and sold by companies that use only USDA-inspected and -passed, "human-grade" meats? Or companies that use meats that don't pass inspection – the so-called "4-D" (for dead, dying, down, disabled animals) meats or other low-cost meats and meat by-products? We don't know!

The next thing is more significant. It's so ludicrous, I have to quote it: "None of the raw meat products were accompanied by instructions for thawing or preparation. Frozen products were thawed at room temperature (22° C) for 8 to 10 hours before sampling." Are we to believe that six researchers, with a total of two master's degrees, five veterinary degrees, and three PhDs, needed instructions to learn that *nobody* thaws meat at room temperature all day? (And while we can't comment on the products of 2002, today, all the diets we've seen include instructions for thawing and safe handling.)

The fact is, plenty of more credible studies have already established that bacterial contamination of the meat that we buy *in the supermarket* is common. That's why we humans cook it before we eat it, and why we are trained and instructed to use *proper* meat-handling and sanitation practices. But dogs are tougher than we are. They have a greater number of specialized defenses against the "bad" bacteria they consume – bacteria that abounds in their favorite foods, such as garbage, long-dead animals, buried bones, and poop.

The real question – darkly hinted at but not answered in the *JAVMA* article – is whether, in reality, dogs (or their owners) are getting sick from bacterial contamination of raw diets, and if so, are these illnesses any more prevalent or serious than the illnesses caused by spoiled kibble or canned food? After all, even the authors of this (in our opinion) flawed study had to admit that a significant number of the dry and canned foods they tested in comparison were contaminated with bacteria, too.

## Chill out

Ideally, you'll be able to buy one of these frozen diets from a retailer near you, enabling you to whisk the food home to your freezer. Somewhat less ideal is receiving the product via overnight or two-day delivery, packed in dry ice and/or a cooler.

But anyone who has ever had a birthday present or Amazon.com order arrive late knows that stuff happens. Planes are grounded, storms close highways, etc.

Before you order any product, we suggest that you question the maker closely as to the company policy on shipping mishaps. Who will pay for meat that arrives at room temperature? Because you don't want *your* dog to eat it!

Most of the companies ship on a certain day of the week – only on Mondays or Tuesdays, for example – and give you ample notice as to the expected time and date of delivery. Then it's up to you to be waiting at the door for the delivery truck, so that costly package doesn't linger on a hot porch.

## A few good foods

On the following pages are a number of companies that make and sell raw canine diets (many make cat food, too). The type and quality of their products vary – that is, they vary within the upper- to top-echelon of raw pet food makers!

Some of the products contain grain; most do not. Some of them are "complete and balanced" – a real boon to people who have little experience with home-prepared foods or little support from their veterinarians;

other products are meant to provide the foundation of a diet that *you* design and balance – a job best left to those with superior information resources and professional support.

(Speaking of which: We very much appreciate the companies who provide an overabundance of information about raw feeding in general and their products in particular. For example, *every* food maker – makers of dry and canned foods included – should be able to provide dog owners with a complete nutritional analysis of their products. And makers of frozen foods *must* include clear directions for thawing and safe handling.)

None of the companies on this list make food we wouldn't recommend. But it's a fact that they, just like dry or canned food makers, use meats of varying quality. Most claim to use USDA-inspected and -passed (or "human-quality") meats. A few claim to use only totally organic ingredients, or sources of meat that were grass-fed, or free of antibiotics and/or growth-hormones. We suggest looking for the best-quality ingredients you can afford.

As always, each dog warrants an individualized diet. Experienced raw feeders will be able to look at the descriptions of

## Group Aims to Provide Industry Leadership

Given the increasingly organized assaults on raw pet food by conventional pet food interests, the manufacturers of raw pet food are finally banding together to defend their growing industry. In fall of 2005, the North American Raw Petfood Association (NARPA) was founded by Melinda Miller, co-owner of Bravo Raw Diet; Sandy Goodman, CEO of MI Industries (maker of Nature's Variety); Matt Koss, co-owner of Primal Pet Foods; and Steve Brown, author of *See Spot Live Longer*, and founder of Steve's Real Food (Brown is no longer affiliated with Steve's Real Food).





The group has sought input and participation from raw food manufacturers and suppliers, as well as people who produce ancillary products, such as supplements and mixtures that are added to raw meat to "complete and balance" canine diets. As enrollment in the association grows, NARPA hopes to build a Web site stocked with industry news, informative articles, and a member directory. The ultimate goal is to fund research or surveys that will confirm what anecdotal evidence from thousands of raw feeders already suggests: that complete and balanced raw diets can produce and maintain super-healthy, well-adjusted, fertile dogs.

For more information, you can contact NARPA through Executive Director Steve Brown's e-mail address: creekobear@aol.com.

the products below and know instantly which foods might be of use to them in building their dogs' diets. Those who are new to this method of feeding should, ideally, discuss the idea and plan an appropriate diet with their holistic veterinarian or a professional veterinary nutritional consultant who has experience with raw diets. Ask the

food makers for their suggestions, too; they have a wealth of experience and a vested interest in helping to demonstrate the benefits, not the pitfalls, of this method of feeding healthy dogs.

Finally, please note that we have not ranked the products in any way; they are presented in alphabetical order.

VENDOR INFO	COMMENTS
<p><b>A Place For Paws</b> Columbiana, OH (800) 354-4216 aplaceforpaws.com</p> 	<p>Offers meat and vegetable mixes; most include ground bone and some supplements, such as garlic, flaxseed, and kelp. All meat and vegetable mixes use only one protein: Chicken, beef, lamb, turkey, pork, Cornish game hen, or rabbit. Organ blends (chicken, turkey, or beef) blends also available. Basic "guaranteed analysis" (GA, which includes min. protein, min. fat, max. moisture, max. fiber) available for all products. Diets are not represented as "complete and balanced." Fresh mixes are prepared weekly. Orders are shipped to only some states (not including the Western US). Available in 1- or 2-pound containers.</p>
<p><b>Amore Pet Foods</b> Richmond, British Columbia (604) 273-8577 amorepetfoods.com</p> 	<p>Most of Amore's diets are single protein mixes containing beef, buffalo, chicken, quail, or ostrich (including muscle meat, ground bone, liver, and heart), a mixture of vegetables, and a few supplements. Meats used are all free-range; chickens are raised without antibiotics or hormones. Company discloses its sources of all meats. Nutritional analysis includes protein, fat, calories, phosphorus, calcium, iron, magnesium, zinc, potassium, and sodium. Products are sold only in Canada.</p>
<p><b>Animal Food Services</b> Green Bay, WI (800) 743-0322 animalfood.com</p> 	<p>AFS got its start in providing meat-based diets to zoos and wildlife refuges, and has manufactured companion animal diets since 1991. Offers "complete and balanced" beef-based diets that include muscle meats, organ meats, tripe, finely ground bone, and a vitamin/mineral supplement. GA is expanded to include ash, calcium, phosphorus, and magnesium. A new product introduction is chicken-based; products with fruit and vegetables included are planned. Product formed in 5-pound rolls, a 5-pound roll of patties, or a 3-pound Ziploc bag of "nibbles" – grape-sized chunks.</p>
<p><b>Aunt Jeni's Home Made 4 Life</b> Temple Hills, MD (301) 702-0123 auntjeni.com</p> 	<p>Aunt Jeni's canine diets are all single-protein mixes (lamb, chicken, turkey, beef, goat, or rabbit) with vegetables and supplements such as eggs, garlic, parsley, honey, apple cider vinegar, flaxseed, kelp, or others. All diets except beef include raw ground bone, and all are "complete and balanced;" a complete nutritional analysis is available for each variety. Yes! Products arrive with helpful literature (Jennifer Boniface, owner of Aunt Jeni's, has a BA and MA in animal science/nutrition). Direct-shipped.</p>

**VENDOR INFO**

**COMMENTS**

**BARFWorld**

Saskatoon, Saskatchewan, Canada  
 (866) 282-BARF  
 barfworld.com



These products were formulated by Ian Billinghurst, the Australian veterinarian who did much to popularize “biologically appropriate raw diets (BARF)” diets for dogs with his books *Give Your Dog a Bone*, *Grow Your Pups With Bones*, and *The BARF Diet*. (Note: Dr. Billinghurst is no longer affiliated with this company.) “Complete and balanced” chicken, beef, and lamb varieties are available, as well as a combination-meat variety with the three protein sources mentioned above plus pork. All products include ground bone, organ meat, vegetables, some fruit, and some supplements. GA is expanded to include calcium and phosphorus. BARFWorld also sells a variety of additional diet ingredients, supplements, and literature, and hosts a discussion list for people who feed bones and raw food.

**Bravo Raw Diet**

Vernon, CT  
 (866) 922-9222  
 bravorawdiet.com



Bravo offers a staggering array of products, led by its “Bravo Blends,” which include a single animal source of muscle meat, ground bone, and organ meat, and organic vegetables. Varieties include chicken, turkey, lamb, beef, and pork, and a basic GA is available for each product. The blends are also available with Murray’s all-natural chicken, and Eberly certified organic chicken or turkey. Bravo uses grass-fed beef from Australia and New Zealand, and grass-fed lamb from New Zealand. The company also sells ground meat/bone mixes, ground meat without bone, exotic meats, raw bones, ground vegetables, supplements, and much more. Bravo’s highly informative booklet, “Bravo Beginnings: Getting Your Dog or Cat Started on a Raw Food Diet,” is a terrific guide to any companion animal owner who is new to raw diets. Bravo plans to add four “complete and balanced” products to its line this summer. Products are available in many retail outlets.

**Celestial Pets**

Westlake Village, CA  
 (818) 707-6331  
 celestiapets.com



Celestial Pets was founded by Celeste Yarnall, author of *Natural Dog Care* and *Natural Cat Care*. In addition to a wide range of supplements and frozen diet ingredients, Celestial Pets also offers two different meat, organ, and vegetable mixes (the loaf mixture contains liver; the patty mixture does not), using four choices of meat: beef, turkey, chicken, or lamb. Celestial Pets offers direction in adding supplements, which are offered separately (or you can provide your own) to complete and balance the diet.

**FarMore**

Sanger, TX  
 (866) 507-8255  
 farmoredogfood.com



FarMore offers three “complete and balanced” diets, each based on a single protein – either beef, buffalo, or chicken. Each contains muscle meat, ground bone, vegetables, liver, kidney, and some supplements, such as flaxseed, salmon oil, cod liver oil, etc. Sold in 5-, 12-, and 30-pound boxes. A basic GA is offered for each product. While most of the other frozen, raw diet makers provide their products via direct-ship to your home, FarMore sells its diets exclusively in retail outlets.

**Grandad's Pet Foods**

Lodi, CA  
 (209) 3683025  
 grandadspetfoods.com



Grandad’s offers several mixtures meant to form the base of your dog’s natural diet; you add supplements as needed to complete and balance the diet. Human-grade Rocky® (free-range) chicken and beef mixtures are available, with and without ground chicken bone (Grandad’s does not use beef bones), organ meats, and vegetables. Products are sold in “chubbs,” essentially a frozen tube of ground food. Shipped via UPS, with local deliveries in some parts of California, and retail locations in the West.

**Halshan**

Harbor City, CA  
 (888) 766 -9725  
 halshan.com



Another wealth of varied offerings, including 13 mixes of vegetables and an individual source of protein (beef, “Coleman” beef, lamb, venison, ostrich, chicken, Rocky Jr.® chicken, turkey, “Dietstel” turkey, duck, buffalo, rabbit, and fish); 4 vegetable/heart mixes, 5 mixes that include ground bone, and 11 different types of ground muscle meat. Halshan offers guidance to dog owners who wish to add supplements to make the diets “complete and balanced.” Here’s the most interesting part: These products are made of “consumable” ingredients in a USDA-inspected facility for human consumption. This is possible because they are not labelled as “pet food.”

**Natural Balance Pet Foods**

Pacoima, CA  
 (800) 829-4493  
 naturalbalanceinc.com



Most of the companies here specialize in just frozen raw diets; Natural Balance is unusual in that it makes several types of dog food: dry, canned, food “rolls” (sort of like sausage in a plastic tube), and, of course, frozen raw diets – TWO types of frozen diets, in fact. Currently, two varieties are offered in Natural Balance’s “Canine Raw Food Diet” line; both are “complete and balanced” and contain vegetables and fruit, various supplements, and a vitamin/mineral mix. The beef-based food contains muscle meat, heart, and ground bone; the chicken-based formula contains muscle meat and ground bone. The company’s “Frozen Gourmet Loaves” line includes five varieties (beef, chicken, lamb, buffalo, and venison); each of these is also “complete and balanced.” Unlike most of the other products described in this article, these products contain grain – oatmeal and rice.



**VENDOR INFO**

**COMMENTS**

**Nature's Menu**

Lake Geneva, WI  
(866) FEED-RAW (333-3729)  
naturemenu.com



The frozen, ground-meat patties offered by Nature's Menu are intended as a convenient, good-quality source of meat with which to form the basis of a raw diet. Beef, chicken, turkey, and lamb varieties are available. The lamb is grass-fed; the chicken is organic. Each variety contains muscle and organ meat. None contain ground bone; Nature's Menu suggests the use of a calcium supplement comprised of a high-grade calcium carbonate and milk calcium. The company sells a vitamin/mineral mix and other supplements.

**Nature's Variety's Prairie**

Lincoln, NE  
(888) 519-7387  
naturevariety.com



Nature's Variety is another rare company that offers dog food in many forms: dry, canned, freeze-dried, and raw frozen. Five varieties are available, each of them are "complete and balanced," and containing 95 percent meat/organ/bone and 5 percent vegetables, fruit, and supplements. Four contain only one animal source of protein (chicken, lamb, beef, or venison). One contains chicken and turkey. The chicken variety contains organic chicken. All varieties contain muscle and organ meat, and fresh ground bone. The company makes a *complete* nutritional analysis available for each product, with all the macronutrients (protein, fat, carbohydrates, moisture), vitamins and minerals, amino acids, and even fatty acids quantified. Cool! These products are available in retail outlets only.

**Primal Pet Foods**

San Francisco, CA  
(866) 566-4652  
primalpetfoods.com



Before the start-up of Primal Pet Foods, Matt Koss, the company's co-founder and co-owner, prepared French and Mediterranean cuisine as a chef in upscale restaurants in San Francisco. Today, he's passionate about healthy gourmet cuisine for canines. Primal offers four raw, frozen, "complete and balanced" diets. The chicken- and duck-based foods are comprised of 70 percent meat and ground bones and 30 percent produce and supplements (including a vitamin/mineral supplement). The beef- and lamb-based foods are 60 percent meat and 40 percent produce and supplements. Eggshell powder is used as the calcium source in the latter two foods. Primal uses organic produce (including carrots, kale, yams, broccoli, and apples). A basic GA is listed on the product label, but the company makes a complete nutritional analysis available on its Web site for each product. Awesome! Available in retail outlets (including veterinary offices) and some regional distributors.

**Raw Advantage**

Stanwood, WA  
(360) 387-5185  
rawadvantagepetfood.com



Raw Advantage offers two organic frozen "dinners" for dogs, and unlike most of the other products here, both contain grain. Both use all organic poultry, grain, and vegetables, and are labelled as "complete and balanced." The chicken variety is comprised of 40 percent chicken muscle meat and ground bone, 26.5 percent cooked millet, 20 percent soaked oats, and 9 percent vegetables, with the balance being supplements such as flaxseed, kelp, and wheatgrass. The turkey variety is comprised of 50 percent turkey meat and ground bone, 22.5 percent soaked oats, 15 percent soaked barley, and 8 percent vegetables, with the balance being supplements. The basic GA is presented, with the addition of values for calcium, phosphorus, and magnesium. The company also sells a number of ground, frozen meats, meat/vegetable mixes, and whole raw bones for more experienced owners to use in building raw diets of their own design. On its Web site, Raw Advantage also lists a number of holistic veterinarians, mostly from the Pacific Northwest, who are familiar with Raw Advantage and offer support for pet owners feeding a raw diet.

**Steve's Real Food for Dogs**

Eugene, OR  
(888) 526-1900  
stevesrealfood.com



Steve's offers three varieties of "complete and balanced" diets, each with a single protein source – beef, chicken, and turkey – and recommends that owners rotate between feeding the three. The beef variety uses bonemeal as its calcium source; the chicken and turkey varieties include raw ground bone. Each contains organ meats, fruit, vegetables, a gluten-free rice bran, and supplements such as flaxseed and kelp. Steve's claims that the food nuggets, unlike "patties" or "tubed" foods, would become squashed if the product is ever mishandled (accidentally thawed) during transport or retail storage, helping the buyer feel secure in the safety of the (unsquashed) product's safety. The company lists the foods' GA on the label, and offers a complete nutritional analysis of each food on its Web site. Also listed there are the sources for all of Steve's major ingredients. Products are sold via online third-party retailers and in retail outlets.

**Three Cheers Raw! Raw! Raw!**

North Lima, OH  
(330) 549-3077  
threecheersrawraw.com



Most of Three Cheers' canine mixes are made with a 4-1 meat-vegetable ratio, prepared with a coarser grind than that seen in most other products (company owner Janet Klapac comments, "Dogs don't need to eat baby food!"). Varieties include locally grown grass-fed beef, lamb, turkey, pork, wild venison (in hunting season), and whitefish; lamb and tripe varieties contain no ground bone. All mixes include muscle and organ meat. Rabbit, tripe, and quail are also available in a ground form (without vegetables). Three Cheers' Web site offers simple, clear instruction on transitioning your dog to a raw diet. A basic GA, plus ash content, is on the label of all the foods. Available from retail locations in Ohio, direct-shipped only to locations within range of an overnight delivery from Ohio, and from online retailer rawfeeder.com.

# I Submit!

*These canine gestures are intended to do more than just “calm” others.*

BY PAT MILLER

**K**atie, our cranky, creaky, geriatric Australian Kelpie, is grumpy with just about every other member of the canine species. I was at least a little concerned when we brought home our most recent family member, Bonnie, a Scottie/Corgi/Whatever-mix.

At age five months, Bonnie came with a personality that was one of the softest and sweetest I've seen in ages. In fact, I suspect she was surrendered to the shelter by her owner of just one week in large part due to the fact that she urinated submissively the instant anyone spoke to or touched her. I worried that Katie's gruff admonitions would be too much for her sensitive nature.

Quite to the contrary, Bonnie's willingness to defer to Katie with obviously submissive body language at every turn has



**The white dog is actively but submissively seeking the attention and approval of the higher-ranking dog. Contrast this with the passive submission of a dog who becomes super-still, hoping to go unnoticed by a higher-ranking dog (photo next page).**

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## WHAT YOU CAN DO . . .

- **Take time to observe both your dog and other dogs. Start noticing in greater detail the body language signals they use to communicate with you, other dogs, and other humans.**
- **Watch videos and DVDs on dog body language – nice because you can back up and watch a segment repeatedly to fully analyze the behavior – and then look for similar behaviors in the dogs you observe.**
- **Look especially for appeasement and deference behaviors and train yourself to respond appropriately when they are offered.**

averted any potential conflict. In fact, Bonnie gets along with Katie – and the rest of our pack – better than any of our other dogs simply *because* she's so appealing. I was surprised and immensely delighted when I looked out my office window one day last week to see Bonnie and Katie playing, no, romping together in the backyard!

## Reading dogs

Paradigm shifts in the dog-training world in the last decade have led dog owners and trainers to pay closer attention to the observation, interpretation, and understanding of canine body language. Norwegian dog trainer Turid Rugaas identified more than 30 body gestures that dogs make in social settings – whether with members of their own species or with humans – that, she postulated, demonstrated an intent to get along with other “pack members.” Rugaas coined the term “calming signals” to collectively describe these gestures and their purpose, and the term has found acceptance and everyday use as dog owners and trainers

discuss dog behavior. Clumped behind that deceptively simple phrase, however, is a complex constellation of behaviors that accomplish many more purposes than just “calming.”

Rugaas has asserted that dogs purposely use “calming signals” to calm the other being with whom the dog is interacting. The suggestion is that the behaviors brought under this broad umbrella are deliberate.

Today, many ethologists (people who study animal behavior) speculate that the communications now popularly identified as calming signals are often hardwired, automatic responses rather than deliberate ones, and are far more complicated than a simple attempt to *calm* a dog's social partners. They likely have more to do with the presenter's own state of mind and/or an end goal to affect the *behavior* of the other dog or human for the purpose of self-preservation – rather than a deliberate intent to change the *state of mind* of the other being.

Communicative behaviors are adaptive in nature, helping canids maintain peaceful



pack relationships without resorting to violence. Ethologists suggest that nonthreatening canine behaviors are more important in keeping the peace in packs than dominance behaviors – that relations are primarily maintained by deference behaviors exhibited by subordinates toward high-ranking members, not dominance displays by the alpha member. Canine social groups may more appropriately be described as *deference* hierarchies rather than dominance hierarchies.

As such, the dozens of behaviors that have been dubbed calming signals might more appropriately be separated into several subgroups called appeasement (active submission), deference (passive submission), displacement, stress signs, and threat (dominance) displays.

By observing dogs, learning to recognize and respond to the various behaviors in this constellation, your relationships with canines will become richer, and your translations of dogspeak more accurate. Let's start by taking a closer look at the submissive/subordinate behaviors. We'll examine other classes of behaviors in future articles.

## Please appease me

As stated above, subordinate behaviors can be grouped into two general categories: *active submission (appeasement)*, characterized by increased activity and diminished posture, and *passive submission (deference)*, denoted by decreased activity and

lowered body posture. The difference lies in whether the dog offering the submissive behavior desires attention from the higher-ranking individual, or would prefer that the attention he's receiving go away.

Active submission may also be identified as attention-seeking behavior: nuzzling, licking (including licking ears and lips), jumping up, paw lifts and pawing motions, "smiling," teeth clacking, crouching, pretzeling, and play-bows. The dog's ears may be pulled back, and his tail may be wagging expressively, with wide, sweeping movements or circles. These behaviors can often be seen during greetings between dog and owner, or between friendly, compatible dogs.

Passive submission usually involves a dramatic reduction in activity with a goal of diverting attention, and is most often seen in a lower-ranking dog when threats are directed toward him by a higher-ranking member of the social group (dog or human). The dog's ears may be pressed flat against the head, with his tail tucked between legs. The subordinate dog often freezes, averting eye contact, lowering his head and body, sometimes to the point of going "belly-up" on the ground. Passive submission may also be accompanied by submissive urination.

Below are descriptions of several common submissive behaviors, and suggestions for appropriate responses when the behavior is directed toward humans. When directed toward dogs, submissive behaviors

usually elicit appropriate responses from the other canine. In the future, I'll describe one instance in which submissive behaviors *don't* elicit appropriate responses from the other dog: when the other dog responds with increased intimidation – a classic "playground bully." Dogs who respond to an overt display of submission with increased aggression are not displaying normal canine behavior, and may need special management to prevent them from traumatizing their social partners.

## Active submission (appeasement)

Some of the gestures exhibited by a dog who is demonstrating active submission can be obnoxious to us humans. The important thing to recognize is that, with these behaviors, the dog is communicating his recognition that you are his leader, a higher-ranked individual. Be a good leader and let him know how he can best appease you by redirecting his behavior into something less bothersome.

■ **Nuzzling** – Dog pushes muzzle against you, perhaps under your arm or hand. If you respond by giving the dog attention (petting, making eye contact, speaking to him) you are positively reinforcing the behavior and it will continue or increase. This is fine if you like the behavior – and some people do. It can, however, become annoying if the dog is very persistent.

You may prefer to extinguish the behavior using "negative punishment." When the dog nuzzles you, turn away or even walk away. The dog is seeking attention. If nuzzling consistently evokes the opposite of the intended response – attention goes away – the behavior will stop. Of course, you must educate all family members and visitors to respond to nuzzling in the same way, or the behavior will be randomly reinforced and will persist.

Another option is to put the behavior on cue, and teach the dog that nudging only works to elicit attention when you ask for it. You can also preempt the nuzzle by consistently asking the dog for an incompatible behavior that gains him the attention he seeks. A "sit" or "down" can serve as incompatible and polite attention-seeking behaviors if you consistently give your dog attention for those.

■ **Licking** – Dog licks body parts and clothes, including lip-licking, ear-licking, and nose-licking. Again, if you like this be-



**"Nothing to see here, sir . . . Please go away so I can breathe again!" Even though the Shepherd-mix looks friendly enough, the black dog is younger, less socially experienced, and lower-ranking. He freezes, keeping his tail low, and keeps his gaze averted in an attempt to disappear from the other dog's radar.**

havior, you can encourage it with positive reinforcement – giving your dog the attention he seeks when he licks.

If you don't enjoy your dog's licking, use negative punishment (licking makes you go away) and install an incompatible behavior in its place. Having your dog hold a toy in mouth when he approaches people is a great attention-eliciting behavior that's incompatible with licking.

■ **Jumping up** – Dog puts paws on human body, often projecting body against human with some force. A lot of small-dog owners don't seem to object to jumping up as an attention-getter, and a lot of small dogs are incorrigible jump-uppers as a result. Not all people with small dogs like this, however, and most people who live with medium-to-large dogs much prefer four-on-the-floor.

Jumping as an attention-getting behav-

ior is positively reinforced by attention, even behavior that dog owners may offer to try to reduce jumping up, such as pushing the dog away, or telling him to get down. Once again, removing yourself from contact with the dog – taking the attention away – will reduce the behavior, especially if you replace it by reinforcing an incompatible behavior such as sit or down. See the pattern yet?

■ **Paw lifts and pawing motions** – Dog lifts paw or paws at human. While uncontrolled pawing behavior can be annoying, a simple paw lift is a lovely behavior to put on cue and turn into a series of fun and useful behaviors. A paw lift on cue can become “shake,” “wave,” “high five,” and “salute,” and pawing motions can be useful for turning appliances on and off, indicating found objects for dogs doing scent and search work, pushing a ball (canine soccer!), and

playing an electronic keyboard. Persistent, annoying pawing is best extinguished by ignoring the behavior and putting an incompatible behavior on cue, such as four-on-the-floor, or a gentle paw lift.

■ **Teeth clacking** – Dog's teeth click or chatter. This is an innocuous behavior, and one that you can simply ignore – unless you're an avid trainer and want to encourage it by clicking and treating when the dog offers it, then putting it on cue.

■ **Crouching** – Dog lowers his body closer to the ground. This is also an innocuous attention-seeking behavior. If it bothers you, ignore it, and reinforce your dog when he approaches you standing taller. Training, using positive methods, will also increase your dog's confidence and decrease incidents where he feels compelled to make himself smaller.

## Major Misunderstandings Between Primates and Canines

Humans have long misunderstood their dogs' submissive behaviors and reacted inappropriately as a result. In many human cultures, failure to make eye contact is a sign of someone who is untruthful, shifty, and sneaky. Similarly, *dogs* who display submissive behaviors such as averting eyes and lowering body posture (“slinking”) are often perceived as wimpy, cowardly, sneaky, manipulative, guilty, and disobedient – misinterpretations based on our familiarity with primate body language.

Unless wise to the ways of canid communication, humans tend to assume a dog offering lowered body-posture deference behaviors is expressing guilt, when in fact he's only responding to a perceived threat in his human's body language.

Sometimes, the more the dog acts guilty, the more righteously angry his human gets, the more submissive (guiltier) the dog acts – a lose/lose cycle if there ever was one.

Submissive urination is another case in point. Owners who still employ the old-fashioned punishment dog-training paradigm may attempt to physically or verbally “correct” a pup for urinating submissively – the exact wrong thing to do.

A pup urinates submissively in response to a perceived threat, such as the assertive approach of a higher-ranking member of

the social group. In the dog pack, this is a useful survival mechanism that effectively averts the wrath of most adult dogs, who could otherwise do serious harm to a young subordinate.

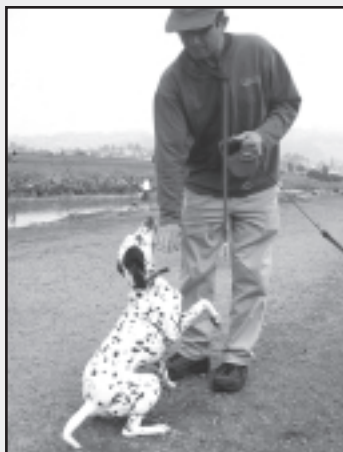
Unfortunately, when the higher-ranking member is a human, the behavior (urination) that should avert wrath often initiates or escalates anger in the human. The pup's response is to urinate more – not less. The human gets angrier, the pup pees more, the human gets even angrier, the pup pees even more in a desperate attempt to turn off the anger – and another lose-lose cycle is born.

Even the submissive grin is misunderstood. Sadly, it can be mistaken for a snarl, and a dog who is actually anything but may be labeled as aggressive. It's also often perceived as a doggy version of a happy smile – a less-damaging interpretation, but still a misperception of a clearly subordinate display.

Interestingly, the submissive grin is believed to be an imitation of the human smile, since dogs don't normally display this behavior to each other, only to humans.

While some behaviorists consider the grin to be an attention-seeking appeasement gesture, others consider it more of a threat-averting deference signal. In any case, it's important to understand that

the dog who grins is making a status statement (your rank is higher than his), and is exhibiting neither an aggressive threat nor a relaxed, contented smile.



**Using a physical “correction” for attention-seeking behavior such as jumping up often guarantees it will continue.**



**When a dog “slinks,” with lowered body posture and averted eyes, she exhibits her deference to you, not guilt.**





The yellow Lab signals his active submission to the older female Pointer by pretzeling his body, lowering his forequarters and head, lifting a paw, keeping his tail waving big and low, and holding his ears back.



This dog is motionless, signalling his passive submission to his handler in a force-based training class (complete with choke chain – we don't approve of either one). His eyes are averted and his tail tucked.

■ **Pretzeling** – Dog corkscrews his body into a “C” shape. This is also a harmless, kind of cute behavior that I’d be tempted to reinforce and put on cue!

■ **Play bow** – Dog lowers his forequarters while keeping his hindquarters elevated. This is a lovely behavior, and I can’t imagine someone wanting to extinguish it. I’d reinforce and put it on cue.

■ **Smiling** – Dog lifts his lips into a grimace that is unaccompanied by other behaviors that would indicate at threat. I see no reason to try to make this behavior go away as long as humans around the dog understand that it’s not an aggressive behavior. I think it’s quite cute! I’d encourage it by clicking and treating when the dog offers a smile, and then put it on cue!

### Passive submission (deference)

Deference behaviors are offered by the dog in response to a *perceived* threat – there doesn’t have to be any intent to threaten on the part of the person interacting with the dog. For all of the deference behaviors listed below, the appropriate response is to determine how/why the dog perceives a human or humans as threatening, and then work to change the dog’s perception through consistent positive associations with the perceived threat(s).

Human behaviors that can be perceived as threatening by a dog (thereby eliciting deference behaviors) include direct eye contact, a full-frontal approach, a loud voice, bending over the dog, and patting him on top of the head.

Punishing or “correcting” a dog for offering a deference behavior is the worst thing you can do if you hope to modify the behavior. He will only intensify his deference in a futile attempt to convince you he’s being subordinate. In a worst-case scenario, he may even become defensively aggressive if his deference signals aren’t working.

Instead, ignore the behaviors when they happen, and work to build your dog’s confidence in relationships by being consistently nonthreatening and insisting others do the same. You can also build confidence through positive training; when the dog has a better understanding of how to influence and predict his environment, his confidence will increase.

A dog’s deference behaviors may include any or all of the following:

■ **Tail tucked** – Dog pulls his tail tightly against his belly to cover and protect his vulnerable underparts. Even dogs with “gay” tails or tails that curl over their backs can do this when sufficiently threatened.

■ **Freeze** – Dog ceases all motion as he attempts to convey his submission to the party threatening him – usually in conjunction with averting eyes.

■ **Averting eye contact** – Dog shifts eyes to avoid making eye contact, or actually turns head away.

■ **Lowering head and body** – Dog ducks head and/or crouches closer to the ground.

■ **“Belly-up”** – Dog rolls over on back

and exposes vulnerable underparts. (Can also be a simple invitation for a tummy rub when not accompanied by other deference behaviors.)

■ **Submissive urination** – Dog urinates in response to perceived threat (not necessarily an actual threat) in a person’s voice, touch or approach.

### More to come

It’s been a joy to watch Bonnie develop over the past months. Training and a consistent lack of threats or intimidation in her relationship with us and the other humans in her life have increased her confidence. While she still offers appropriate appeasement and deference behaviors to Katie and the other canine members of our pack, her submissive urination with humans has ceased and her confidence and comfort with us has increased exponentially. It’s been weeks since a pat on the head resulted in a puddle on the floor!

In future articles, I’ll describe the other canine behaviors that have been (inaccurately, I think) called “calming signals” – what I would label as displacement, stress signs, and threat (dominance) displays.

*For recommended books and DVDs that can further your study of canine body language, see “Resources,” page 24. 🐾*

*Pat Miller, CPDT, is WDJ’s Training Editor. Miller lives in Hagerstown, Maryland, site of her Peaceable Paws training center. For book purchasing or contact information, see “Resources,” page 24.*



# Get the Worms Out

*Treatment for heartworm infection is critical, though risky.*

BY MARY STRAUS

**Editor's note:** In last month's article "Heartworm: Don't Take It Lightly," Mary Straus discussed the life cycle of the heartworm, and how it infects dogs. She also discussed heartworm prevention strategies. This month, she explains treatment for dogs who are already infected with heartworm.

**W**hether or not you choose to use conventional heartworm preventatives, there is always the possibility that you may one day find yourself with a heartworm-positive dog, and be faced with the decision of how to treat her. Unfortunately, there is no one right answer when it comes to heartworm treatment. Decisions must be tailored to the individual dog, taking into account both the extent of the heartworm infestation, and the dog's overall age, activity level, and health.

There are a number of reasons why someone may have a dog who is heartworm-positive. One of the most common is adopting a dog from a rescue organization. Especially in the South where heartworm is



Like many dogs who are adopted from an animal shelter, Taffy initially tested negative for heartworm and was given preventative medication, but tested positive for the parasites six months later.

ubiquitous, most dogs that are not given heartworm preventative regularly will test positive for heartworm.

There is also a small chance that your dog could become infected with heartworms if you choose to extend the time between doses of the heartworm preventative you give your dog beyond what is recommended on the label, if you give less than the recommended dose, or if your dog should vomit up the pill without your knowledge. Your dog has a much higher risk of becoming infected with heartworms if you choose not to use preventatives or if you use alternative methods that have not been shown to be effective.

It is important to understand that heartworm infections are not detectable until about six months after a dog has been bitten by a heartworm-infected mosquito. (This is why it's not possible to have a heartworm test performed monthly and give the preventative only if an infection is found.) Blood tests will not detect heartworms in a dog until the larvae have matured into adult worms, which takes about six months following initial infection. Symptoms, such as coughing, lethargy, and difficulty breathing, will not show up until the infection is advanced.

Judy Wilds, of Corpus Christi, Texas, adopted her dog, Taffy, in September 2004. Taffy tested negative for heartworms when adopted, and was started on a regular heartworm preventative schedule. Six months later, a routine heartworm test showed that Taffy was heartworm-positive. "Thankfully, a holistic vet had suggested that I have her rechecked six months after her first test, as it was possible (though unlikely) that she could have heartworms," says Judy. In this case, Taffy was obviously infected when she was adopted, but had not had the infection long enough for it to be detectable.

It's a good idea to run a heartworm test on an adopted dog with an unknown medical history immediately upon adoption and then again about six months later. The same

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**WHAT YOU CAN DO . . .**

- **Confirm any heartworm positive test before doing treatment.**
- **Do additional tests, including blood work and chest X-ray, to determine the stage of heartworm infection before deciding how to treat.**
- **Restrict your dog's activity and stress levels during treatment.**
- **Be aware of the danger signs and get your dog to the vet immediately if any are seen during treatment.**

would apply if there was a lapse in heartworm preventative dosing for more than two months during the heartworm "season."

## Staging the infection

A heartworm antigen test is the most commonly used procedure for detecting heartworm infection. These tests are extremely specific and have almost no false positives, but it is still a good idea to confirm any positive test results with a second test. There are a number of different heartworm antigen tests, so it is best to confirm using a different test than the one that gave the initial positive result.

If the dog has not been given heartworm preventative recently, then a test for circulating microfilariae can also be done, which will confirm the presence of adult, breeding heartworms in the body. However, a negative microfilariae test cannot be used to rule out heartworm infection for a number of reasons.

All heartworm preventatives kill the

microfilariae that are in the dog's blood, so any dog who has been given heartworm preventatives recently may be negative for microfilariae but could still have an infection. There are also cases of single-sex heartworm infection where no microfilariae are produced. A population of all male or all female worms cannot produce microfilariae. And, finally, in any dog with a very low heartworm burden – say, just a couple of worms – the microfilariae may not be detected (this can also cause a false negative on the antigen test).

Once heartworm infection has been confirmed, additional tests should be done to try to determine how extensive the infestation is. Radiographs can reveal inflammation and damage to the arteries and the heart, and blood tests will show whether the liver and kidneys have been affected.

Heartworm infection is divided into four or five stages (depending on the model used), based on the severity of the infestation and the age and health of the dog.

Stage 1 (mild) consists of young, healthy dogs with no symptoms and minimal changes evident on X-rays.

Moderate (stage 2) infection will show heartworm disease that is evident on X-rays, but symptoms are minimal, mostly coughing. Stage 3 is a severe infection, with weight loss, coughing, difficulty breathing, more damage visible on X-rays, along with liver and/or kidney damage.

Stages 4 and 5 are considered critical, with the dog often collapsing in shock. These dogs will not survive ordinary heartworm treatment, and must have the worms surgically removed if they are to have any hope of survival.

## Heartworm treatments

There are three conventional methods of treating heartworm: a “fast kill” method using Immiticide (melarsomine); a “slow kill” method employing Heartgard (ivermectin); and a surgical method in which the worms are surgically removed from the arteries. In addition, there are so-called holistic treatments such as Paratox homeopathic or herbal preparations.

In each case, and indeed even if no treatment is done, there is a risk of the dog dying from a pulmonary embolism caused by worm die-off. In addition, there is risk while the worms are present of damage to the heart, the arteries, and the rest of the body, due to inflammation and immune reaction.

When deciding which method to use, you need to take into account the age of your

## Retail Sources for DEC

In last month's article, “Heartworm: Don't Take It Lightly,” we discussed conventional preventative drugs, and mentioned that while one, diethylcarbamazine (DEC), was no longer available as Filaribits (from Pfizer, which stopped selling the drug in early 2005), it was available in a generic form. DEC is the oldest preventative on the market, and the one preferred by many owners of dogs who have an inherited sensitivity to ivermectin, which is found in Heartgard and Heartgard Plus.

As we went to press with the March issue, we saw DEC listed in several pet supply catalogs that carry veterinary drugs. But within a week of publication, we began hearing from frustrated owners that they couldn't find DEC anywhere. We are trying to determine why even the veterinary pharmacies that were compounding DEC themselves for their clients have ceased to do so.

DEC is still manufactured elsewhere in the world, and we have learned that many U.S. dog owners buy the drug as “Dimmitrol,” made by an Australian company called Mavlab. We found two online veterinary supply companies that sold Dimmitrol to our readers: canadavet.com (877-822-6838) and interpet.biz (this business does not publish its phone number). If we find a US-based source for American-made DEC, we'll let you know in a future issue.

dog, his level of activity, and the severity of the infestation.

## Immiticide (fast kill)

Standard treatment with Immiticide consists of giving two injections 24 hours apart, then keeping the dog strictly confined for the next four to six weeks. The injections must be given in a painful location – the muscle close to the dog's spine in the lumbar (lower back) area. The worms start to die immediately. As their bodies begin to decompose, pieces are “shed” into the dog's bloodstream and filtered out through the dog's lungs. This can cause the dog to cough and gag, or lead to a fatal pulmonary embolism.

The dog must be kept confined and his physical exertion kept to an absolute minimum, in order to prevent pieces of the dead worms from being forced by a rapid heart rate and/or increased blood pressure into clogging the tiny blood vessels in his lungs, causing embolisms. This generally means that the dog must be kept crated or penned and allowed out to potty only on a leash. Aspirin may be prescribed to lower the risk of blood clots, though this is controversial. Remember that it's dangerous to combine aspirin with any other nonsteroidal anti-inflammatory drug (NSAID) or with prednisone, and to give it only with food.

A safer approach, sometimes called a “split-dose,” “staged-kill,” or “three-dose” protocol, consists of giving one injection, waiting one month or more, then giving two more injections 24 hours apart. This has the benefit of reducing the worm burden by

about 30 to 50 percent with the initial treatment, before the balance are killed by the second set of injections.

This protocol is more expensive, requiring three injections of the drug instead of two. Also, the dog must be kept strictly confined for a longer period of time. Nevertheless, this split-dose protocol over two months is recommended for dogs with heavy worm burdens or other health problems (Stage 3), and is also considered safer for dogs with a lower worm burden.

Judy Wilds treated Taffy (described above) using the fast kill method with Immiticide. Although it is recommended to keep treated dogs in a crate to limit their exertion, Taffy was unused to being confined, and her vet was concerned that crating her could be dangerous, as excess stress and barking could cause lung problems. Wilds used a small outdoor pen for Taffy, instead.

“Taffy handled the heartworm treatment quite well. One evening, however, she gave me quite a scare when she began gagging. Later, I realized that this was related to her heartworm treatment,” Wilds says.

Some coughing or gagging is considered normal in dogs being treated for heartworm infection. However, it is important to understand that, whatever method of heartworm treatment is used, any respiratory difficulty in dogs receiving therapy should be considered a life-threatening emergency.

If the coughing or gagging is very heavy, seems uncontrollable, or causes the dog distress, get her to a vet right away. Vomiting or any bloody discharge combined with leth-

argy, fever, and/or pale gums should also be considered an emergency, and the dog should be taken to the veterinary or emergency clinic immediately. Corticosteroids, fluids, and oxygen may be needed at this time to help the dog survive.

Immiticide (melarsomine) has a much lower risk of complications than its historical predecessor, another arsenic compound called Caparsolate (thiacetarsamide sodium). Unlike Caparsolate, Immiticide does not damage the liver and kidneys, and kills a higher percentage of worms, so that fewer treatments are needed.

However, the Immiticide injections will cause muscular pain and soreness for a few days. It's critical that the injections be done in an exacting fashion in order to minimize this effect. This includes changing needles after filling the syringe before injecting,

choosing the site with care, putting pressure on the site after injection, and alternating sites for future injections.

Corticosteroids (e.g., dexamethasone) can be given at the same time as the Immiticide injection to lessen the reaction. Combination painkiller and sedative drugs, such as xylazine, may also be used to reduce the pain of the injection. Pain medications, such as NSAIDs, are often prescribed for a few days.

Christie Keith, a Scottish Deerhound breeder from Northern California, had two dogs who were heartworm-positive. "Raven had some obvious clinical changes, and was showing some symptoms (coughing). Due to her hyperreactive immune system, I was concerned that the presence of the worms in her pulmonary arteries, with their known ability to stimulate autoimmune reactions,

would further worsen her existing allergies. So I opted to do the conventional Immiticide heartworm treatment, with the thought that it would be best to get the worms out of her more quickly."

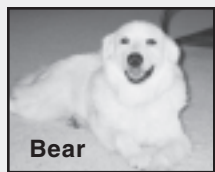
Christie intended to treat Raven with the split-dose schedule, but a couple of weeks after the first dose, Raven, despite having been completely confined and kept from activity more strenuous than going out into a tiny potty yard on a leash, developed a series of pulmonary emboli (clots), and nearly died. "We rushed her to the ER and when we got there, my mom, who was with her in the back of the van, thought she had died. She was blue," recalls Keith. Emergency treatment saved Raven's life. Tests conducted after the first treatment revealed no trace of heartworms, so Raven didn't have to undergo another round of treatment.

## Stories From the Front: Treating Rescue Dogs for Heartworm

Rescue groups, especially those located in the South, often deal with large numbers of heartworm-positive dogs. Darryl Bitter is the dog coordinator for the Frisco Humane Society, an all-breed rescue near Dallas, Texas. She estimates that 30 percent of the adult dogs that they rescue are heartworm-positive. A colleague who does Boxer rescue in the same area says that 75 percent of their rescues test positive for heartworms.

"In the past 18 months, we have treated 20 dogs who were heartworm-positive," says Bitter. The dogs were treated with Immiticide, either the standard two injections in two days, or the split-dose schedule two, four, or six weeks apart, depending on the health of the dog. The dogs were confined to a crate for a month following each injection, and taken outside only on leash. Prednisone and antibiotics were given during the treatment.

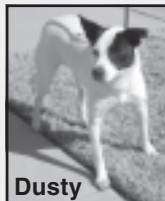
"Four of these dogs had bad reactions to the shedding of the worms, coughing blood and unable to breathe," says Bitter. "Typically these reactions took place two to three weeks after the injection. All four dogs were hospitalized and placed in oxygen tents for at least two days. Immediate treatment is required as soon as a dog has this reaction, otherwise she could die."



Bear

Two of the four bad experiences she's witnessed stand out particularly, says Bitter. "Bear, a Great Pyrenees, had a particularly bad reaction. His foster person came home to find pools of blood in his crate and Bear was coughing blood.

Fortunately she was able to rush him to the vet and he survived after a week in hospital. The other, Dusty, a small Heeler mix, just collapsed as her foster person was taking her outside on the leash. She was rushed to the vet as well and spent three days in hospital. Fortunately, she also recovered."



Dusty

Juli Thompson, who lives in Central Florida, has put two rescue dogs thru heartworm treatment. The first dog, Oakley,

was a year old when she was adopted. She was treated with Immiticide using the split-dose schedule, one month apart. She was kept crated and walked on leash, and recovered without a problem.



Oakley

Thompson's other dog, Bo, was five or six years old at the time of his adoption, and had a more severe infestation. "He was coughing at any exertion. He went through the same treatment and then had to spend almost two months being hand-walked and low-key because the vet was very worried about clots. He survived and is still alive and very happy. He still coughs after heavy exercise due to damage done to his heart."

Another issue that may come up with rescue dogs is when to schedule spay/neuter surgery if they are heartworm-positive. Heartworm infection increases the risk of anesthesia. Although there is less risk with lower worm burdens, it is usually considered best to treat the dogs for heartworm first, before proceeding with surgery six weeks or more following the final heartworm treatment.

"Dogs with pulmonary arteries blocked by adult heartworms are at greater risk for anesthetic death at the time of surgery or during recovery. The adult worms are affected by the anesthetic and will plug up distal branches of the pulmonary artery, particularly the right branch," says J. Theis, DVM, a specialist in heartworm from the University of California at Davis.

Whenever heartworm treatment is delayed, for whatever reason, it is usually a good idea to start the dog on monthly Heartgard in the meantime, which will help destroy the microfilariae and weaken the adult worms. Because there is a small chance of an adverse reaction to this treatment, it should only be done on a day when you are home to observe the dog and seek treatment if necessary. Do not use Interceptor (milbemycin oxime), which is much more dangerous to a dog with heartworms, due to its greater efficacy against microfilariae.



## Heartgard (slow kill)

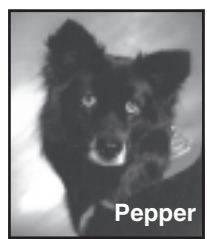
The “slow kill” method, which is a newer approach, consists of giving the dog Heartgard on a monthly basis. This heartworm preventative medication has some effect against the adult worms and should gradually eliminate them over a period of one to two years; without treatment, the worms can live up to five years. The earlier the treatment is started after infection, the more quickly it will work to eliminate the adult worms. Note that only Heartgard (ivermectin) should be used, as Revolution (selamectin) affects far fewer adult worms, and Interceptor (milbemycin oxime) almost none at all.

Although this method is gentler than the use of Immiticide, the danger from the dying worms is still present, and for a much longer period. A recent Italian study showed that pet dogs (as opposed to the caged laboratory dogs this method had been tested on before) did get pulmonary emboli and some of the dogs died of it. The more active the dog, the higher the risk.

In addition, damage is being done to the arteries leading to the heart, and possibly to other areas of the body due to inflammation and immune response as long as the adult worms are present in the body. Most vets recommend using the fast kill method to treat heartworms, unless the dog’s health will not permit it or the owners cannot afford it. In those cases, or in the case of a very mild infection, the slow kill method may be used instead.

Janice Adams adopted Pepper, a Border Collie/Chow-mix, in June 2000. A blood smear in the vet’s office at the time of adoption was positive for microfilariae. “Pepper didn’t seem to have any symptoms of heartworm disease, no coughing or shortness of breath, so, at the recommendation of my regular vet, I elected to start her on Heartgard monthly,” says Adams.

“Pepper is a very calm dog, and didn’t have any activity restrictions. I kept her on Heartgard monthly for about 18 months, then switched her to a low dose of Interceptor on a 45-day schedule. We live in Florida, so I give heartworm preventatives year-round. All subsequent heartworm tests have been negative. She didn’t seem to have any problems related to the heartworm disease or treatment.”



Christie Keith’s second heartworm-positive dog, Bran, had no radiographic changes and no allergies, so Keith opted not to do the Immiticide treatment on him. “I put Bran on Heartgard monthly. At the time, there was less research on the ‘slow kill’ method with Heartgard than there is today, but there was enough that I felt confident it would be effective. And it was; within a few months or a year, he tested heartworm-negative.”



## Other heartworm treatments

**Surgical methods of heartworm removal** require specialized training and instrumentation, and are generally reserved for high-risk patients who would not otherwise be expected to survive. The surgery is followed by one of the standard treatments a few weeks later to kill any remaining worms.

**So-called alternative methods** to kill heartworms, such as Paratox, are no safer than conventional drugs, since they rely on the exact same action – they kill the larvae/worms in the bloodstream. It is the death of the worms that causes the greatest danger to dogs during treatment.

In addition, no studies have been done to show that alternative treatments are effective. If these treatments do have any effect, they would be comparable to the slow kill method, with the same drawback of continued damage to the body while the worms remain present.

Finally, some of the **herbs** used to treat heartworm are considered dangerous and may be toxic in the amounts used to try to kill the worms.

## Additional information

Once the adult worms have been killed, there may still be circulating microfilariae in the bloodstream. Although these microfilariae will not develop into adult worms (they mature further only inside a mosquito), they can be a source of transmission of heartworm disease to other dogs, so it is best to treat the dog with heartworm preventative four to six weeks after heartworm treatment in order to kill them.

Normal monthly preventative doses of Interceptor (0.5 mg/kg) or high doses of Heartgard (50 mcg/kg, approximately eight times the preventative dose) will eliminate most microfilariae immediately. Normal monthly doses of Heartgard or Revolution will also work for this task, but more slowly,

over a period of several months.

Because heartworm treatments can cause an allergic reaction due to the death of the worms and the microfilariae, veterinarians will usually give dogs Benadryl and/or corticosteroids prior to each treatment.

Monthly Heartgard (ivermectin), at preventative doses, should not be strong enough to cause this kind of reaction, although it’s a good idea to stay home the day you give it to your dog.

If Interceptor (milbemycin oxime) at normal doses, or Heartgard at high doses, is used to kill microfilariae following heartworm treatment, anaphylactic shock can occur, especially in dogs with high microfilariae counts. This treatment is best done at the veterinarian’s office under close observation for any adverse reaction.

## The damage done

Although heartworm treatment can be dangerous, so are the heartworms themselves. Adult heartworms are large, growing up to 12 inches in length and living as long as five years. They can plug up the pulmonary arteries, and when the infestation becomes severe, they will start to back up into the heart and eventually fill it. They can cause blood clots, and force the heart to work abnormally hard to pump blood through the clogged arteries. In addition, heartworms cause an extreme inflammatory response in the arteries that can affect other parts of the body, especially the kidneys and liver.

Treatment for heartworm infection is one area where conventional veterinary medicine offers valuable options. Whether you elect to do the fast-kill method using Immiticide, or the slow-kill method using monthly Heartgard, either is preferable to leaving the dog untreated, or using unproven, alternative methods that may have no effect or even be harmful.

This is also a situation where steroids and antibiotics can be lifesavers, when used judiciously during treatment.

The decision of how to treat a heartworm-infected dog is not an easy one, and is best made after consulting with your veterinarian regarding the safest method to use for your dog. 🐾

*Mary Straus does research on canine health and nutrition topics as an avocation. She is the owner of the DogAware.com Web site. She lives in the San Francisco Bay Area with her dog Piglet.*

# Living in Fear

*How to help a shy dog gain confidence – and reduce his risk of biting!*

BY MARDI RICHMOND

**M**ickey is a dog who hides under the bed every time someone enters his house. Chula barks and slinks behind her person if a child approaches. When Josie is approached by men, she involuntarily urinates.

What do these dogs have in common? They are afraid of certain people: strangers, children, and men.

Dogs who are afraid of people are often described as shy, nervous, or cautious. Shy or fearful behavior is easy to recognize in dogs who move away, hide, or tremble when a stranger approaches.

But fear can show itself in a variety of other behaviors, too. Responses to fear include one or all of what trainers call the 4 Fs: Freeze, fight, flight, and fool around. Behaviors that may indicate uncertainty or fear include jumping up or seeking attention, urinating, panting, drooling, excessive shedding, and refusing to make eye contact. Growling, barking, and other aggressive actions can also be triggered by fear.

## Why shy?

Shy dogs come in every size, shape, breed, or mix. Why are some dogs shy or afraid of people?

Popular sentiment holds that dogs who exhibit fear toward people must have suffered abuse or something very scary must

have happened to them. While this may be true in some instances, the combination of genetic predisposition and a lack of social experiences in early puppyhood probably play a much larger role.

Most of us who have lived with shy dogs never know the exact root cause. Fortunately, you don't have to know *why* a dog is afraid to help him or her overcome those fears.

## Scary people everywhere

The first step to helping a dog overcome shyness is to identify exactly who your dog is shy around. Sometimes it seems as if a dog who is shy or afraid is *randomly* afraid. But thinking through and identifying exactly who he is afraid of and in what circumstances can be tremendously useful. It may be helpful to make a list of all of the people that your dog is afraid of. The list will be different for every shy dog.

For one dog I know, the list would include all strangers outside of the home. For another dog, it is only children younger than five. For yet another, it is only short, round women. The more specific you can be about what scares your dog, the better.

Once you know who or what scares your dog, you can take steps to minimize his fear response until he can become more comfortable. Environmental management is your best friend in the early stages of helping a shy dog.

## Putting management to work

Management, simply put, is avoiding the problem or thing that triggers the problem (scary people, in this case) by controlling the dog's surroundings. Management alone won't solve fears, but it can help prevent your dog's fear response – such as cowering, submissive urination, barking, or growling – until he can become more com-

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### WHAT YOU CAN DO . . .

- **Until you begin training your dog to be more confident with strangers, protect her from becoming more frightened than she already is by managing her interactions with people. Keep them positive or keep them away!**
- **Make a list of all the people, or types of people, who your dog is shy with. This will help you organize a desensitization and counter-conditioning program.**

fortable around those people who scare him.

Management can help lower the stress for you and your dog, and help create an atmosphere favorable for training and behavior modification. In some cases, management is essential for safety. (Note: If your dog has bitten anyone – even in fear – consult with a behavior specialist such as a certified applied animal behaviorist, a board-certified veterinary behaviorist, or a certified dog behavior consultant.)

Each dog will require slightly different management strategies depending on who she is afraid of. For example, if you have a dog who is afraid of strangers, you might employ these management strategies:

- Avoid crowded areas where your dog may be overwhelmed by strangers.
- Use a leash, crate, or baby gate to prevent your dog from interacting with strangers in your home.

Think about ways you can protect your dog if you are caught off guard, too:



**Pay attention when your dog suddenly seeks out a quiet, "safe" place and hides when people arrive at your home. He doesn't feel comfortable!**

■ If a stranger approaches and asks to pet your dog, you can say, “No, I’m sorry, but my dog is uncomfortable with people she doesn’t know.”

■ Put yourself between the person and your dog.

■ Create distance by crossing the street or going a different direction.

Once you have management in place and your dog’s overall stress levels go down, get ready to train, desensitize, and counter-condition!

## Train for confidence

Basic training is fun and builds your dog’s confidence. Teaching a dog a few simple behaviors such as sit, down, and stay can lay a good foundation for your dog to look to you for direction when he or she is uncertain. In addition, advanced level training such as rally obedience, musical freestyle, or agility can really boost a shy dog’s overall confidence.

While all positive training will help settle a fearful dog, these three specific training exercises can really pump up a scared dog’s confidence:

■ **Ask politely for everything.** Have your dog sit or down before you pet him, give treats, feed, play ball, open doors, etc. This builds structure, which appears to be stress-relieving for dogs, and it teaches your dog to look to you for guidance and for the good things in life.

■ **Rewards happen.** Reward all positive behaviors around people. For example, if you are out in public and your dog sits in the presence of strangers, “mark” the behavior with a click! of a clicker or a word such as “Yes!” and give him a reward. If your dog politely approaches a friendly child, mark the behavior (click! or Yes!) and give your dog a reward. Give your dog rewards for these behaviors even if you did not ask for them! If you reward offered, appropriate behaviors, your dog may start to use them as a coping mechanism, which may help him reduce his own stress level.

■ **Train a default behavior.** A default behavior (a behavior your dog offers when he doesn’t know

what else to do) can be a great tool for an anxious dog. An excellent default behavior for fearful dogs is “Watch me,” meaning, “Look at my face and eyes.” This helps your shy dog orient toward you, as well as helps him disengage from people who are frightening to him.

In addition, you can transform the presence of “scary” people into the cue or command for the behavior. Once a dog knows the “watch me” behavior well, begin practicing around strangers or other people who frighten your dog. Work at enough of a distance that your dog is not worried about the people being too close (see desensitizing section, below).

Every time a scary person appears, ask for the behavior and reward your dog generously. When the dog sees the scary person and does the behavior in *anticipation* of your asking, jackpot by rapid-fire feeding your dog 10 or more wonderful treats while you give him tons of verbal praise.

## Shifting emotions

While training specific behaviors can help build confidence and teach your dog how to behave appropriately around the people who may frighten him, desensitization and counter-conditioning can be key to helping a shy dog overcome those fears.

If you have ever dealt with a fear – say, a fear of heights or a fear of spiders – you know that you cannot reason that fear away. You can’t just say, “Well, it is silly to be afraid of spiders, so I won’t be scared anymore.” You probably also know that any exposure to spiders may make your palms sweat and your heart pump faster. You absolutely cannot control your body’s reaction. When a dog is afraid, he likely experiences something similar – an emotional and physical reaction.



**You’re too close! A shy dog stiffens in fear and averts his eyes from a stranger. At this point, he needs more distance between himself and strangers.**

Desensitization and counter-conditioning are great ways to help a dog overcome the frightened emotional and physical response to people.

Desensitization is exposure to a fear-evoking stimulus (strangers, for example) at a sub-threshold level (far enough away that the dog notices them, but is not upset). Counter-conditioning is presenting a pleasant stimulus (such as roast beef) in the presence of a scary stimulus (such as a stranger). The goal is to use the pleasant stimulus to change the dog’s emotional and physiological response to the stranger from fearful to happy and relaxed.

## Into action

Here’s how desensitization and counter-conditioning might look for a dog who is afraid of strangers:

■ Identify what scares your dog – the more specific the better!

■ Pick something special to use for a conditioning treat. This is the time to use the best and most wonderful thing your dog can imagine! For many dogs, meat is the best choice: roast beef, hot dogs, chicken breast. For some dogs, a high-value play object or game can be a great option. (I know a dog who quickly got over his fear of children when the neighborhood kids began playing ball with him.) Make sure that your dog is motivated; if you are using food for the reward, the dog needs to be hungry!

■ Figure out the dog’s threshold. Consider how close the person is, how many people are present, and what they are doing. Let’s say that the dog is comfortable with one or two people at a distance of 30 feet.

■ Ask your designated stranger to come into the environment at 30 feet away. Each time the person appears – and your dog notices – start feeding the special treats in a rapid-fire fashion. Spill the food out as fast as your dog can gobble it up.

■ When the person leaves the environment, stop feeding the special treats.

■ Repeat this exercise until your dog is thrilled – and looking to you for the special treats – each time the stranger appears.

■ When your dog is comfortable with the stranger appearing at 30 feet, have him come a little closer, say 28 feet away.



■ Repeat this (over several sessions on different days) with the person very gradually moving closer, for as long as it takes for your dog to be comfortable. For dogs with mild fears, it may only take a few sessions before a stranger can walk up and your dog is happy to see them. For dogs with more severe fears, it may take months and lots of repetitions with different people.

Be patient! Effective desensitization and counter-conditioning work is about as exciting as watching paint dry (unless you are a dog trainer and get excited about these things!) Remember that the goal is to work sub-threshold. It is slow and tedious, but the payoff is worth the effort.

## Opportunity knocks

In an ideal world, counter-conditioning would always happen in conjunction with desensitization (i.e., exposing the dog to the scary people at a sub-threshold level, when he is relaxed and comfortable). In the real world, however, it may not be possible to keep your dog from seeing strangers or other people who scare him while you are working with him to overcome fears. That's okay. Keep up the counter-conditioning (feeding the treats) every time you see a scary person, even if the scary person is too close and your dog becomes worried.

In fact, for dogs with milder shy or fearful behaviors, you may be able to simply incorporate your counter-conditioning into your daily life. When you take a walk and see a stranger, start feeding treats. When a friendly stranger comes to your home, feed your dog treats in the presence of that per-



**Carefully engineer any opportunities for your dog to gain positive experiences with strangers; exploit his love of treats!**

son. If your dog is comfortable enough, he or she can even be fed treats by the "scary" person.

If you are asking others to help your shy dog by feeding treats, help keep it safe by offering your helper specific instructions on what to do.

- Ask your helper to wait for the dog to approach; not to approach the dog.
- If possible, have your helper stand or sit to the side of the dog. Ask him or her not to lean over the dog or make eye contact.
- Have your helper hold out a treat on a flat palm and let the dog come and take it from his or her hand. If the dog is too scared to approach, the helper can gently toss treats onto the ground.

■ Caution! A fearful dog may temporarily overcome his fears in the tempting presence of a high value treat, then bite the scary person when the treat is no longer there. Don't have strangers/helpers feed treats until you are *sure* your dog has been desensitized adequately – that he no longer appears fearful when approaching or being approached by strangers.

Praise your dog when he or she shows confidence and comfortably interacts with the person.

## Your dog sets the pace

One of the most important things you can do for your shy dog is to respect his fears and let him set the pace for getting used to new or scary people. Protect him from making behavior mistakes by providing good management. Teach him basic behaviors so that he or she will know what to do in new situations. Lavish him with large doses of great things in the presence of scary people to help him overcome his fears.

I've seen shy dogs with mild fears become more confident in a few short weeks. But I've also seen dogs take up to two years before they were comfortable. Whatever amount of time it takes, the time and investment will be worth it – both for you and especially for your dog! Helping a shy dog build confidence and overcome fears is not only one of the greatest gifts you can give your dog, it is a very rewarding experience for the human side of the team, too! 🐾

*Mardi Richmond, MA, CPDT, is a writer and trainer living in Santa Cruz, California, with her partner and two wonderful dogs.*

## Will Medications Help My Scared Dog?

We live in a Prozac-happy time. Drug interventions to help people and dogs deal with behavior issues are common.

In some cases, especially with dogs who have pronounced fears, medications such as fluoxetine (Prozac) can have very positive and dramatic results. However, medication is not a magic bullet; it generally will not solve behavior problems without also employing behavior modification. And, medications should never be considered lightly; they can have serious side effects.

If you choose to consult with a veterinarian about medication, find one who is well-versed in the nuances of psychopharmacology. The various drug interventions can have subtle and dramatic differences, so you want to consult with someone who understands them well. Ideally, consult with a board-certified veterinary specialist in behavior.

Questions to ask a veterinary behavior specialist when considering medication:

- Should we consider medication? Why or why not?
- What medication is best for my dog's particular behavior issue? Why is it the best choice?
- What are the possible physical side effects? What are the possible behavioral side effects? What should we know about using this medication safely?
- How long will it take to begin working? How will we know if it is working? How long until we see full effects?
- What behavior modification protocol should be followed in conjunction with the medication?

Look for an article on behavior-modifying drugs in a future issue of WDJ.

# Hospice How-To

*When “putting him to sleep” is not the end you choose for your dog.*

BY DENISE FLAIM

“Life is pleasant. Death is peaceful,” mused author Isaac Asimov. “It’s the transition that’s troublesome.”

Our culture’s ambivalence about death is no secret and no surprise. Leaving this mortal coil can be messy and exhausting, both physically and emotionally. So with our companion animals, we oftentimes beat death to the punch, scheduling it on our own terms by taking that teary-eyed ride to the vet’s office and saying a final goodbye on a tiled floor or steel table.

Susan Marino of Fort Salonga, New York, has devoted her life to helping companion animals go gently – and naturally – into that good night. A former intensive-care pediatrics nurse and a licensed vet tech, the 54-year-old is the founder of Angel’s Gate, the country’s first and only residential hospice for animals. More than 100 dying and disabled animals call Marino’s suburban Long Island ranch house home, from Rottweilers to Rat Terriers, calicos to cockatoos. And all but a handful have died there with-



**Often people choose a veterinary-assisted death for their aged animals due to the practical difficulties of caring for them – incontinence or vomiting, frequent medication schedules, etc. There are solutions available to many of these problems, however.**

out euthanasia, in a home rather than a hospital setting.

“People think they may want to do hospice, but it’s not something that most people know anything about,” says Marino, who, with this writer, is the author of *Getting Lucky: How One Special Dog Found Love and a Second Chance at Angel’s Gate* (Stewart, Tabori & Chang, 2005). The same often applies to veterinary professionals: “Vets learned in school that when animals get sick with no hope of getting better, you don’t want them to suffer, so you euthanize them,” she says. “Many of them have never seen an animal die a natural death.”

Recognizing this emotional dissonance with the animals many of us love as family members, the American Veterinary Medical Association released its *Guidelines for Veterinary Hospice Care* in 2001. Less than a page and a half long, the 11-point document underscores that the hospice experience helps “the respectful closure of each unique human-animal bond” and

stresses that “patients should be kept as free from pain as possible and in a sanitary state,” but does not offer many specifics.

And that is precisely the problem. Almost every day, Marino says, she fields a desperate phone call from someone who wants a terminally ill animal to die at home, but cannot find anyone to explain how.

## Support at a difficult time

Jeffrey Krauss, 48, of Manhattan, is a case in point. In 2004, his 17-year-old cat, Babe, was diagnosed with kidney failure. When he told the vet he wanted to take her home to die, “I was scolded for being cruel.”

Krauss found the Angel’s Gate Web site and contacted Marino, who explained how to administer subcutaneous injections to keep Babe hydrated and comfortable. “She died a few days after we brought her home, which is what I was told would happen,” Krauss says. “But she didn’t die alone. I grieved, but was very comfortable with that decision.”

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### WHAT YOU CAN DO . . .

- **Discuss your dog’s medical and nursing needs with your vet before you commit to providing hospice care, to make sure you are really up to the job – and that your vet will provide support and advice.**
- **Make a “hospice ward” in your home where your dog is comfortable and easily monitored, but where “accidents” won’t cause more than a minor inconvenience.**

Last summer, when Krauss's 8½-year-old black Lab, Mango, was diagnosed with kidney disease, he called Marino again. Mango needed to be hydrated with fluids. As problems arose – why was Mango shaking so much? – Marino gave suggestions: Mango can't regulate her body temperature well, so make sure the IV fluid is warmed, and place heated towels around her.

Mango lived for five months after her diagnosis. She had bad days and good days, including "two miraculous ones that were real rare gifts," Krauss remembers.

## Self-analysis

It's memories like those that are the whole point of hospice, Marino says. "Doing hospice allows me to intentionally spend good, quality time with the animals I care about, to say goodbye in a gentle, loving way," she says. "I get to write the final chapter in that animal's life."

But just as all writers have different tones, choose different words, and focus on different angles, so too will all those final stories vary. Some caretakers will see their animal to the end; others will choose a point beyond which they will not venture. Still others may decide to end the chapter before it even begins.

"There is no right or wrong. Hospice is a decision that needs to come from your heart," says Marino. "It's a matter of choices, and it's important to remember that we have them."

To that end, here are some questions to consider in making the commitment to provide hospice care for a companion animal:

### ■ Will my vet support my decision?

Though it seems counterintuitive, this is a question you need to ask while your dog is still healthy.

If you wait until a terminal diagnosis before broaching it, "the conversation is going to be clouded and very difficult," Marino says. "Like anything else, the outcome will be much better if you're prepared ahead of time."

Ask some questions about the vet's policy on euthanasia. Is she willing to work with someone who wants to care for a dying dog at home? Are there any circumstances under which she would not be supportive of doing hospice?

Once you have the conversation, keep reinforcing it, suggests Marino. "Every time you have your dog in for a wellness exam, reiterate it to make sure he hasn't changed



**Susan Marino in her heated hydrotherapy pool with an Angel's Gate resident. Having developed an interest in physical rehabilitation, Marino cares for increasing numbers of disabled animals who are *not* terminally ill. Photo courtesy of Angel's Gate**

his mind. It's very easy for a vet to say yes when there's nothing going on. But that way, he also gets to know you and gets to know what your heart is all about."

As in any partnership, trust between you and your veterinarian is essential. Consider pain relief. Veterinarians can prescribe controlled substances such as Butrophenol and Valium to keep a dog comfortable, but many are reluctant to send those drugs home with a dog because of concern that the drugs may be misused. "Your vet has to know when he or she hands over that narcotic that you're going to use it properly," Marino says.

If you are truly committed to providing hospice, then you need your veterinarian to embody the literal meaning of the word "doctor," which comes from the Latin verb *docere*, meaning "to teach."

"A doctor's responsibility is to educate you so you can make informed choices, not to make choices for you," Marino says. "A lot of times, people don't want that responsibility. They want their vet to say, 'It's time to give up.'"

"You need to decide what person you are," she continues. "Do you want to be in charge, do you want the vet to be in charge, or do you want a mix of what's in the middle?" Once you are clear on your own comfort level, then you can find the veterinarian who will best help you reach it.

### ■ What illness am I dealing with, and do I understand the course it will take?

"You need to really research what's going on with the animal, and understand what the disease process is," says Marino. "You need to ask your vet what the end is going to be like. Are there going to be seizures? Will the animal have difficulty breathing?"

With some disorders, such as kidney disease, dogs can have relatively good quality of life until the very end. "If you're consistent with giving fluids, that hydration is a sort of mini-dialysis for the kidneys," she explains. Often, as the end nears, dogs follow a similar trajectory: They refuse food for a few days, then around the fourth day refuse water, and pass soon after.

"On that third day, often they perk up and eat," Marino says of the pattern she's observed. "They seem brighter, and you might think things are going to get better. But soon after, they're gone."

Other diseases are more complicated. With degenerative myelopathy, an immune-mediated paralysis that begins in the rear and moves progressively forward, a dog can live for a year or longer, depending on diet and stress levels. But ultimately, as the disease advances, the diaphragm will be affected, making breathing difficult and opening the door to pneumonia and other respiratory problems.

Because it is so hard on an animal, compromised breathing is often a sign that



hospice should be ended and euthanasia considered. Denise Juliano of Lake Grove, New York, eventually euthanized her Collie, Winston, when his breathing became labored from lung cancer. But six months earlier, when her veterinarian gave her the bad news and suggested euthanasia, she looked at her still-active dog and decided to keep him comfortable for as long as she could.

"I don't regret those extra months with Winston," Juliano adds. "More than anything it was a lot of messes; he would throw up a lot, and he became incontinent on and off." But that was minor compared to the joy of having Winston in her life for a few more months.

### ■ Do I have the time?

"Dying is an evolution, a process," Marino says. "In the beginning, the dog may not mind being left alone, and it's not going to be a 24-hour job. There might be some back and forth to the vet, but that can be done on evenings and weekends."

Eventually, though, the time will come when your dog will need you in attendance pretty much every day. At that point, you may need to take a leave of absence from your job, or hire someone to come to your home several times a day to walk or medicate the dog.

Flexibility is absolutely essential. "If you're a person who likes structure and rigidity, you may have a hard time with hospice care," Marino says, adding that your social life will be essentially nonex-

istent. "Animals can go into remission, they can have really good days and really bad days, and you have to be resigned to that."

During the last three months of Mango's life, Krauss carried the 60-pound dog down from his third-floor brownstone triplex every two hours because she refused to soil in the house. "That wasn't easy, and I didn't get much sleep, but I did it," he says. "I like to think that if I were the dog and she were the human, she would do the same for me."

Krauss points out that it's not just the sheer time devoted to hospice care that's demanding, but the quality of the time itself. "You have to be present as the animal you love deteriorates, knowing she will not get better," he says. "You cannot be emotionally absent."

### ■ Do I have the funds?

"This is not a cheap investment," Marino says. While it might sound crass, "you need to ask yourself, 'How much am I willing to invest?' I know people who are willing to take out a second mortgage to give their dog another six months of life. But if you are a working single mom with three kids and you're giving up your grocery money so your dog can be treated, you have to

check the wisdom and practicality of that."

Cancer treatments such as chemotherapy and radiation might prolong a dog's life, but they cost thousands of dollars. Those too squeamish to perform simple procedures such as subcutaneous injections can take their dog to the vet daily, or hire a licensed vet tech to come over and give them – all at a steep price.

Certainly, the more work a caretaker is willing to do herself, the less the financial impact. But the expenses will mount up: time off from work, the cost of dog sitters when you cannot be home, and supplies "more than likely will run in the thousands," Marino warns.

### ■ Can the humans in my life cope?

For all its moments of deep connection and quiet joy, hospice is very stressful, putting a strain on your energy, finances, time – and relationships. If there is any friction in your family situation, hospice will inevitably bring it to the surface.

"It's so important to have a family in agreement; I have seen an animal dying in a home cause absolute turmoil," Marino says.

"Every family member has to lay his or her cards on the table and present what part they want to play. Some want to be more involved than others, but no one should be



**An Angel's Gate volunteer comforts Tracy, a dog with mammary cancer.**  
Photo courtesy of Angel's Gate

## Are Animal Hospice Facilities Available?

Angel's Gate, the animal hospice described in Susan Marino and Denise Flaim's book, *Getting Lucky: How One Special Dog Found Love and a Second Chance at Angel's Gate*, is a rarity. As described in the book, Angel's Gate founder Susan Marino began opening her Long Island home to animals with terminal conditions in 1992. The dogs, cats, birds, horses, and wild animals that Marino and a host of volunteers care for were all either relinquished by their owners or by shelters for medical reasons.

Providing hospice care for any species (much less a number of species) is a specialized and highly labor- and cost-intensive proposition, and so it follows that there isn't a list of facilities that provide this care available to dog owners. And while animals find their way to Angel's Gate in a variety of ways, the nonprofit facility does not provide its services on demand or for a fee. Based on the countless calls and queries Marino gets, she knows there is a great demand for hospice care, and regrets that most of the time she has to turn people away because she simply does not have the room to accept their animals; she often runs at

the full capacity of her facility.

But it should also be understood that facility-based hospice care is not ideal under any circumstances. In the best of possible worlds, aged and/or debilitated animals should be with their beloved owners to the end. Home hospice care is ideal.

The practical advice shared by Marino in the article above, or via phone (631-269-7641) or e-mail ([susan@angelsgate.com](mailto:susan@angelsgate.com)) will prove valuable to individuals considering home hospice care for their animals. Veterinarians who are interested in supporting their clients in these efforts can find resources tailored to their needs Nikki Hospice Foundation for Pets (NHFP) Web site: [pethospice.org](http://pethospice.org).

NHFP acts as an advocate for veterinary hospice care by conducting educational programs geared toward the veterinary community. At present, the NHFP is also urging vet schools with teaching hospitals or larger vet clinics offering 24-hour care to consider setting up a hospice unit where pet guardians can remain with their animals in a quiet and comforting setting. – N.K.

criticized for something they can't give, or if someone else gives more."

Such honesty forestalls any resentment on the part of a more involved caretaker who might be tempted to accuse another of not doing enough. Speaking of that last word, caretakers need to be very explicit about defining it. "The family has to be in agreement on when enough is enough. For some people, the dog becoming incontinent would be enough. For others, it's when the dog can't get up," says Marino. "'Enough is enough' varies according to what people are willing to tolerate."

But for many, the strain and exhaustion are a small footnote to the experience itself. "We went through the dying process that you would go through if a family member was dying at home," concludes Krauss.

"There are tremendous gifts and learning that come from that: That you can care for a dying animal that you love even though it's hard. That you can release them to let them go on. And that you can show them that even in their sickness, they are lovable."

## The down and often dirty

"Life is messy," says Marino. "It's not neat and clean." The same goes for hospice care. Incontinence and vomiting, unpredictable ups and downs in an animal's condition – all can seem like insurmountable obstacles unless a caretaker is perfectly prepared for them. Here are some essentials you'll want to have at the ready:

■ **Diapers.** The baby (not the adult) kind are best. Shop around for a brand that is ultra-absorbent, and modify each diaper with a simple snip to allow for a tail opening.

Diapers also help protect against urine scalds by drawing the moisture away from the skin. "Make sure the diaper is as dry as possible," says Marino. As with a newborn baby, she uses a diaper-rash product such as Balmex or Desitin to create a barrier so the skin doesn't get raw.

With long-coated dogs such as Collies and Huskies, Marino sometimes shaves the whole perineal area, especially in summer. "Because the coat is so thick, the dog can get maggots and you don't even know it,"

she says, noting that the fly larvae can hatch within 24 hours of being laid, and will immediately begin eating away at any necrotic tissue.

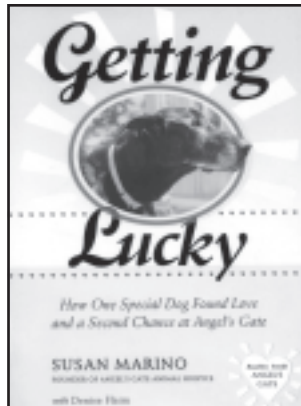
■ **Bedding.** For incontinent or immobile dogs, Marino recommends doggie cots made out of PVC pipe and mesh fabric. Elevated off the ground, the beds are comfortable for the dog and easy to clean for the caretaker. She places a hospital-type blue "chuck pad" under the bed, or a tray of cat litter to make the area easy to clean.

Speaking of cleaning, consider devoting an area of the house for providing hospice. "It should be a place where if the animal is incontinent or vomits, it's not on your \$10,000 Persian rug," Marino says. "It should be a place where the animal is comfortable, and so are you."

■ **Supplies.** Among the items that Marino recommends obtaining from your vet are **fluids and disposable needles** to do subcutaneous injections, which will be required in nearly every dog's final days. Pedialyte, an oral electrolyte solution for children, is also good to have in the cupboard to combat dehydration.

Diarrhea is a common problem with terminally ill animals, and Marino always keeps a **tincture of slippery elm** on hand to deal with gastrointestinal upsets. For vomiting, she often turns to the **homeopathic remedy Nux vomica**.

Instead of a heating pad – a big no-no – Marino uses a **warming disc** that can be heated in a microwave. You can determine whether the disc is too warm, refrain from putting it near the dog until it's at a safe temperature, and then feel confident that it will slowly cool (rather than heating up to a temperature that can burn, like heating pads are wont to do). Warming discs stay warm for 10 hours, and are especially good for animals with kidney disease.



**Getting Lucky** tells the stories of 18 Angel's Gate dogs and other animals.



**Lucky and Ann, his favorite and devoted Angel's Gate volunteer.**  
Photo courtesy of Angel's Gate

Another must-have is a **rectal thermometer**. "Learn what temperature is normal for your dog," Marino advises. "Typically, it's 101 degrees, but it can range from 100 to 102 for some dogs." And while a **muzzle** might sound like an odd item to keep handy, she notes that some dogs can nip during unpleasant procedures such as a change of wound dressing, or when they are frightened or out of sorts.

■ As for **nutritional supplements**, Marino frequently gives her hospice dogs **Seacure**, a biologically hydrolyzed white-fish supplement that is easy for the digestive system to assimilate (and whose fishy odor tempts many dogs with delicate appetites into eating). She also uses **colostrum** to support the immune system and help ward off secondary infections, and **Pet Tonic**, an iron-rich vitamin and mineral supplement, to help boost oxygen-carrying red blood cells.

■ **Faith.** While it sounds basic, caretakers need to believe in their ability to do their best for their animal. Marino remembers the day that Krauss's partner Deb called, distraught. On one of the dog's very good days, Deb had taken her hiking, but the next day, she was noticeably worse.

"She was feeling guilty, like 'Maybe it was something I did,'" Marino recalls. "But the key in all this is to live life and savor it. It's very important to focus on the days that we go hiking rather than the days when things don't go so well. Those are the days you want to remember." ❀

*Denise Flaim is a staff writer and companion-animal columnist at Newsday, the daily newspaper on Long Island. She is also the author of The Holistic Dog Book: Canine Care for the 21st Century and Getting Lucky: How One Special Dog Found Love and a Second Chance at Angel's Gate (Stewart, Tabori & Chang, \$19). Denise shares her home with her husband, toddler triplets, and two naturally reared Rhodesian Ridgebacks.*

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The Association of Pet Dog Trainers (APDT) has references to member trainers in your area. Write to 150 Executive Center Drive, Box 35, Greenville, SC 29615, or call (800) 738-3647. The APDT database of member trainers can be seen at [apdt.com](http://apdt.com)

### BOOKS

WDJ Training Editor Pat Miller is author of two books: *The Power of Positive Dog Training* and the brand-new *Positive Perspectives: Love Your Dog, Train Your Dog*. Both books are available from DogWise, (800) 776-2665 or [dogwise.com](http://dogwise.com)

*Ruffing It: A Complete Guide to Camping With Dogs* by Mardi Richmond (Alpine Pubs, 1998), is also available from DogWise, (800) 776-2665 or [dogwise.com](http://dogwise.com)

### HOLISTIC VETERINARIANS

American Holistic Veterinary Medical Association (AHVMA), 2214 Old Emmorton Road, Bel Air, MD 21015. (410) 569-0795. Send a self-addressed, stamped envelope for a list of holistic veterinarians in your area, or search [ahvma.org](http://ahvma.org)

### APPEASEMENT BEHAVIORS

*Language of Dogs*, by Sarah Kalnajs' Blue Dog Training & Behavior, LLC. 2006, two-disk DVD set, \$40. [bluedogtraining.com](http://bluedogtraining.com); (608) 213-5304

*Canine Behavior: Observing and Interpreting Canine Body Postures*, by Suzanne Hetts, PhD, CAAB, CPDT; Daniel Q. Estep, PhD, CAAB; and David Grant, DVM. 2004; available in VHS or DVD format, \$50. Animal Care Training, Inc., [animalbehaviorassociates.com](http://animalbehaviorassociates.com); (303) 932-9095



*Canine Body Language: A Photographic Guide*, by Brenda Aloff. Hundreds of photos and explanations of the behavior illustrated in them. 2006 softcover, 157 pages, \$40. [dogwise.com](http://dogwise.com); (800) 776-2665

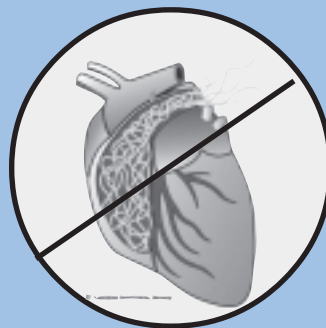
### TREATMENT FOR HEARTWORM

Heartworm treatment aftercare  
[houstonsheltiesanctuary.com/heartworm\\_treatment\\_aftercare.htm](http://houstonsheltiesanctuary.com/heartworm_treatment_aftercare.htm)

Heartworm-positive dog requires tailored treatment  
[dvmnewsmagazine.com/dvm/article/articleDetail.jsp?id=49076](http://dvmnewsmagazine.com/dvm/article/articleDetail.jsp?id=49076)

AHS Treatment Guidelines  
[heartwormsociety.org](http://heartwormsociety.org) (see Veterinary Information)

Emerging Issues in Heartworm Disease  
[dvm.adv100.com/dvm/article/articleDetail.jsp?id=32691](http://dvm.adv100.com/dvm/article/articleDetail.jsp?id=32691)



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These behaviors mean more than just "Calm down, please." They are a sign that your dog is stressed out!

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An herbal formula that really works to relieve joint pain and stiffness.

### Thanks to Juliette

An interview with Juliette de Baracli Levy, author of "The Complete Herbal Handbook for Dogs and Cats," and the earliest proponent of a natural diet for dogs.

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