

Your complete guide to natural dog care and training

Whole Dog Journal™



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Panacea or Poison?

The truth usually lies in the middle, but you know your dog best; use your judgment.

From the first issue, one of WDJ's missions has been to bring you "in-depth information about effective holistic healthcare methods." However, the word "holistic" is subjective, and it's frequently used to mean very different things.

Many people use the phrase "holistic healthcare" when they, in fact, mean natural, alternative, or complementary healthcare. However, we use the phrase in its original sense – to mean "relating to or concerned with wholes or with complete systems." We look for therapies and practitioners that offer the most benefit and do the least harm, whether it's a conventional prescription medication or an organic essential oil, a veterinarian who specializes in oncology or one with advanced training in chiropractic. We don't eschew vaccines – but we do advise using the least number needed to protect your dog. We don't promote the use of unproven alternatives to heartworm preventatives – but we do offer explicit advice on how to minimize their use without leaving dogs vulnerable to heartworm infection.

And, to use a recent example, we don't tell owners to refrain from *ever* using toxins on their dogs, but we do give them information about how to use toxins, such as the minimal use of topical pesticides and oral flea-killing medications, when less-toxic flea control has failed and the dog is suffering – and when the substance is not contraindicated.

Judging from the number of critical comments regarding last month's article on prescription flea-killing medications, you might think we told our readers that the medications were terrific and should be given to every dog, every month, for life – no worries! Um, *no*. We think those medications should be reserved for last-resort use. But we're also aware of cases where they can literally save lives – for example, with dogs who are severely allergic to fleas and who live in areas where fleas are a year-round pestilence. And if an owner is considering their use, she should know, as just one example, which products are likely to aggravate her dog's epilepsy, and which products don't pose that risk.

There are publications that denounce the use of most conventional veterinary medical practices and therapies, vaccines, heartworm preventatives, and pesticides included. There are others that impugn every sort of medicine that's *not* conventional; they take an equally dim view of acupuncture, chiropractic, traditional herbal medicine, massage, and more. Please don't confuse us with any of them. We're committed to giving you solid information about *all* of the most beneficial options available to you.



NK



Crate Problems and Great Solutions

How (and why) to keep your dog's crate experience positive.



Dogs who have never been given a reason to resent crating often seek out their crates on their own. This dog prefers his crate to all other sleeping locations, indoor or outdoor. The crate door has been permanently removed, and an insulating cover added to keep the dog cozy in cool temperatures.

I first used a crate as a canine management tool in the early 1980s. I was a little skeptical of the concept (“Put my dog in a box? What?”), but within two days was completely convinced that this newly touted training tool had merit for both housetraining puppies and as a “safe space” for older dogs.

Decades have passed since then, and I continue to believe that crates are a valuable tool for successful dog keeping. However, I have also seen some crate abuses over the years that prompt me to add some important caveats to my usual encouragement of their use.

EXCESSIVE CONFINEMENT

Overuse is probably the most common abuse of crates. I cringe when I hear of dogs who are routinely left crated 10 or more hours a day while their humans are away at work. And what if you get stuck in a major traffic backup, or your boss decides to call a last-minute mandatory staff meeting?

I can't think of a better way to wreck your dog's housetraining than to crate him for excessive periods with no option but to soil his own den – not to mention the potential for creating severe anxiety by forcing him to eliminate in his bed against all his training and instincts. While your dog may be physically capable of

going for 10-plus hours without soiling his crate, he shouldn't have to. There is some evidence that over-crating may lead to kidney damage for dogs who routinely try to “hold it” longer than they should.

Some of us (me included) sometimes crate one of their dogs to prevent intra-family aggression. Using a baby gate to separate the dogs, instead, can keep peace in the family and reduce unnecessary confinement.

■ **Solutions.** Examine your crating practices. Do you have options other than crating? If your dog can't have house freedom, will a baby gate or closed door serve the same management function while giving your dog more room to move and a choice to use his crate – or not? (He still shouldn't be shut in his room for 10-plus hours a day! If he has to be regularly left home alone for long periods, find a reliable force-free dog walker to give him a daily break.)

If you're not sure your dog can be trusted uncrated, start a testing protocol, gradually leaving him uncrated for increasing periods.

IMPROPER CRATE INTRODUCTION

Nothing is guaranteed to make your dog dislike his crate faster than being forced into it. If your dog shows resistance to crating, *stop!* Rather than shoving, try tossing high-value treats inside. If he still doesn't go in voluntarily, find an alternative until you can take the time to teach him.

■ **Solutions.** Good breeders teach their pups to love crates, and an increasing number of shelters and rescue groups are making the effort to do the same with the dogs in their care. If not, and you're bringing him home for the first time, try a harness and a seat belt or tether to safely restrain him for the trip. Or bring along a friend or family member who can hold him.

Once home, use counter-conditioning to convince your new canine companion that being near a crate makes wonderful things

happen, and use shaping to operantly condition him to happily and willingly enter his new bedroom.

CRATING AS PUNISHMENT

Yikes! If forcing to crate is the best way to make your dog hate his crate, using the crate as punishment may be the next-best way. A cheerful time-out is okay – just to remove him from a difficult situation, but never an angry “Bad dog! Get in your crate!” Similarly, never punish him in his crate by banging on it or shaking it. And never, ever reach into his crate to drag him out and punish him. I don’t reach into my dogs’ crates for any reason; crates are their safe space and I respect that.

■ **Solutions.** The easy solution here is – just don’t. If you must crate your dog to give him (or you!) a cooling-off period, do it cheerfully, and give him something nice in the crate – yummy treats, a chewy, or a stuffed toy.

UNPROTECTED CRATING

You can accidentally give your dog a negative experience and association with the crate by crating him in a place where he is not protected from the unwanted attentions or proximity of others. If your dog isn’t fond of children and you crate him where children can harass him, he will feel trapped and stressed, and you are likely to make his association with children (as well as with his crate) infinitely more negative.

There can be a similar outcome if he has a tense relationship with another dog in your household and you crate him while the other dog is allowed to be free: Trapped and stressed, his relationship with that dog will likely worsen. If he’s crated in your vehicle and you have to swerve or stop suddenly, the crate bouncing around the back of your SUV is likely to convince him he’d rather not be crated.

■ **Solutions.** Always crate your dog in a location where he is protected from unwanted attentions from humans or other dogs. An exercise pen placed around the crate as an “airlock” may

be adequate, or he may be better off crated in a separate room with a baby gate across or the door closed. Crates in a vehicle should always be secured so they can’t roll around if there is a sudden stop or worse, a collision.

CRATING TIPS

With all that said, you might think my ardor for crates has cooled. Far from it; I still think they are a fantastic dog management tool, when used properly. Here are some additional tips to help your dog get the most benefit from his crating experience:

■ If your dog has had past unpleasant experiences with crating, consider changes. If you were using an airline-style crate, try a wire crate. If he was crated in the living room, try the den. If he gets aroused by outside stimuli, move the crate away from the front door, to an isolated, quiet location in the house.

■ Make sure your dog’s crate is placed in an environmentally comfortable location. You may not realize that the sun hits the crate at some point in the day, causing your dog to overheat, or a draft from a vent that makes him uncomfortably cold. Try putting crates in different locations and see if he shows a preference.

■ Respect your dog’s bedding preferences. He may love a cushy comforter to lie on while crated, or he may prefer the coolness of a bare crate

floor. Figure out what he likes and accommodate his wishes. If possible, try offering two crates with different types of flooring or bedding and see if he chooses one over the other.

■ While you work to shape your dog to voluntarily crate, try putting something wonderfully irresistible inside the crate (near the door at first) and closing the door, so he gets a little frustrated about trying to reach it. Then open the door so he can reach in and grab it. As he gets bolder about grabbing the item, gradually move it farther back so he has to go deeper in the crate to get it.

■ Consider giving your dog more spacious accommodations. When housetraining, we want the crate to be just large enough to stand up, turn around and lie down comfortably, so he can’t soil one end and rest comfortably in the other. After he is well housetrained, there is no need to keep him a small space – he can have a bigger crate if he likes.

SO WHY EVEN CRATE?

Why bother to crate at all, especially once your dog is housetrained and past the puppy chewing stage? There are times when it can be very useful to be able to crate your dog. It is certainly safest to transport your dog in a vehicle if he is properly crated. Also, there comes a time in the lives of many dogs when they need to be on “restricted activity,” whether following surgery, or perhaps for a torn ACL, broken limb, or some other medical mishap.

A dog who is calm, relaxed, and even happy about being crated will endure these trying times far more easily than one who is stressed about his enforced confinement. Be a responsible crate practitioner, and your dog will be much happier for it. 🐾

Author Pat Miller, CBCC-KA, CPDT-KA, is WDJ’s Training Editor. Miller is also the author of many books on positive training. Her newest is Beware of the Dog: Positive Solutions for Aggressive Behavior in Dogs. See page 24 for information on her books, and classes for dog owners and trainers.

What you can do

- Evaluate your crating protocols and make any necessary changes (bedding? location? type of crate?) to ensure you are following best crating practices.
- If necessary, help your dog learn to love his crate in case a time comes when he must be confined, for an extended stay at the vet, for example, or (dog forbid) an evacuation.



A Hard Look at Soft Crates

Looking for a lightweight, portable crate that's easy to set up and break down? We found a few to recommend – and some to avoid.

Crate training offers a variety of benefits. The crate is a useful training tool to help teach housetraining skills, manage over-arousal, and protect against unwanted destruction when owners are unable to supervise an untrained dog of any age. A crate-trained dog always has a familiar retreat to call his own, whether at home, when travelling, or while waiting his turn at a weekly training class or performance event.

Not that long ago, crates were typically limited to bulky plastic or wire enclosures that were cumbersome to move from place to place. Today, dog owners have many choices when it comes to portable containment options, including a growing market of lightweight, foldable “soft crates” that are easy to transport from place to place.

IS A SOFT CRATE RIGHT FOR YOUR DOG?

As a trainer, I feel strongly that soft crates are meant to be used only by dogs who are already reliably crate trained. Confining a puppy or non-crate-trained adult dog using a soft crate is, in my opinion, just asking for trouble. No matter how the soft crate is constructed, canvas and mesh just aren't designed to withstand the expected clawing and biting that often accompanies a puppy or young dog's attempts to exit a crate without direct invitation. Until I have solid knowledge of my dog's ability to crate calmly, I use a sturdy plastic kennel at home, or an exercise pen or collapsible wire crate for travel.

Some well-crate-trained dogs have even been known to free themselves from a soft crate in a moment of circumstantial excitement or frustration. My very first soft crate has a memorable Whippet-head-shaped hole in the mesh door from when its then inhabitant, Zoie,



decided she'd had enough of sitting in the crate while I ran her housemate in a dock jumping competition. My current Golden, Saber, once left his mark of disapproval on the zipper seam of another soft crate when he decided it wasn't right to be left behind when I had to go lead a group training adventure. He likely heard the group outside – comprised of many of his favorite people – and the damaging scratching ensued. I considered both dogs to be reliably crate trained, and both dogs had crated successfully, in soft crates, in similar situations, prior to their escape attempts. But sometimes mistakes happen.

In some cases, mesh damage can be repaired using a screen-mending kit or with some creative sewing. Several manufacturers also sell replacement covers – however, replacement covers often cost almost as much as a new crate.

Soft-sided, portable crates are terrific temporary confinement tools for dogs who are reliably crate-trained. The vast majority of people who travel to canine sports competitions use these lightweight, airy crates to house their dogs between classes.

Like most any dog product, it's important to know your dog. In the wrong hands (er, paws!), a soft crate can be an expensive experiment. But if your dog is truly ready for the experience, soft crates are perfect when you want something easily portable.

THE PERKS OF PORTABILITY

Virtually any soft crate is going to come out on top in terms of portability when compared to a traditional plastic crate, collapsible wire crate, or exercise pen. Visit any competitive dog event or training class and you'll find a sea of soft crates in all shapes, sizes, and styles. By design, soft crates weigh considerably less than plastic or wire crates of a similar size. Generally speaking, they also tend to fold flatter than collapsible wire crates. Each of these factors combine to make them a great choice for dog owners who need to frequently set up and break down their crate.

A soft crate also works well for home-based situational crating. The small footprint when folded makes it easy to tuck the crate away in a closet or under the bed if you only use it occasionally, such as when certain visitors stop by, when restricting a dog's activity as she recovers from an injury, or when traveling.

While a soft crate is highly portable, we recommend against their use as travel crates in the car. Most any crate or pet seatbelt system helps protect against a dog interfering with, and dangerously distracting, the driver, making it a better choice than riding loose. However, the amount of force generated during even a minor collision could potentially catapult a dog through the mesh panels of most (if not all) soft crates.

WHAT MATTERS MOST IN A SOFT CRATE?

When I'm shopping for a soft crate, I look for supreme ease of use, both in terms of how quickly I can set up and break down the crate, and how easy it is to carry to my designated

One of our two-top-rated crates: Elite Field's Three-Door Folding Soft Crate sets up and breaks down quickly and is loaded with features.

crating area at weekly dog classes and events. I also want my dog to fit comfortably in a crate recommended for his size.

I almost always use the soft crate at outdoor events, so good ventilation is important. I want a product that is sturdy enough to support a few assorted training items on top, so I can use it as a temporary table while I train. And, because I know "dogs can be dogs," and even the best crate-trained dog will occasionally manage to damage the crate beyond repair, I don't want to spend a lot of money on a soft crate.

REVIEWING THE CRATES

We chose a total of eight crates for review. Some were selected based on recommendations by fellow dog enthusiasts; some because they are made by manufacturers of well-known wire crates and exercise pens, and some based simply on Google search results and/or an inexpensive price tag.

After carefully analyzing the pros and cons of each crate, we saw a lot of really wonderful features, but, sadly, not one single crate managed to offer all of our favorite features in one product. (Hey, manufacturers, call me!) Still, it was pretty easy to come up with a couple of overall favorites, a least favorite, and some honest feedback about the pros and cons of the remaining crates, which we hope aids in readers' decision making.

OUR FOUR-PAW FAVORITES

We found just two crates that met our criteria for a four-paw rating (the highest rating we confer on any products).

A great soft crate: Elite Field's Three-Door Folding Soft Crate

Elite Field's Three-Door Folding Soft Crate was the standout leader in terms



of available features and overall value. We reviewed the 36-inch version, which measures 36 inches long by 24 inches wide by 28 inches tall. Most notable was the additional headroom, making it more likely the crate's inhabitant can sit comfortably while maintaining a natural head position.

This crate packs a punch with its features. The crate quickly takes shape after unfolding by easily connecting both ends of the lightweight internal steel-tube frame, accessible via a zippered, mesh "sunroof" panel on the top of the crate. Set-up and break down can be done in seconds. After releasing the frame, the crate quickly folds into itself and is held in the folded position with two quick-release buckles.

The crate cover, made of thick canvas and sturdy mesh, can be removed and washed, if needed. The Elite Field soft crate features rounded, reinforced corners and feels sturdy when set up. The 36-inch crate weighs 14 pounds.

We appreciate how this crate has front and side entry doors, along with one full-length mesh window on the opposite long side, and a partial mesh window on the short side. The zippered side entry is helpful when you need to position the crate sideways, which then restricts access to the front door. (I sometimes run into this issue in hotels.)

The sheer amount of mesh means this crate is well ventilated, making it a wise choice for use in warmer climates. While not shown on the manufactur-

er's website, the crate is also available, in specific colors, with "curtains" that can be rolled down to cover the mesh door and windows. This is a nice feature for times when obstructing a dog's view helps reduce over-arousal and related vocalization.

Elite Field has thrown in several value-added features, such as storage pockets on both the top and short end of the crate, and the crate comes with a free mat and carrying case. I'm personally not a fan of encasing my crate in its own bag when not in use, so I was pleased to see the crate itself has multiple built-in handles, making it easy to transport even when out of its case. If anything, Elite Field almost went overboard with carrying options. Not only is there a handle for carrying the crate when folded, every size crate also comes with a cross-tied handle on the top of the crate. I could see using this option if carrying the small-size crate while occupied by a small dog, but definitely not while housing a dog in one of the larger size crates.

Our one notable disappointment with this crate is the inability to secure the zippers in the closed position. As someone who has spent countless weekends at dog events, I know how quickly clever dogs can figure out how to open a zippered door by position-

ing a toenail "just right" on the frame of the zipper pull. Many soft crates come with a small clip just above the zippered door. The clip can be used to "lock" the zipper, thus thwarting a clever dog's attempt to open the zipper with his claw.

**Another strong contender:
Firststrax Noz2Noz Sof-Krate**

A close second to the Elite Field crate is the Firststrax Noz2Noz Sof-Krate. We tested the 42-inch crate, which measures 42 inches long by 28 inches wide by 32 inches tall. This crate is similar to the Elite Field crate, but *without* the bells and whistles of storage pockets, a crate mat, or a carrying case.

Like the Elite Field crate, set-up involves pulling both ends of the internal frame into position, where they fit together and are secured by a closure sleeve. Set up can be done in seconds. The crate cover, made of thick canvas and sturdy mesh, can be removed and washed. Replacement covers are available from the manufacturer. The Noz2Noz Sof-Krate soft crate has reinforced, rounded corners and feels sturdy when set up. The 42-inch crate weighs 19 pounds.

This crate also features front and side-entry, mostly mesh doors and a canvas "sunroof." We were pleased to

find "zipper lock" clips on both the front and side access doors. The remaining long- and short-sides of the crate have mesh windows, allowing for maximum air-flow. The Noz 2 Noz crate folds down similar to the Elite Field crate. The folded crate can be carried by a single handle.

THREE-PAW CRATES

Only one product was close enough to our higher-rated crates to earn our three-paw rating.

**A solid, no-frills, functional choice:
Firststrax Petnation Port-a-Crate
E-Series**

Firststrax also manufactures the Petnation Port-a-Crate E-Series. The lightweight, internal frame works similar to that of the Elite Field and Noz2Noz crate, and the Petnation Port-a-Crate can be set up or taken down in seconds. Of the three similarly designed crates, the Port-a-Crate appeared to fold down the flattest. Its overall shape is slightly different; the top of the crate tapers inward, but not so much as to significantly limit the dog's usable headroom.

We tested the 36-inch crate, which measures 36 inches long by 25 inches wide by 25 inches tall, making it one of the shorter crates (at that length) in our review. Unlike the 36-inch Elite Field crate, my Golden Retriever, who measures about 21 inches at the shoulders, cannot sit with a natural head position in this crate. This doesn't bother me, as I prefer my dogs to lie down and rest when in their away-from-home crates, but it's worth noting, especially if your dog is on the taller side. The 36-inch Port-a-Crate weighs 14.5 pounds.

Aside from the shorter height, the only other potential issue we saw with the Port-a-Crate is the window design. Unlike the Elite Field and Noz2Noz crates, which feature large mesh windows, allowing for significant



The cover of Firststrax's Noz2Noz Sof-Krate can be removed for washing; replacement covers are also available.



We down-rated the Petnation Port-a-Crate, made by Firstrax, because of the reduced ventilation provided by the bone-shaped windows.

shaped windows on the remaining sides. This potentially limits airflow within the crate, an important consideration if used outdoors in hot or humid climates.

On the other hand, less mesh overall might also mean fewer areas for the dog to damage with his claws. Of the three similarly designed crates, we found the Port-a-Crate, available in six sizes, ranging in price from \$32-\$57, to be least expensive. At this price point, we recommend the Port-a-Crate as a nice “starter” soft crate if you aren’t sure your dog is ready to be contained by mere mesh and canvas.

ventilation, the Port-a-Crate is limited to a mesh front-entry door (with an available zipper lock) and small, bone-

TWO-PAW PRODUCTS

The next three crates on our list failed to impress us overall, yet still have some notable features making them worth mentioning, as your priorities might differ from ours.

The most real estate for its size: Go Pet Club Soft Pet Crate

If your your dog needs a little more room to relax, you appreciate a super-lightweight product, and know you can trust your dog in a soft crate, the Go Pet Club Soft Pet Crate might be worth a look.

Unlike our three favorite crates, which feature interior metal frames and a canvas/mesh cover, the Go Pet Club Soft Crate is made from heavy-duty, PVC-backed polyester. The entire crate literally zips together and holds its shape thanks to zippers and flexible

WDJ’S TOP PICKS IN SOFT-SIDED CRATES

WDJ Rating	Product Name Maker, Contact Info	Price	Sizes	Colors	Pros/Cons
	THREE-DOOR FOLDING SOFT CRATE Elite Field, Corning, NY (800) 874-4685; elitefieldpet.com	\$55 - \$86	Four, from 24" to 42" long	Multiple colors available	Pros: Quick set-up, ample headroom, front and side entry, good ventilation, comes with “extras” (crate mat, carrying case), has multiple carrying options. Cons: No zipper locks.
	NOZ2NOZ SOF-KRATE Firstrax (Spectrum Brands) Blacksburg, VA (800) 526-0650; firstrax.net	\$39 - \$85	Five, from 21" to 42" long	One color, sage green	Pros: Quick set-up, decent headroom, front and side entry, good ventilation, zipper locks. Cons: No “extras.”
	PETNATION PORT-A-CRATE Firstrax (Spectrum Brands) Blacksburg, VA (800) 526-0650; firstrax.net	\$32 - \$57	Six, from 16" to 36" long	One color, tan	Pros: Quick set up, super lightweight. Cons: Small windows could limit airflow.
	SOFT PET CRATE Go Pet Club, Livermore, CA (925) 373-3628; gopetclub.com	\$32 - \$79	Six, from 17.5" to 48" long	One color, green	Pros: Can accommodate larger dogs; roomiest at all sizes. Lightweight. Cons: Feels unstable, takes longer to assemble.
	Soft Side Pet Crate Precision Pet (recently purchased by Petmate, Arlington, TX) (877) 738-6283; precisionpet.com	\$65 - \$99	Four, from 24" to 42" long	One color combination, blue and tan	Pros: Multiple entry doors, quality materials, good ventilation, zipper locks. Cons: Takes longer (comparatively) to set up.
	POP CRATE SportPet Designs, Waukesha, WI info@sportpet.net; sportpetdesign.com	\$27 - \$44	Two, 22.5" and 36" long	Two, blue and red	Pros: Super lightweight and compact design, metal door. Cons: Thin material, small overall size.
	TWO-DOOR SOFT X-PEN Elite Field, Corning, NY (800) 874-4685; elitefieldpet.com	\$43 - \$70	Five, 36" to 62" long	Assorted colors	Pros: More spacious than crates of similar size, lighter than traditional exercise pens. Cons: Difficult to fold up.
	CANINE CAMPER Midwest Pet Products, Irvine, CA (800) 960-1421; midwestpetproducts.com	\$27 - \$91	Four, 24" to 42" long	One, grey	Pros: Thick, rubberized mesh door and windows. Cons: Heavy, awkward to set up, only one door, no zipper lock.

spine strips encased in the crates rounded top. It's not difficult to set up or break down, but it does take longer than any of our top picks.

The Go Pet Club Soft Pet Crate comes in a surprising assortment of sizes, ranging from 17.5 inches to a considerable 48 inches in length. In looking for a mid-size crate of this model, we had a choice of 32 inches or 38 inches. The 38-inch crate is exceptionally roomy, with a width of 28 inches and measuring a full 34 inches at the highest point of the rounded top.

The lack of an internal metal frame means this crate weighs just 12 pounds and folds down to about two inches thick and stores in an included case. However, the lack of a solid internal frame makes the crate less sturdy overall, and the three mesh windows and mesh front entry door (which work together to provide nice ventilation) appear to be made of lighter-weight mesh than the other brands we reviewed.

This crate's biggest "pro" is its generous dimensions. If your goal is to secure the most internal real estate for the price, the Go Pet Club Soft Pet Crate could be a good option.

If you miss your old Cabana Crate: Precision Pet's Soft Side Pet Crate

A decade ago, WDJ's top pick in soft-sided crates was a product called the Cabana Crate. For reasons that escape us, the product was discontinued

Slightly reduced ventilation, and this down-zipped side opening, resulted in a two-paw rating for Precision Pet's Soft Side Pet Crate.

long ago. The Precision Pet Soft Side Pet Crate resembles the Cabana Crate of yore, with some differences. It's an attractive crate with a nice assortment of features, such as front and side-entry doors, storage pockets, non-skid feet, a water bottle opening and holder (for a ball-tip style water bottle), and a crate mat and carrying case. The canvas and mesh are of a nice quality, and the design appears to allow for desirable airflow.

Like many of the other crates we tested, this crate takes shape via a lightweight metal frame. However, of all the similarly designed crates we explored, the Soft Side Pet Crate took the longest to set up. Assembly reminded me of the discontinued Cabana Crate: first remove the crate's cross bars from their self-fastening ties and swing them into position along the front and back (short sides) of the crate. Next, align the twist handles with the corner holes and turn the handles until fully engaged and secure.

This process is not at all difficult, but it does take longer, and it's easy to become spoiled by the even-faster set up of the other crates we tested. Who wants a bulky old CRT TV version of a soft crate when the sleek flatscreen TV variety of crates are out there?

We also found it odd that the side entry door, when unzipped, flips out, not up, creating what looks a bit like



an attached doormat rather than being kept out of the way by resting atop the crate.

In short, there's nothing wrong with this crate, but the additional steps required for set-up and break down kept this option off of our "favorites" list.

A neat idea, but use it wisely: Sport Pet's Pop Crate

Pop goes the soft crate! If small and lightweight are your top priorities, and you have a medium-size, exceptionally well crate-trained dog who needs crating for just short periods of time, consider the Pop Crate by Sport Pet.

Unlike every other crate we tested, the Pop Crate has no internal frame of any kind. The crate consists of two plastic ends – one with a spring-loaded metal door similar to a traditional plastic crate, and one with a full panel of air vents – connected by a rectangle of thin polyester fabric and mesh. To be sure, it wouldn't take much effort at all for a dog to claw or chew his way through the fabric if he were so inclined. I'm not even positive the crate wouldn't tip over if a large dog were to rest his weight against the side.

This crate's claim to fame is its unique twisting design. Unclip the quick-release buckles and the crate springs into shape. To close the crate, stand it on end and twist the front frame 180 degrees, which compacts the crate back onto itself much like a pop-open car window shade.

The Pop Crate comes in two sizes, neither of which is very big, making this, in our opinion, a poor choice for



Go Pet Club's Soft Pet Crate lacks a metal frame, making it lighter, but also less sturdy, than some of the other crates we examined.



There's nothing else on the market like the Pop Crate: a soft-sided crate with a solid door.



dogs much larger than a Shetland Sheepdog. Also, while we like the use of the plastic frame and metal door (adding durability to a commonly chewed and clawed area), the location of the door hinge makes the already tiny opening even smaller. My dog startled himself more than once by hitting the door or doorframe on his way in and out of the crate. It's also so lightweight (the large only weighs 6.35 pounds), it easily slid around on my hard floor with each entry and exit, again, startling my dog.

The large Pop Crate measures 36 inches long by 20.75 inches wide by 22 inches tall. The small Pop Crate is significantly smaller, measuring 22.5 inches long by 14.25 inches wide by 14.5 inches tall. Both collapse to 4 inches high, making it reasonable to pack in a suitcase for travel.

We wanted to love Elite Field's Two-Door Soft X-Pen, but . . .

In selecting products to review, we expanded our definition of "soft crate" to include what is best described as a fully enclosed, soft exercise pen. Like a traditional exercise pen, Elite Field's Two-Door Soft X-Pen consists of eight connected panels, only in this case, the panels are constructed of canvas and

Elite Field's Two-Door Soft X-Pen is not shaped like the other "crates" we reviewed, but functions similarly.

mesh. These create an octagonal enclosure with a diameter of 36-62 inches and a height of 24-36 inches.

We tested the 48-inch pen, which provided plenty of room for two adult Golden Retrievers. The pen has two zippered doors, two storage pockets, a water bottle opening and holder, and a removable (zippered) washable floor mat and mesh top. It's lightweight and comes with a carrying case. Having recently refinished my hardwood floors, I loved the idea of a soft pen.

Elite Field's Two-Door Soft X-Pen seemed like a strong contender as a top pick until it was time to fold it up. It does not come with detailed instructions, nor is it super intuitive. Even after we determined the need to remove the top and bottom of the pen before folding (a disappointment in itself), it took several attempts to discover the correct order in which to fold the panels onto themselves.

When we contacted the manufacturer for input as to the best way to fold the pen, we were told see the set-up instructions (which basically say, "unfold the play pen and expand the play pen") and then to "please just reverse the set up process." Gee, why didn't we think of that? #Sarcasm.

This pen has a lot of potential. If Elite Field would number the panels and add simple instructions for folding it up, this pen could rise to the top of our list. We love the concept, but don't recommend this product if you plan to set it up and take it down often, or if you have low frustration tolerance!



LOWEST-RATED (ONE-PAW) DOG CRATES

The following crate might offer some utility for some dog owners, but didn't, in our opinion, possess enough positive features to outweigh the factors we considered to be drawbacks.

We'll pass on this one: Midwest Pet Product's Canine Camper

Midwest Pet Products is a key player in the wire crate and exercise pen market. Unfortunately, it brought a wire crate mindset to the soft crate market, with (in our view) a poor result.

The Canine Camper is essentially a sparse wire crate encased in canvas. On the outside, it looks similar to any of the soft crates held together by lightweight metal frames. Underneath the attractive canvas cover is a wire frame, which requires a somewhat counterintuitive, two-step process to secure.



Canine Camper is essentially a sparse wire crate encased in canvas.

To add to the challenge, unlike similar soft crates where assembly is easily accessed via a zippered "sunroof" on top of the crate, no such sunroof exists on the Canine Camper; we had to reach in through the crate's front door – awkward!

The extensive wire frame also adds to its weight. We tested the 36-inch model, which weighs 17 pounds – a good bit heavier than the 14.5-pound Port-a-Crate and 14-pound Elite Field crate of the same length.

We did find the Canine Camper to have the sturdiest mesh window and door panels. Rather than a fabric-type mesh, it features thicker, rubberized window and door panels that feel like they might better withstand clawing. 🐾

Stephanie Colman is a writer and dog trainer in Southern California. See page 24 for contact information.

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Alternative Technologies for Arthritis Pain Relief

Non-invasive therapies speed healing and reduce chronic pain.

Arthritis pain, which affects four out of five older dogs, interferes with everything that makes life special for our best friends. Wouldn't it be great if we could turn the clock back?

Technology may not yet offer a time machine, but it can seem that way for dogs treated with modern therapies that make them feel like

puppies again. Would laser treatments, shock wave therapy, Pulsed Electromagnetic Frequency therapy, or other innovative treatments help your dog jump onto the sofa or run and play the way she used to?

VETERINARY LASERS

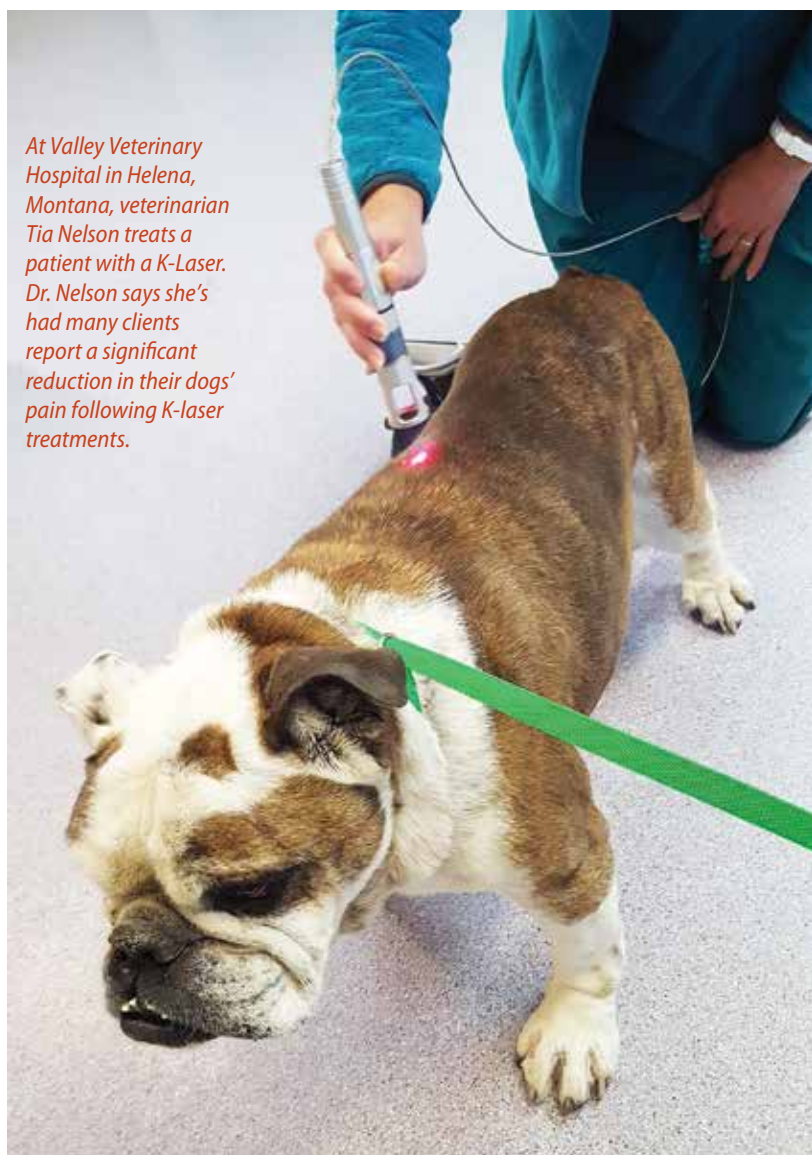
Once exotic, laser treatments have gone mainstream with equipment that is increasingly safe and effective, so that thousands of veterinary clinics treat dogs, cats, horses, and other animals with lasers for a variety of conditions.

The term "laser" was originally an acronym for Light Amplification of Stimulated Emission of Radiation. First developed in the 1960s, lasers are used in fiber optics, computers, military weapons systems, manufacturing, building construction, communications, and medicine.

Laser beams are monochromatic (existing within a narrow band of wavelengths), coherent (tightly aligned), and collimated (with photons traveling in parallel). Lasers vary according to wavelength and power, and some lasers emit pulsing rather than continuous light waves. Power is measured in joules, an electrical energy classification.

Laser equipment varies according to the energy a laser emits (measured in joules); the time it takes the energy to reach target tissue (which determines the length of the treatment); wavelength (the laser's depth of penetration, with blue light superficial, red light deeper, and nonvisible light deeper still); frequency (the number of impulses emitted per second); power (watts, the rate at which the energy is delivered); emission mode (continuous or pulsing); and dosage (joules per square centimeter, or J/cm²).

Class 1 and 2 lasers, which include laser pointers, are generally considered safe but have limited therapeutic use. Class 3 lasers (type 3A emits visible light and type 3B emits nonvisible light) have some therapeutic uses. The most recent laser classification (Class 4), approved for medical use by the U.S. Food and Drug



At Valley Veterinary Hospital in Helena, Montana, veterinarian Tia Nelson treats a patient with a K-Laser. Dr. Nelson says she's had many clients report a significant reduction in their dogs' pain following K-laser treatments.

Administration (FDA) in 2005, is used in human and veterinary medicine to improve circulation, relax muscles, and reduce inflammation, pain, and swelling caused by injuries, surgery, or chronic conditions, such as arthritis.

LLLT, or Low Level Laser Therapy, is performed with “cold” or “soft” lasers, which penetrate the skin’s surface with minimal heating. According to the research group ColdLasers.org, which describes over 40 therapeutic lasers, some class 4 cold lasers will warm the treatment area but are not considered hot lasers because they cannot cut or cauterize tissue.

The plethora of technical terms and conflicting claims can confuse clients and veterinarians alike. In a February 2016 report in the journal *Vetted*, Jennifer L. Wardlaw, DVM, asked, “Should your veterinary practice become laser-focused?” She recommended comparing the wavelength, power density, and pulse modulation of lasers, not just their cost. “For example,” she wrote, “if you get a weak laser with a small diode, it may take 45 minutes to treat a 5-centimeter surgical incision with the correct dosage of 4 to 6 J/cm². But if you get a more powerful laser with a bigger diode, it may only take you five minutes to treat the same patient.”

Dr. Wardlaw recommends starting canine arthritis treatments with 6 to 8 J/cm² every other day for two weeks. For wound healing she prescribes 8 J/cm² once per day for seven days, and for tendonitis 6 J/cm² every other day for two weeks. A hand-held wand delivers the treatment (goggles or sunglasses protect the eyes of practitioners and patients) and the dosage can be applied with a sweeping motion or by using back-and-forth movements as though following a grid while treating one small area at a time.

In 2011, clinicians at the University of Florida’s Small Animal Hospital compared 17 dogs with intervertebral disc disease treated postoperatively with lasers to 17 dogs not treated with lasers. All of the dogs (mostly Dachshunds, a breed associated with intervertebral disc disease) were unable

to walk, and their diagnoses were confirmed through MRI or CT scanning. All underwent decompressive surgery after their diagnoses.

Thomas Schubert, DVM, and William Draper, DVM, treated half of the study’s 34 dogs with Thor Photomedicine’s Class 3B laser (thorvetlaser.com) in the near-infrared range, a wavelength that has been shown to speed the healing of muscle pain and superficial wounds in humans. They presented their findings at the American College of Veterinary Internal Medicine’s 2011 meeting in Denver, calling the results “amazing” because the laser-treated patients walked sooner, avoided medical complications, were less stressed, and reduced their recovery expenses due to less hospitalization time.

GOOD ANECDOTES

Tia Nelson, DVM, at Valley Veterinary Hospital in Helena, Montana (valleyvethelena.com), has used the K-Laser (k-laser.com), a popular Class 4 device, to treat more than a hundred dogs for pain and wound healing. “The initial protocol is six treatments over three weeks,” she explains, “typically three the first week, two the second, and one the third, then as needed after that, usually once a month. The results vary, depending on the condition’s severity, location, and cause along with the dog’s age and activity levels, but most dogs seem to be more comfortable for many weeks after the initial treatments and some don’t need additional therapy.”

Dr. Nelson keeps track of her clients’ anecdotal reports. “Typically, we hear about dogs now being able to scramble happily up and down the stairs,” she says, “and generally being more active and engaged with their families.”

One of Dr. Nelson’s favorite patients is a Pomeranian who stopped jumping on the bed to sleep with her owner due to lower back arthritis. “Pain meds weren’t helping,” she says, “and joint-protecting supplements offered minimal relief. The owner was somewhat skeptical but agreed to try the K-Laser treatments. She called me

almost in tears of joy after the first week’s treatments because her little girl was able to jump up on the bed!”

The website of the American Holistic Veterinary Medical Association (ahvma.org) lists 280 member veterinarians who provide laser therapy, and more can be found with simple online searches.

LASERS DESIGNED FOR HOME USE?

There are no clinical trials in the medical literature testing lasers designed for home use, but if you look for them, you can find people who have bought portable low-level lasers and who report good results on themselves and on their pets. You can find portable Low Level Laser Therapy equipment ranging in price from \$119 to \$299, as well as units that are more expensive, on sites such as Amazon.com.

Some lasers that are used for pain relief are marketed as beauty products for wrinkle reduction and other cosmetic effects because their distributors cannot promote them as medical devices. Customer support, refund policies, and product warranties vary, so check with manufacturers for details, and take online customer reviews with a grain of salt.

One might take comfort from marketing claims that products are “FDA cleared,” “FDA approved,” or “FDA registered.” Please note, however, that these are not official endorsements. A manufacturer registered with the FDA has completed an application informing the FDA of its products and is thus “FDA registered.” A medical device that is “FDA cleared” is “substantially equivalent” to a device already on the market. “FDA approval” means only that the FDA has reviewed the manufacturer’s testing results and has concluded that the benefits of the product outweigh its risks.

At Muller Veterinary Hospital’s Canine Rehabilitation Center in Walnut Creek, California (mullerveterinary-hospital.com), Erin Troy, DVM, has worked with canine patients who did not appear to benefit from home laser devices. “But they did respond when

treated with Low Level Laser Therapy using a proven effective laser used by someone knowledgeable about what settings to use and where to treat,” she says. “I’m frustrated with home devices because there is much more to laser therapy than point-and-push-the-button.”

These are early days in veterinary laser treatments, and the few articles published about them in the medical literature caution that more blinded, placebo-controlled clinical trials are needed before the use of lasers is routinely advocated, especially for conditions other than pain, inflammation, and wound healing. If you are considering the purchase of a Low Level Laser for using on your dog at home, we’d suggest finding a veterinarian who uses and is knowledgeable about lasers, and who will show you how best to select and use a therapeutic laser at home.

RED LIGHT THERAPY

Also known as photonic therapy, low-intensity light therapy, LED therapy, photobiostimulation, photobiomodulation, and photorejuvenation, the application of red light by means of a hand-held device, stationary panels containing LED lights, or units designed for treatment from a distance or in direct contact with the skin all claim to reduce inflammation and arthritis pain in pets and people. You can find a dozen or more different models online.

Red light therapy uses wavelengths of light between 620 nm and 700 nm, with the most popular wavelengths used in in-home products between 630 nm and 660 nm. Some devices include multiple wavelengths.

The most popular red light device may be the \$270 Tendlite (tendlite.com), which resembles a slender flashlight powered by a rechargeable battery that emits red light at 660 nm. The Tendlite is held 1 inch from the area to be treated for 1 minute at a time. (Most red light therapy devices require longer treatment times.)

For additional information about red light therapy and red light devices, see Red Light Therapy Guide

(redlighttherapyguide.com), Red Light Man (redlightman.com), and Photonic Health (photonichealth.com), which focuses on red light therapy for dogs, cats, and other animals.

SHOCK WAVE THERAPY

It sounds electric, but shock wave therapy is actually the application of high-energy sound waves to specific parts of the body, such as to break up kidney stones and gallstones without the need for invasive surgery. For 25 years, ESWT (Extracorporeal Shock Wave Therapy, which refers to the waves’ generation outside the body) has been used to treat orthopedic conditions and joint pain in humans, horses, and dogs.

The canine conditions shown to improve with ESWT include osteoarthritis, hip and elbow dysplasia, chronic back pain, osteochondrosis lesions, sesamoiditis (degeneration of small bones in the foot that causes persistent lameness, especially in racing Greyhounds and Rottweilers), tendon injuries, lick granulomas, cruciate ligament injuries, nonunion or delayed-healing bone fractures, and painful scar tissue.

As WDJ contributor Mary Straus reported in her May 2008 article “Shock Waves for Arthritis,” the treatment can have impressive results. Straus was contacted by New Jersey resident Debbie Efron when her veterinarian, Charles Schenck, DVM, a past president of the American Holistic Veterinary Medical Association, recommended shock wave therapy for Taylor, Efron’s 12-year-old Labrador Retriever, who had arthritis in her hips, spinal column, and right hock, and who had just torn a ligament in her right knee. Efron had never heard of shock wave therapy and asked for Straus’s opinion.

Encouraged by the positive results Straus found in the medical literature, Efron scheduled the procedure. Dr. Schenck treated Taylor’s hips, hock, and knee in two sessions, three to four weeks apart. He did not recommend shock wave therapy for the spine; he felt it works better where there is more soft tissue, so he continued treating the



12-year-old Hayley's spondylosis was treated with shock wave therapy. Her pain increased for a few days after treatment – and then dramatically reduced.

spine with acupuncture. Dr. Schenck hoped that eventually Taylor would experience an 80 percent improvement lasting six to seven months.

Just a few days after the first treatment, Efron told Straus, “Taylor is greeting me at the door with a toy in her mouth, something she stopped doing weeks ago. She is eager to go for walks and pulls me around the block with no limping and her back legs no longer buckle. She is playful again, wanting to wrestle and play.”

Eight months after treatment, Efron sent an update: “Taylor is on no medications, but she gets a lot of supplements and a raw diet. I think her improvement peaked about eight weeks after the second treatment, and she’s been great on walks ever since.”

As Kristin Kirkby, DVM, wrote in “Shock Wave Therapy as a Treatment Option” in the August 2013 *Clinician’s Brief*, “Shock waves can be generated in many ways, but electrohydraulic devices have the greatest capacity to produce and project high energy to a deep focal depth. ESWT can be highly focused and can achieve a focal point beyond 10 centimeters into deeper tissues, depending on the treatment head used. ESWT differs from radial pressure wave therapy, which does not deliver focused energy at the target; instead, acoustic waves spread eccentrically from the applicator tip.”

According to Dr. Kirkby, shock wave therapy has been shown to modulate the osteoarthritic disease process in

animal models. Several studies have demonstrated positive results in joint range of motion and peak vertical force – as measured using force plate analysis – in dogs with stifle, hip, and elbow arthritis. For example, in dogs with unilateral elbow osteoarthritis treated with ESWT, improvement in lameness and peak vertical force was equivalent to that expected with nonsteroidal anti-inflammatory drugs.

A dog may be shaved to reduce interference between the probe and the dog's skin, and a gel is applied to improve transmission. Treatment time depends on the amount of energy delivered and number of locations treated. A common dose of 800 pulses per joint requires fewer than 4 minutes to deliver.

The first shock wave generators were expensive, bulky, noisy, and painful, but the technology keeps improving. The new PiezoWave2 Vet Unit (elvationUSA.com) uses piezoelectric crystals to produce high-pressure sound waves and it has made ESWT machinery smaller, more affordable, and more accessible for large and small animals to receive treatment without sedation. TRT's VetGold device (trtlc.com) is now also smaller and almost pain-free, no anesthesia required.

The makers of the VersaTron 4 Paws and the newer, smaller ProPulse shock wave devices (pulsevet.com) publish case studies online, including reports of arthritic inflammatory disease, shoulder and elbow arthritis, and lumbar spondylosis in Labrador Retrievers and other dogs. In several

cases, a variety of conventional and alternative therapies had been tried with minimal success, and the dogs were in severe chronic pain. In some cases lameness increased after the first treatment, but most dogs experienced significant improvement within a week.

Because shock wave therapy does not cure or reverse arthritis, its relief of symptoms may diminish after several months or a year, at which time a repeat treatment may be needed.

ULTRASOUND THERAPY

Best known as a diagnostic tool or a means of determining an unborn baby's sex, ultrasound has been used by physical therapists since the 1940s to alleviate pain and inflammation. Sound waves generated by a piezoelectric effect caused by the vibration of crystals in the head of a wand or probe pass through the skin and vibrate adjacent tissues.

In addition to having a warming effect, ultrasound has been shown to increase tissue relaxation, local blood flow, and scar tissue breakdown. Conditions treated with ultrasound include tendonitis, joint swelling, and muscle spasms. The treatment is not recommended on or around malignant tumors or metal implants.

In March 2008, a critical review of published research on the effects of ultrasound in the treatment and management of osteoarthritis in humans appeared in the *Journal of the Canadian Chiropractic Association*. Seventeen articles met the researchers' criteria for methodology and accurate reporting; most of them showed that ultrasound, in addition to being cost-effective, portable, and easy to use, has significant therapeutic benefits.

For information about veterinary ultrasound therapy and referrals to veterinarians who treat dogs for arthritis and other conditions with this approach, contact the

American Association of Rehabilitation Veterinarians (rehabvets.org) or the Canine Rehabilitation Institute (caninerehabinstitute.com), or simply search online for veterinary ultrasound therapy.

PULSED ELECTROMAGNETIC FIELD THERAPY (PEMF)

Magnets have long been thought to have healing properties, and whole industries have been created around the alleged benefits of magnetic jewelry, massage tools, mattress pads, and other devices. Do they work? A lack of research on the application of magnets to human or canine illnesses or injuries makes it hard to know.

But when it comes to pulsed electromagnetic field therapy, or PEMF, the evidence is growing. For many years electromagnetic field therapy was widely used in Europe while its use in the United States was restricted to animals. Veterinarians treating racehorses for broken bones were the first American health professionals to use PEMF. Now thousands of human clinical trials have shown beneficial results from PEMF therapy for chronic low back pain, fibromyalgia, cervical osteoarthritis, osteoarthritis of the knee, lateral epicondylitis, recovery from arthroscopic knee surgery, recovery from interbody lumbar fusions, persistent rotator cuff tendonitis, and other conditions.

The first PEMF device was a coil that generated a magnetic field into which the patient's body was placed to deliver treatment. Most of today's PEMF devices are mats similar to thick yoga mats containing flat spiral coils that produce an even electromagnetic field, or they consist of rings or coils that are placed on or under the person or animal being treated, or they are flat, circular magnets that can be placed under a mattress. An electric-frequency generator energizes the coils to create a "pulsed" electromagnetic field.

Comparing PEMF devices by their technical specifications requires a crash course in frequency, amplitude, intensity, sine waves, sawtooth wave forms, Schumann resonance frequencies, and

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other terms – and even the technically informed disagree as to which combinations are best for human, canine, and equine health. Intensity is measured in Tesla units (μT) and frequency is measured in Herz units (Hz). Those who compare PEMF systems usually recommend staying close to the earth's magnetic field frequencies (11.75 and 11.79 Hz, or in the 0 to 30 Hz range) and low intensity (1 to 20 microtesla, which is less than the earth's 30-66 microtesla).

Most of the websites mentioned here provide technical information and reports that help users understand the basics.

PEMF devices can be used for acute and chronic conditions, and there are no known adverse side effects, potential drug interactions, or interactions with surgical implants. The electromagnetic field penetrates clothing, fur, casts, and bandages to reach all tissue in the target area.

Acute inflammation often improves after one or two treatments, while chronic or degenerative symptoms may need two weeks or a month. In most cases, pain medications can be reduced or eliminated. (This should be done under medical supervision.)

Thanks to PEMF's popularity in Europe, low-intensity, low-frequency, full-body PEMF mats are available in the United States. They are designed for humans but some users report improvements in dogs and cats recovering from accidents or illness, including arthritis in older animals. Pets often seek out and sleep on PEMF devices.

The best full-body mats are expensive, with the iMRS (swissbionic.com), which is made in Switzerland, starting at \$3,600, and the Bemer (united-states.bemergroup.com), which is manufactured in Liechtenstein, starting at \$4,300. Both can be rented by the month.

PEMF FOR PETS

In addition to full-body mats for people, the PEMF marketplace offers products specifically for dogs, cats, horses, and other animals. See the American Holistic Vet-

erinary Medical Association website (ahvma.org) for veterinarians who provide pulsating magnet therapy.

Originally designed for human use, the Assisi Loop is sold by Assisi Animal Health (assisianimalhealth.com) for use with pets. According to its manufacturer, "The Assisi Loop generates a twice-per-second 2-millisecond burst of a 27.12 Megahertz radio wave signal with an amplitude of 4 microtesla. This pulse-modulated field is non-thermal and non-invasive, yet is sufficient in strength to have therapeutic benefit."

The Loop's electromagnetic field extends 4 to 5 inches on either side of the coil. The Assisi Loop website explains, "By emitting a burst of micro current electricity, a field is created which evenly penetrates both soft and hard body tissue around the target area. This electromagnetic field causes a chemical cascade, which activates the well-known nitric oxide cycle. Nitric oxide is a key molecule in healing for humans and animals. The compound is released when we exercise, and when we are injured, for the body to naturally repair itself."

The Assisi Loop comes in two sizes, 7.5 inches (20 centimeters) or 4 inches (10 cm). The smaller loop is convenient for treating extremities, small animals, or conditions that are focused in an area less than 4 inches in diameter. For chronic or degenerative conditions like arthritis, the manufacturer recommends giving dogs three or four 15-minute treatments per day for a week to 10 days, monitoring until you see improved mobility and less pain response. You can then taper down to one or two treatments per day or even one to three

The Assisi Loop, being used to treat knee pain.



What you can do

- *If your dog has chronic arthritis pain – especially if he’s relatively young for such troubles – consider exploring some of these alternative options.*
- *Look for a veterinary practitioner who is open to alternative technologies. Many have developed a preference for a certain tool, based on good results with previous clients.*

treatments per week, and over time the patient may be treated only as needed for pain.

Both sizes of the Assisi Loop offer a minimum of 150 15-minute treatments and the Assisi Loop 2.0 Auto-Cycle offers a minimum of 100 15-minute treatments. The life of the Loop depends on its battery, which, because of FDA regulations, cannot be recharged or replaced. One Assisi Loop typically lasts from three weeks to six months, depending on the condition being treated and the number of treatments required per day.

The Assisi Loop can be purchased (\$280) from veterinarians and animal rehabilitation facilities or directly from Assisi Animal Health with a prescription from your veterinarian.

Magna Wave (magnawavepemf.com) sells several professional PEMF devices for between \$7,000 and \$21,000, plus a Magna Wave LP (Low Power) model, which is recommended for bone and soft-tissue injuries, for \$429. According to its manufacturer, the Magna Wave LP incorporates Inductively Coupled Electrical Stimulation (ICES) technology that penetrates beneath the skin’s surface and zeros in on affected deep-tissue areas. Magna Wave provides PEMF training, practitioner certification, and technical/business support for veterinarians and other health care professionals.

EarthPulse PEMF (earthpulse.net) consists of a circular magnet that goes under your (or your dog’s) mattress, by itself or in combination with a second magnet. The magnets plug into a sim-



It’s important to keep arthritic dogs moving; the less they move, the less they will be able to move. Consider any therapy without adverse side effects that reduces pain and helps your dog maintain activity.

ple control unit and can be left running without supervision for up to 12 hours. Its adjustable amplitude settings, recovery mode, and sleep programs make the EarthPulse a versatile, portable, “set it and forget it” PEMF device. Its five systems range in price from \$499 for the basic single-magnet model to \$1,799 for the four-magnet battery operated unit recommended for horses.

The Bio-Pulse Dog Therapy System (respondsystems.com) consists of a large (for dogs over 50 pounds) or small (up to 50 pounds) mat with magnetic coils mounted on soft foam. “The depth of field of Respond Systems Bio-Pulse PEMF Therapy System can penetrate through the entire body of a dog lying on the bed reaching deep into the joints and muscles, stimulating circulation,” explains the website. “The system can be placed on the couch, in a crate, under your animal’s bedding or even in the car.” Prices range from \$599 to \$899.

The only PEMF system that’s designed to be worn by dogs is Brandenburg Equine Therapy’s SI (Sports Innovations) Canine PEMF Therapy Blanket. It comes in three sizes (small, medium, and large) and is recommended for recovery, pain management, increased circulation, vitalization, and general relaxation. Another option is the PEMF dog mat, which can be placed on any sleeping surface. The therapy blankets and mats, which are made in Germany, cost \$1,650 each and can be rented. For information, see brandenburgequinetherapy.com.

THE AMETHYST BIOMAT

Who wouldn’t want to rest on a bed of amethyst crystals? Add gentle heat produced by far infrared technology and the relaxing benefits of negative ions,

and you have a spa experience – one that your dog can enjoy, too.

BioMats, manufactured in South Korea where the technology is popular and well researched, are known for their anti-inflammatory effects, providing relief from sprains, strains, muscle and joint pain, stiffness, stress, and fatigue. BioMats come in several sizes, starting with the BioMat Mini (17 by 33 inches, 8 pounds, \$670 plus \$40 shipping). The mat is sewn with channels containing alternating rows of amethyst and tourmaline crystals, known among crystal enthusiasts for their healing properties; see thebiomat-company.com for more information.

For years I kept a BioMat Mini on our sofa, turned to the lowest heat setting. Chloe, my Labrador Retriever, ignored it because she preferred to sleep with her head on a frozen water bottle. But with age, her preferences changed, and by her 10th birthday, Chloe was spending a few hours every day stretched out on the sofa. Many BioMat users report that, like Chloe, their dogs went from stiff and sore to more relaxed and mobile soon after they started resting on the mat.

CREATURE COMFORTS

As our dogs age, we do everything we can to make them comfortable. In addition to nutrition, exercise, weight management, natural and prescription pain medications, aromatherapy, medicinal herbs, and assistive devices, today’s technologies may provide the support that will make a difference for your older dog. 🐾

Montana resident CJ Puotinen is the author of The Encyclopedia of Natural Pet Care and other books. See “Resources,” page 24, for more information.



Are Canines Cognitive?

We have no doubt: Dogs have greater powers of reasoning and intelligence than we usually give them credit for. Learn how to teach your dog to show you how and what he thinks!



In the mid 17th century, French philosopher René Descartes posited, “Cogito ergo sum” – “I think, therefore I am.” This became a shortened summation of his proposition that there must be a thinking entity in order for there to be a thought. Who can doubt that dogs and other non-human animals think?

There was a time, centuries ago, when scientists and philosophers told us that animals don't feel pain. Of course, we know now how wrong and cruel that was, and I doubt there's a *Whole Dog Journal* reader out there who would try to argue that dogs don't feel pain.

Then we were told that humans are the only species that make and use tools. Oops, wrong again. A quick online search on “Animals, Tools” finds multiple intriguing articles and videos about a multitude of various animals that make and use tools, including insects, birds, mammals, and more.

Next, we were warned that if we credited “human” emotions to non-human animals we were engaging in anthropomorphism, defined as “the attribution of human traits, emotions,

and intentions to non-human entities.” It's now pretty widely accepted that many other animals, including dogs, share much the same range of emotions that we do, and in fact that it's pretty arrogant of us to claim them as “human” emotions. Think about it. Can your dog be happy? Sad? Frightened? Worried? Those are emotions.

In our apparently endless quest to prove our species superior to all others who walk this earth, even as those other dominoes fall, we have long clung stubbornly to the belief that dogs and other species were seriously deficient in the cognition arena. Defined as “perception, reasoning, understanding, intelligence, awareness, insight, comprehension, apprehension, discernment” (and more, depending on the source), cognition also includes the ability to grasp and apply concepts, and “theory of mind” – the ability to recognize and understand the thoughts of others.

IT'S ACADEMIC

Fifteen years ago, you wouldn't have found the words “canine” and “cognition” in the same sentence. Today, following on the heels of a blossoming interest in animal cognition in the field of behavioral science, there are canine cognition researchers and laboratories springing up all over the world. Among the most notable: Adam Miklosi's “Family Dog Project” at Eötvös Loránd University, in Budapest, Hungary; the Horowitz Dog Cognition Lab at Barnard College in New York City (with Julie Hecht and Alexandra Horowitz); the Clever Dog Lab at the University of Vienna, in Austria (Zsófia Virányi and Friederike Range); and the Duke Canine Cognition Center at Duke University in Durham, North Carolina (Brian Hare).

You can find a more complete list of Canine Cognition research centers at Patricia McConnell's blog on the subject (tinyurl.com/dogcoglist). Suffice it to say, it's happening all over the place.

So what does this mean for the regular dog

What you can do

- *Get cognitive with your dog. Check out the possibilities and play with the ones that appeal to you.*
- *Find a dog training professional in your area who offers classes or instruction in canine cognition learning.*
- *Give your dog opportunities to make choices and observe his selections; you might learn something about him that you never knew!*

owner? The knowledge gained and shared by canine cognition researchers can inspire your local forward-thinking dog training and behavior professionals to introduce new and interesting activities in their dog training programs.

You can also access a growing body of information that can lead you to fascinating things you can do with your own dog in the comfort of your own home. Brian Hare, PhD, who co-authored *The Genius of Dogs* with his wife, Vanessa Woods, created the citizen science Dognition program (dognition.com), which offers a cognition assessment tool for your dog and a new cognition game you can do with your dog each month. (See “The Dog’s Mind,” WDJ May 2013.) Our new and growing understanding of canine cognition can move the entire dog training profession toward a more enriched world that better meets the needs of our canine companions.

EARLY COGNITION FUN

Here at Peaceable Paws (my training center in Fairplay, Maryland), we have been following the canine cognition revolution with great interest. One of the first glimmers of a practical appli-

Assign consistent names to the things your dog plays with, and teach him those names. Then you can ask him to find or fetch specific toys.

cation of our dogs’ cognitive abilities came with Claudia Fugazza’s “Do As I Do” protocol. (See “Copy That,” WDJ October 2013.) Studying under Adam Miklosi in Hungary, Fugazza developed a protocol to teach dogs to imitate human behavior – something it was previously believed dogs weren’t capable of doing. We started offering “Copy That” workshops, and delighted in seeing dogs master the art of imitation.

The training world has also embraced the cognitive concept of choice for our canine pals. (See “Pro-Choice,” WDJ November 2016.) To quote psychology professor Dr. Susan Friedman, “The power to control one’s own outcomes is essential to behavioral health.” Acknowledging that dogs often have very little choice in their lives, trainers have begun teaching a “You choose” cue, encouraging clients to find more ways of offering their dogs a choice. (See “How to Play ‘You Choose,’” page 21.)

MORE FUN WITH COGNITION

Many cognition games involve the concept of “discrimination” (selecting one designated object from other similar ones) and “fast mapping” (quickly learning the names of new things and

being able to correctly identify them). The famous Border Collie Chaser knows the names of hundreds of different objects and is able to correctly select the one her handler asks for. Even more impressive, if a new object is placed with several that she already knows, when asked for the new object she can correctly select that one and bring it back, using “process of elimination” (she knows all the others and correctly surmises the new word must apply to the unknown object).

Here are some discrimination games you and your dog can play. In each case, we are asking her to grasp a concept – object names, shapes, colors – and apply that understanding to make correct choices:

■ Object Discrimination

- Select two objects that your dog likes – a stuffed toy, a ball, a stick. If she already knows the names of the objects, you’re ahead of the game!
- Name one object, offer it in your hand, pause, and then cue her to touch it with her nose or paw – ie. “Ball, touch!” When she does, click and treat. Repeat several times.



- Now do the same with your second object – “Teddy, touch!” Click and treat.
- Now offer both objects at the same time. In order to help her succeed, offer one closer to her, and cue her to touch that one. Repeat multiple times, randomly alternating which one you offer closer to her and ask her to touch. Also switch sides, so the same object isn’t always in the same hand.
- Gradually decrease the offset of the target object until you can offer them both to her at the same distance, and she will consistently touch the one you ask her to touch.
- Now repeat the process with the objects on the floor, again starting with the target object closer to her to help her succeed, until she can touch either requested object consistently and correctly with both objects the same distance away.
- Finally, name and add more objects to her repertoire. The sky’s the limit!



■ **Shape Discrimination**

For this one, you will need to find or make shapes that are similar in size and color, with the shape being the only difference. We use black shape silhouettes (squares, circles, and triangles) glued onto square white boards.

- As with the object discrimination game, hold up one shape, name it, and ask your dog to touch it, i.e., “Square, touch!” Repeat several times.
- Now do the same with your second shape – “Circle, touch!”
- Now offer both shapes at the same time. In order to help her succeed, offer one closer to her, and cue her to touch that one. Repeat multiple times, randomly alternating which one you offer closer to her and ask her to touch. Also switch sides, so the same shape isn’t always in the same hand.
- Now repeat the process with the shapes on the floor, propped up against a wall, again starting with the target shape closer to her to help her succeed, until she can touch either requested shape consistently and correctly with both objects the same distance away.

- Finally, name and add more shapes to her repertoire.

■ **Color Discrimination**

This one can be a little tricky, since dogs are red-green color-blind, like some humans. Blue looks like blue to them, yellow looks like yellow, and black looks like black. Greens and oranges also look “yellow-ish,” while reds look brown or tan. When we teach colors we use col-

You can use this method to teach your dog shapes and colors. As he gains competence, see if he can find yellow squares or blue circles!

ored paper plates and start with blue and yellow, since we know dogs can distinguish those. We then use red for our third color, since whatever it looks like to the dog, we know it is different from blue or yellow. The process is essentially the same as the previous two discrimination exercises.

- Hold up one color, name it, and ask your dog to touch it, i.e., “Blue, touch!” Repeat several times.
- Now do the same with your second color – “Yellow, touch!”
- Now offer both colors at the same time. In order to help her succeed, offer one closer to her, and cue her to touch that one. Repeat multiple times, randomly alternating which one you offer closer to her and ask her to touch. Also switch sides, so the same color isn’t always in the same hand.
- Repeat the process with the colors on the floor, again starting with the target color closer to her to help her succeed, until she can touch either requested color consistently and correctly with both the same distance away.
- Finally, name and add red to her repertoire.

And what then? You can get creative and mix them up. See if she can learn to select the red balls from a pile of red and blue ones. Teach her the names of the rooms in your house and ask her to bring the yellow Frisbee to you from the bedroom. Teach her the names of family members and ask her to take the blue teddy to Dad in the living room.

READING, WRITING, AND 'RITHMETIC

No fooling – taking cognition one step farther, it really is possible to teach dogs to read, count and even write. We’ve touched on canine reading before (See “Teaching Your Dog to



Yes, dogs can learn to read, sort of. They can readily learn to recognize simple words and remember what cue they are associated with.

Read,” WDJ October 2006), but here’s a quick rundown of how to start:

- Make two white signs that are identical in size and shape, with the word “SIT” in large black letters on one sign, and the word “DOWN” on the other.
- With your dog standing in front of you, hold up the “SIT” sign, pause, and verbally cue your dog to sit. Repeat until you can hold up the sign and he sits without you having to say “Sit.” He now thinks holding up a white square with black squiggles on it is a cue for “Sit.”
- Now hold up the “DOWN” sign in the exact same position you previously held up the “SIT” sign, and verbally cue your dog to down. Repeat until you can hold up the sign and he lies down without you having to say “Down.” He now thinks holding up a white

How to Play “You Choose”

Our dogs have very little opportunity for choice in their lives in today’s world. We tell them when to eat, when to play, when to potty, when and where to sleep. We expect them to walk politely on leash without exploring the rich and fascinating world around them, and want them to lie quietly on the floor for much of the day. Compare this to the lives dogs used to live, running around the farm, chasing squirrels at will, eating and rolling in deer poop, chewing on sticks, digging in the mud, swimming in the pond, following the tractor...

There’s a good likelihood that this lack of choice is at least partly responsible for the amount of stress we are seeing in many of our canine companions these days. Imagine how stressed you would be if your life was as tightly controlled as your dog’s!

We can introduce choice to our dogs by teaching them a “You Choose” cue:

Select a very high-value and very low-value treat. Show one to your dog and name it (Meat, Beef, Chicken). Let her eat it. Repeat several times. Show the other to your dog and name it (Kibble, Milkbone). Let her eat it. Repeat several times. Now tell her to “Wait,” say your high-value name, put it in a bowl and set it on the floor at your feet. Repeat “Wait” if needed, say your low-value name, put it in a bowl and set it on the floor six inches to the side of the first bowl. Now say “You choose!” “Pick one!” (or whatever you want your “Choice” cue to be) and invite her to choose a bowl. While she eats that treat, pick up the other bowl.

Repeat numerous times, randomly putting down high-value/low value first, on random sides, until it’s clear she’s realizing she can choose her preference. (You might be surprised to discover what you think is higher value for her; it may not be!)

Now think of other ways you can offer your dog choices in her daily life!

square with black squiggles is the cue for “Down.”

- Now vary which sign you hold up in the exact same position, pause and cue the appropriate behavior, until you see that your dog is beginning to offer the correct behavior in response to whichever sign you hold up. Your dog is reading – if recognizing that one set of squiggles means he should sit, and the other means he should lay down.
- If you want to take it further, make additional cue cards for behaviors your dog knows, and use the same procedure to teach him new words.

What about writing and arithmetic? Ken Ramirez, former head curator at the Chicago Aquarium and current Executive Vice President and Chief

Training Officer of Karen Pryor Clicker Training, has taught his dog to count to 14. It’s too complicated to explain here, but you can read Ramirez’s description of the amazing project here: clickertraining.com/node/5002.

Emily Larlham of Dogmantics Dog Training (dogmantics.com) in San Diego, California, demonstrated her dog’s ability to write words with a marker held in his mouth to a dumbfounded crowd of dog trainers at last year’s Pet Professional Guild Summit in Tampa, Florida. I kid you not. There is still so much more to learn about our dog’s cognitive abilities. The sky truly is the limit. 🐾

Author Pat Miller, CBCC-KA, CPDT-KA, is WDJ’s Training Editor. Miller is also the author of many books on positive training. Her newest is Beware of the Dog: Positive Solutions for Aggressive Behavior in Dogs. See page 24 for information on her books and classes for dog owners and trainers.



OTC Oral Flea Control

There are four over-the-counter oral medications that can kill fleas on your dog. All are in the same chemical class; three contain the same short-acting active ingredient.



These oral medications work fast to kill fleas, but don't linger for long in the body.

Last month, in “Oral Flea-Control Meds,” we described the five oral medications that veterinarians may prescribe to stop or prevent a dog’s flea infestation. This month, we’ll describe the four oral medications that kill fleas on dogs and are available to owners as over-the-counter (OTC) products – no prescription necessary.

As with last month’s installment in this mini-series on flea-control options, the descriptions of these products should *not* be taken as a recommendation or endorsement. (For more about this, see “Panacea or Poison?” on page 2 of this issue.) These products are *already* purchased by dog owners by the millions. Our intent in describing them by chemical class is to inform owners how they work, and what dogs they are indicated for and, more importantly, *contraindicated* for.

Contraindications are conditions under which something should *never* be used; in our

experience, owners and veterinarians alike are often completely unaware that these ubiquitous medications shouldn’t be given to certain dogs.

Note: Last month, we said that we would discuss both OTC oral flea-killing medications, as well as prescription medications that help control fleas through the use of insect-growth regulators, in *this* article. Instead, we’ve broken these two topics into their own separate pieces. We will discuss the products containing insect-growth regulators in another issue.

NEONICOTINOIDS

The oral flea-killing products that have been approved for OTC sale in the United States are in a class of chemicals called neonicotinoids.

Insects and mammals alike have nicotinic acetylcholine receptors (nAChRs) in the cells in their central nervous systems (mammals also contain these receptors in their peripheral nervous systems). Neonicotinoids bind to these receptors, overstimulating them to the point that they cause paralysis and death. The chemicals bind more strongly to insect neuron receptors than mammal neuron receptors, making them more toxic to insects than mammals.

OVER-THE-COUNTER (OTC) ORAL FLEA-KILLING MEDICATIONS

Product Name Maker Phone	Effective Against	Chemical Class	Active Ingredients	Frequency of Administration	Manufacturer’s Statement Regarding Efficacy	Date of FDA Approval	Minimum Age and Weight
CAPSTAR Elanco (888) 545-5973	Fleas	Neonicotinoid	Nitenpyram	Daily	>98% of fleas within 6 hours, starts killing fleas within 15 minutes	2000	4 weeks and 2 lbs
CAPGUARD Sentry (Perrigo) (800) 224-7387	Fleas	Neonicotinoid	Nitenpyram	Daily	>90% fleas within 4 hours, starts working within 30 minutes	2014	4 weeks and 2 lbs
FASTCAPS PetArmor (Perrigo) (800) 224-7387	Fleas	Neonicotinoid	Nitenpyram	Daily	“Kills fleas fast”	2014	4 weeks and 2 lbs
ADVANTUS Bayer (800) 422-9874	Fleas	Neonicotinoid	Imidacloprid	Daily	>96% of adult fleas within 4 hours, starts killing fleas within 1 hour	2015	10 weeks and 4 lbs

Neonicotinoids are widely used in agriculture to control insects.

Three of the four OTC oral flea-killing products on the market contain nitenpyram, a neonicotinoid chemical that gets rapidly absorbed into the dog's bloodstream from his gastrointestinal tract, and clears rapidly, too. On average, the peak blood concentration is reached in one hour (range: 15 to 90 minutes) after administration, and the elimination half-life is about three hours. These products work fast, but only for about 24 hours; more than 90 percent of the nitenpyram is eliminated in the urine within one day in dogs.

Because they are so fast-acting and have such a short span of activity in the dog's body, these medications are commonly used when a dog who is heavily flea-infested needs to be cleared of fleas *fast* – perhaps so he could be transported or kenneled without fear of introducing fleas into a previously flea-free environment. These products are also a good choice to eliminate fleas quickly, without leaving a pesticide on or in the dog's body for weeks to come.

The fourth product contains imidacloprid, one of the most heavily used agricultural insecticides in the world. Imidacloprid has been used in the “spot on” topical flea-killing product Advantage since 1996. Imidacloprid is considered to be “low” in toxicity via dermal (skin) exposure, but moderately toxic when ingested, which makes its introduction in an oral product counter-intuitive. It, too, has a short half-life (2.2 hours) and reaches its peak blood concentration quickly 1.3 hours.

■ Capstar, Capguard, and FastCaps

The active ingredient in all three of these products is nitenpyram; it's included in each of the products in the same amount, so we will discuss all three together.

Because it's so fast-acting, shelters and rescue groups have long used Capstar when they received an animal who was so heavily infested

with fleas that handling, kenneling, or transporting the animal puts other animals at risk of infestation.

Each of the drugs comes in the form of a tablet, and each is offered in two dosage sizes: a tablet containing 11.4 mg of nitenpyram, meant for dogs weighing from two to 25 pounds, and a tablet containing 57 mg of nitenpyram, meant for dogs weighing from 25.1 to 125 pounds. The minimum dose is 1.0 mg/kg (0.45 mg/lb) of the dog's body weight.

Adverse reactions that may occur in dogs include lethargy/depression, vomiting, itching, decreased appetite, diarrhea, hyperactivity, incoordination, trembling, seizures, panting, allergic reactions, including hives, vocalization, salivation, fever, and nervousness.

The frequency of serious signs, including neurologic signs and death, was greater in animals under two pounds of body weight, less than eight weeks of age, and/or reported to be in poor body condition. In some instances, birth defects and fetal/neonatal loss were reported after treatment of pregnant and/or lactating animals.

These products are said to be safe when used concurrently with other products, including heartworm preventatives, corticosteroids, antibiotics, vaccines, deworming medications, and other flea products.

■ advantus

Bayer Healthcare spells the name of this product with a small a. The product represents a very new application of imidacloprid – to our knowledge, the first oral use of imidacloprid as an insecticide for animals. The FDA granted Bayer a three-year period of marketing exclusivity from the date of its approval (in 2015).

Advantus does not contain any animal proteins, making it suitable for dogs with animal-protein food allergies.

The drug is delivered in the form



What you can do

- *The dosages of the products discussed here cover a wide range of weights. A dog at the low end of the weight range indicated for either dose might receive five times as much medication as needed. If your dog is at the low end of the weight range, consider doing the math and splitting the chew or tablet to give your dog an effective dose that's more appropriate for her size.*
- *For example, the minimum dose of Capstar is 0.45 mg per pound of the dog's body weight. A dog who weighs six pounds would need only 2.7 mg of nitenpyram. The smallest tablet of Capstar delivers 11.4 mg of nitenpyram. You could give the dog a quarter of a tablet (2.8 mg) with equal benefit and less risk.*

of a soft chew. Bayer suggests that the ideal or target dose of imidacloprid is 0.34 mg/lb (0.75 mg/kg). Advantus is offered in two dosage sizes: a chew containing 7.5 mg of imidacloprid, meant for dogs weighing from four to 22 pounds, and a chew containing 37.5 mg of imidacloprid, meant for dogs weighing from 23 to 110 pounds.

Adverse reactions to advantus that may occur in dogs include vomiting, decreased appetite, decreased energy, soft stools, and difficulty walking.

Advantus is said to be safe when used concurrently with other products, including heartworm preventatives, corticosteroids, antibiotics, vaccines, and deworming medications.

A relatively small number of dogs and puppies are used in pre-approval studies to determine a product's safety. For this reason, we've never encouraged dog owners to rush to try newly approved products; dogs owned by early adopters, in essence, become the next generation of test dogs. For this reason, and because this is the first drug to use imidacloprid in this way, we'd recommend holding off on buying or using this product until more is known about its safety. 🐾

Nancy Kerns is the editor of WDJ.

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BOOKS AND VIDEOS

WDJ Training Editor Pat Miller is author of many books on force-free, pain-free, fear-free training, including:

- *Do Over Dogs: Give Your Dog a Second Chance at a First Class Life*
- *How to Foster Dogs: From Homeless to Homeward Bound*
- *Play With Your Dog*
- *Positive Perspectives: Love Your Dog, Train Your Dog*
- *Beware of the Dog: Positive Solutions for Aggressive Behavior in Dogs*

All of these are available from wholedogjournal.com

HOLISTIC VETERINARIANS

American Holistic Veterinary Medical Association (AHVMA)
PO Box 630,
Abingdon, MD 21009

Send a self-addressed, stamped envelope for a list of holistic veterinarians in your area, or search ahvma.org



What's ahead...

- ▶ **Group Classes**
How to get the most out of a group dog or puppy training class.
- ▶ **Search, Rescue, Model**
What search dog training has to offer "regular" dog owners.
- ▶ **Be a Choosy Chooser**
Do you know the best way to select your next dog? If you know, will you follow the guidelines, or just let your heart decide?
- ▶ **Collared!**
What to look for in everyday and specialty collars, and collar safety basics every owner should know.
- ▶ **Canned Food Review**
Our annual look at what's best and what's new in wet foods.
- ▶ **Cleaning Fleas Away**
Flea control step one.

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