The Whole



Dog Journal

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A monthly guide to natural dog care and training

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The Whole Dog



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EDITOR'S NOTE 🗳



New Feature

In-depth information you can't get anywhere else.

BY NANCY KERNS

n the facing page, you'll find the first installment of what is planned as a regular column in WDJ: Pet Food Profile. I've had the privilege of touring lots of dog food manufacturing plants over the years, and have learned a lot in the process. I'd like to start sharing more information about the companies I've been invited to visit, and try to describe what makes each company unique from the others. Who owns these companies? How large are they, compared to their rivals? What is their mission, their identity? Where do they make their products? Where are the products sold, and how are they marketed?

The purpose of the column is not to review their foods, or tell you what foods you should feed to your dog. Instead, I'd like to help you distinguish the companies from their competitors, and educate you a bit more about pet food manufacturing. The actual process of mixing and cooking (extruding, baking, or canning) dog food is actually quite simple. What varies quite a bit is everything else: Where do the ingredients come from, what form are they in, and how are they stored? How long are they stored? What sort of manufacturing plant are the foods made in, and how is the process overseen so that mistakes in measuring the ingredients don't happen? What about sanitation? Storage?

I'll get into all of this minutiae over time, as I take a close look, one by one, at the companies that make the foods that appear on our "approved dog food" lists. As the series develops, I'd welcome any questions you have about dog food manufacturing, or about specific companies. I'll do my best to answer your questions, or to get the answers for you.

Speaking of questions, I received lots of questions and comments three years ago when I wrote an editorial about my and my dogs' experiences with rattlesnakes. I indicated that while I live in an area where these snakes are

common, I have not and would not even consider participating in a snake avoidance training "clinic" that involved shocking my dogs with a shock collar. A few people praised my decision, but many accused me of putting my dogs' lives at risk.

I don't just blindly walk anywhere and let my dogs do anything they want when we walk on the trails! I avoid certain trails at certain times of the year, especially late summer (when the baby rattlesnakes are born and plentiful); I watch my dogs closely; and I practice all sorts of snake-avoidance behaviors with them daily – things like leave it, back, wait, and come - so if we do happen to see or hear a rattler, I can quickly direct them away from the snake.

I'm pleased to report that there are now a number of trainers who teach snake-avoiding techniques without shock; two are profiled on pages 10-11. The author of that profile, long-time contributor CJ Puotinen, also offers a wealth of information about venomous snakes, treatment for snake bites, and snakebite "vaccines," starting on page 5.

Rounding out this late-spring issue are articles on protecting your dog from foxtails, a review of canine first-aid kits, and more.

MISSION STATEMENT: WDJ's mission is to provide dog quardians 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.

Champion Petfoods

This Canadian company makes highquality dry foods with lots of fresh meat.

BY NANCY KERNS

hampion Petfoods is a privately held company that makes high-protein dry dog foods with a high inclusion of meat, much of it fresh. The company calls its guiding principle "BAFRINO," an acronym that stands for "biologically appropriate, fresh regional ingredients, never outsourced." As of this writing, all of Champion's dry foods are made in its own manufacturing plant in Morinville, Alberta, though the company is currently building a second dry food manufacturing plant in Auburn, Kentucky. Champion also manufactures freeze-dried foods at its own plant in Oakville, Ontario.

When I started researching and writing about dog food 18 years ago, I was told by many pet food company representatives that dry dog food couldn't be made with a meat inclusion of more than a third or so. In other words, the food couldn't contain much more than about 30 percent animal products; any more meat in the food, I was told again and again, and the manufacturer risks having the product "gum up" the extruders – the equipment that cooks the food.

I suspect this was an oversimplified explanation meant to rationalize the companies' carbohydrate-heavy formulas of the past. As animal nutrition studies have shown that higher-protein diets are not harmful for dogs (as thought in decades past), and owners have found them to be beneficial for all sorts of dogs,

diets that contain higher amounts of animal protein have become increasingly popular – and *somehow*, pet food makers have found ways to get their extruders to work with increasingly higher and higher inclusions of meat in their formulas.

I'm not aware of any company that is currently using higher percentages of meat in their dry dog foods than Champion, though; it's actually become an integral part of the company's identity and mission. More than 30 different types of meat are delivered to Champion's plant, with 10 or 11 semitrucks full of meat arriving daily, six days a week. The majority of these meats are fresh; some meat meals are used, but no frozen meats are included. The fresh meats arrive to the Champion plant in refrigerated tubs of meat "slurry," preground by Champion's meat suppliers.



Orijen is Champion Petfood's flagship line, with high meat inclusions and high protein levels. All seven of the Orijen foods are grain-free.

INGREDIENT SOURCING

Champion puts more emphasis on its ingredient sources than any other company I've observed. Company representatives take pride in their close relationships with their ingredient suppliers – and in fact, many of those suppliers appear (with their consent, of course) in Champion's advertising, packaging, and promotional materials. Champion's marketing materials feature photos and video of fishermen bringing in the catch, farmers harvesting fresh herbs, and ranchers moving their cattle, bison, and "wild boars" from pasture to pasture – and the individuals and their agricultural businesses are identified, so these relationships can be verified by anyone.

This strategy runs counter to the more-common practice in the pet food industry of refusing to disclose ingredient sources. It's a tad risky, because any adverse events that strike an ingredient supplier could cause concern over Champion's products - whereas, if consumers don't know where a company gets its ingredients, they have no basis for worrying about a specific company's food. Champion researches and audits its ingredient suppliers frequently, and makes them aware that the reputation of the companies on both sides of the relationship are intertwined. Many of the suppliers sell as much or more of their products for human consumption; none of the companies want bad press! Champion trusts its suppliers to provide top-quality, safe ingredients, and in turn, the suppliers trust Champion to manufacture safe, healthy foods that won't make dogs sick or get recalled.

Maintaining these close relationships is manageable because of the part of Champion's mission statement that addresses "fresh, regional ingredients." All the major ingredients in Champions' foods are sourced as locally as possible – from Canada or the U.S. Of course, some of the fresh fruits and vegetables used in the foods are not available yearround in the far north, and have to be procured farther afield, but the quality control processes are the same.

Champion is developing new formulas, to be produced in its Kentucky facility, starting in 2016, that will contain



Fresh, refrigerated ground meat "slurry" is about to be mixed into a batch of dog food.



Fresh fruits and vegetables enter a grinder at Champion's produce supplier; this, too, is delivered to Champion in a slurry (inset).

ingredients that are sourced close to the new location.

ORIGINAL LINE: ACANA

Champion has two distinct dry food product lines, and while both are formulated according to the company's BAFRINO ethos, they are nevertheless significantly different.

Acana is the name of the line of foods that Champion first produced about 30 years ago. Company founder Reiner Muhlenfeld had a background in feed stores, and began producing a privatelabel dog food to sell as a store brand. Though Acana has been updated and reformulated throughout the years, it has always been formulated with locally sourced ingredients. Today, there are three sub-lines made for the Acana label: Classics, Regionals, and Singles.

- The nine Classics formulas are made with a 55 percent to 65 percent meat inclusion; chicken meal (not a fresh meat) is the first ingredient in each variety, with smaller yet significant amounts of fresh meats and fish and whole eggs contributing to the total inclusion of meat (and adding flavor). Oats comprise the foods' major carbohydrate source. Each food is formulated to contain 32 percent protein and from 10 percent to 24 percent fat (depending on the variety). (Note that all protein and fat percentages given are minimums; the "actual amounts" may be higher.)
- There are four Acana Regionals foods. These contain 60 percent meat, and each variety's ingredient list is topped by a different fresh meat, with a meat meal in the second position on the label; other fresh meats are also included in each formula. All of the products in this line are grain free; the carbohydrate sources

used include peas, lentils, field beans, potatoes, sweet potato, pumpkin, butternut squash, and parsnips, depending on the formula. Each product contains 17 percent fat and 31 to 33 percent protein (depending on the formula).

■ Champion offers three Acana Singles foods, each made with a single animal protein source. Each variety contains the same animal protein (pork, lamb, or duck) in meal and fresh form, with fat from the same species added separately. These foods are also grain-free, with the meat comprising 50 percent of each formula and 50 percent comprised of fruits and vegetables. Peas, chickpeas (a.k.a. garbanzo beans), and pumpkin are the carbohydrate sources. Each product has a protein of 27 percent and 15 percent fat.

Some sort of fish appears on the ingredient list of every Acana food. Champion sources some of its fish from freshwater lakes in Canada, and some (salmon, herring, and flounder) from the Pacific waters near Vancouver Island.

FLAGSHIP LINE: ORIJEN

Almost 10 years ago, Peter Muhlenfeld (the company founder's son) developed a new product line, Orijen - which has since become Champion's flagship label, representing about 60 percent of the company's output. These foods contain even higher meat inclusions, higher protein levels, and are priced higher as a result. Champion says its Orijen foods are made with 75 to 90 percent meat inclusions. The ingredients list of each of its seven Orijen formulas are topped by a fresh meat, and contain a number of other fresh meats, though all seven also contain one or two meat meals. The Orijen line includes two puppy foods, with 38 percent protein and 16 percent

(large breed puppy) or 18 percent (regular puppy) fat. Its senior food also contains 38 percent protein, with 15 percent fat. Its four adult foods all contain 38 percent protein and 18 percent fat.

More recently, Champion began making a line of Orijen Freeze Dried foods, which it makes in its own facility. All three products in the line contain fresh meats (no meat meals) that are ground with fresh bone (as a mineral source). They contain a minimum of 36 percent protein and 34 percent fat.

NOTES

- Champion does not use a standard vitamin/mineral mix in its foods, but adds only those nutrients that are needed to make the finished product meet "complete and balanced" standards. This eliminates needless nutrient overages.
- The company describes its extrusion process as a "slow cook" at "lower temperatures." While this is technically true, the difference is just a few seconds and a few degrees in the extruder. The difference is necessitated by the formulas' higher animal protein and fat content.
- Water does not appear on the ingredient label of dry foods, even though most manufacturers use water to help mix the food before it's extruded. No water is added to Champion's mixtures, because so many of their ingredients are freshly ground and high in moisture already.
- As a privately owned company, Champion is under no obligation to disclose annual sales figures or even tonnage of product manufactured annually. The company has grown exponentially in the past decade, but its principals admit that it is limited by its ingredient procurement standards. 🗳

Don't Get Rattled

How to prevent (or, failing that, how to treat) bites from poisonous snakes, including rattlers.

BY CJ PUOTINEN

ew medical emergencies are as terrifying as snakebites. They happen fast and they're dangerous. Will your dog survive? Knowing what to do and acting immediately can save your pet's life.

Thousands of dogs are bitten in the U.S. each year by venomous snakes. Ninety-nine percent of the snakes that bite them are pit vipers, whose *Crotalidae* family includes Copperheads, Cottonmouths (Water Moccasins), and more than a dozen species of rattlesnake. The remaining one percent are Coral snakes, native to the American Southeast and Mexican border.

Rattlesnakes account for most U.S. snakebite-related deaths in humans and domestic animals. According to the Animal Medical Center of Southern California, dogs are 20 times more likely to be bitten by venomous snakes than humans are, and 25 times more likely to die as a result. Snake bites are lifethreatening, painful, expensive to treat, and can cause permanent damage even when the animals survive.

Thanks to his owners' quick action nine years ago, Gizmo, a Yorkshire Terrier, recently celebrated his 15th birthday. One August night, as Micheline Campbell of Belt, Montana, and her husband were getting ready for bed, they let Gizmo outside one last time for the night. "A few minutes later, we heard him yelp and went to see what was wrong. A baby rattlesnake coiled

up on the patio had just bitten Gizmo on his leg."

Campbell's husband, Mark, put a garbage can lid over the snake and brought Gizmo into the house. "Within two minutes he started whining and within five minutes he was yelping like he was being beaten," she says. "We called our veterinarian, Dale Schott, DVM, who lives just a mile away. He told us to bring Gizmo right over. As we were transporting him, Gizmo lost consciousness. This was about 10 minutes after being bitten."

Fortunately, Dr. Schott keeps a supply of antivenom (also known as antivenin) on hand. This antidote is administered intravenously or, in some cases, injected into muscle close to the bite location.

Dr. Schott mixed the antivenom with distilled water to hydrate it. "During the mixing, which seemed to take forever, Gizmo lay motionless on the table," Campbell says. "Both Mark and I were sure he had died. Dr. Schott shaved a spot on Gizmo's front leg to find a vein and then injected the antivenom. Within a few seconds, Gizmo started showing signs of life, and within about 15 minutes, it was as though he had never been bitten. The vet gave him a shot of Benadryl and kept him overnight. When we picked him up in the morning, he was fine."

Gizmo's only lasting symptom is that he licks his leg every day.

Gizmo was lucky to have received veterinary attention and antivenom so quickly. Pit vipers give birth to live babies whose fangs and venom help defend them against predators. The snake that bit Gizmo was very young (rattlesnakes are generally born between August and October). "We learned that baby rattlesnakes are more potent than adults because when they bite, they release all of their venom," says Campbell. "An adult snake releases venom according to the size of its prey." In addition, the venom of young snakes may contain more neurotoxic elements.

IT'S AN EMERGENCY!

The bite of most pit vipers is called "hemotoxic," meaning that its venom disrupts the integrity of blood vessels. As a result, dramatic swelling, blood loss, and uncontrolled bleeding can quickly lead to shock and death. Up to one-third of a dog's blood supply can be lost to tissues within hours, causing a severe drop in blood pressure.

Most dogs are bitten on the face or leg. Facial bites can be serious if swelling closes the throat and impairs the dog's ability to breathe, but in general, bites to the face or legs are considered less dangerous than bites to the torso, especially the chest or abdomen, where they can directly affect the body's organs.

As the Merck Veterinary Manual explains, "Rapid examination and appropriate treatment are paramount. Owners should not spend time on first aid other than to keep the animal quiet and limit its activity. The following commonly touted measures are ineffective and can be potentially harmful: use of ice, cold packs, or sprays; incision and suction; tourniquets; electric shock; hot packs; and delay in presentation for medical treatment (waiting until problems develop)."

There are more than a dozen species of rattlesnakes, and several other pit viper species in North America; in fact, only four of the United States are free of venomous snakes (Alaska, Hawaii, Maine, and Rhode Island). This is a Northern Pacific Rattlesnake (Crotalus

oreganus). © AMWU, DREAMSTIME.COM

According to Animal Pharm News, published by the University of California Davis Veterinary Medical Teaching Hospital, it's important to:

- Remain calm.
- Wash the bite with clean water and soap.
- Keep the animal quiet.
- Immobilize the bitten area and keep it lower than the heart.
- Seek veterinary help immediately, even if you are not certain that it is a rattlesnake bite.
- Call an emergency veterinary clinic ahead so they can prepare.
- Remove restrictive collars, choke chains, etc., before swelling begins.
- Unless the bite is on the head or face, consider applying a muzzle to protect anyone who handles the dog, as extreme pain can cause any dog to bite.

ANTIVENOM

The terms antivenom, antivenin, and antivenene all refer to a biological product used in the treatment of venomous bites or stings. It is created by milking venom from a specific snake, spider, or insect, then diluting the venom and injecting it into horses, sheep, rabbits, or goats. The injected animal's immune response produces antibodies against the venom's active molecule, and these antibodies are extracted from the animal's blood and freeze-dried. Antivenoms sold internationally conform to the World Health Organization's standards of pharmacopoeia.

The term antivenin, which is derived from the French *venin*, meaning poison, has been in use since 1895. In 1981, the World Health Organization adopted the English terms venom and antivenom, replacing the terms venin and antivenin, or venen and antivenene. Antivenoms have been created for dozens of poisonous snakes, spiders, and scorpions around the world.

Rattlesnake antivenom has been a miracle cure for many American dogs, but for the treatment to be successful, it has to be the right product and it has to be administered in time. Antivenom is

considered most effective if administered within four hours and less so after eight hours, but it is still recommended as a treatment for severe symptoms within 24 hours. However, much depends on the bite's location, the dog's size and overall health, and the venom's toxicity. Rattlesnakes tend to be most toxic when very young, agitated, angry, or targeting prey.

The antivenom *also* has to be available, and it often isn't. Many veterinary clinics, even in areas inhabited by rattlesnakes, don't carry it. This is because antivenom is expensive, has to be stored at a stable room temperature, and has a limited shelf life. Cost is an important factor, for not everyone can afford the treatment.

Several antivenom products are available to veterinarians, including:

- ACP from Boeringer Ingelheim **Vetmedica** is currently the only USDAapproved antivenom for use in veterinary medicine. While considered effective against the hemotoxic effects of all North American Rattlesnakes, Copperheads, and Cottonmouths, it is not effective against the Mojave Rattlesnake's neurotoxins. The cost to veterinary clinics averages \$300 to \$500 per vial. ACP's manufacturer recommends between one and five vials per patient, depending on the dog's size, condition, and symptoms, and in some cases higher doses are needed. Even when only one or two vials of ACP are sufficient to slow or halt the progression of clinical signs, the cost to clients can be prohibitive.
- CroFab[®] is an antivenom from sheep exposed to venom of the Eastern Diamondback, Western Diamondback, Mojave Rattlesnake, and Cottonmouth. This antivenom is more rapidly reconstituted and about five times more potent at neutralizing pit-viper venoms in animal models than ACP. Its small molecules are rapidly cleared from circulation, and it is well tolerated by patients allergic to horse-derived products. CroFab is expensive. Depending on the distributor, a veterinary clinic's cost may be \$1,000 per vial or more. One prospective veterinary clinical trial reported that most dogs required 1.25 vials on average.
- **Antivipmyn®**, an equine serum manufactured by Bioclon Institute in Mexico, is considered highly effective against North American pit vipers, but repeated doses may be needed. This antivenom

tends to be significantly less expensive than others. It requires a USDA importers' license and permission from the State veterinarian prior to purchase.

- Another Mexican product, **Crotalid Antivenom**[®], is derived from horses exposed to the Tropical Rattlesnake and Fer-de-lance. A retrospective analysis of 180 dogs treated with this antivenom in Arizona found that one vial was sufficient to improve clinical signs in most patients, and it was shown to resolve both neurologic and myotoxic effects of rattlesnake bites. An experimental safety trial in healthy dogs demonstrated no acute or delayed reactions when up to six vials were administered over one hour. This antivenom is available for veterinary use with a USDA import permit. The average cost to veterinarians per vial is \$300.
- **Coralmyn**°, manufactured in Mexico with venom from the Black Banded Coral snake, has been shown to neutralize Eastern Coral snake and Texas Coral snake venom. This antivenom is available for veterinary use with a USDA import permit. An antivenom for the Coral snake went out of production in 2006; the snake is so rare that its antivenom wasn't profitable.

Allergic reactions to the serum components of antivenoms are less common in dogs than humans, but they can occur. In 2005, the Journal of Veterinary Emergency and Critical Care reported the first known case of antivenom-associated serum sickness in a dog. The patient, a Boxer, had been bitten by an Eastern Diamondback Rattlesnake and was in shock and suffering blood loss.

Three days after treatment with ACP, the dog developed an allergic reaction with a fever, limb edema, and eye swelling, symptoms that continued through the sixth day of hospitalization. As physicians do for human patients, some veterinarians test for serum allergies with a skin test before administering antivenoms, but their results are not always accurate.

CONTROVERSIAL VACCINE

Researchers at Red Rock Biologics developed a rattlesnake vaccine, Crotalus Atrox Toxoid, that can be given to horses and dogs in advance of a trip to rattlesnake country or before rattlesnakes become

active (generally in spring and summer), in an effort to reduce the adverse effects of rattlesnake bites and allow extra time for conventional treatment.

The venom used in its production came from Western Diamondback Rattlesnakes, so it is considered most effective for that species, but it is assumed to protect against related venoms, such as the Western Rattlesnake (including the Prairie, Great Basin, Northern, and Southern Pacific varieties), Sidewinder, Timber Rattlesnake, Massasauga, and Copperhead. Partial protection may be obtained against Eastern Diamondback Rattlesnake venom. The vaccine does not protect against venom from Cottonmouths, Mojave Rattlesnakes, or Coral snakes. In 2012, Red Rock Biologics began developing a vaccine for the Eastern Diamondback and similar species.

According to the manufacturer, "As part of its licensing process, this vaccine was shown in dogs to generate protective antibodies against rattlesnake venom. Protective antibodies function by neutralizing rattlesnake venom. Dogs with protective antibodies are reported to experience less pain and have a reduced risk of permanent injury from rattlesnake bite. Veterinarians typically report that vaccinated dogs bitten by rattlesnakes experience less swelling, less tissue damage and a faster recovery from snakebite than unvaccinated dogs.

"Several factors may influence antibody effectiveness against venomous snakebite. Snake-related factors include the snake species, age of the snake, and amount of venom injected. Dog-related factors include location of the bite, how well the dog responded to the vaccine, and the length of time since the last dose of vaccine was administered."

It takes four to six weeks for the vaccine to produce maximum protection, and that protection continues for approximately six months. The manufacturer recommends an initial vaccine followed by a booster dose one month later and an annual booster after that. In some cases, anticipated rattlesnake exposure or the dog's size require two or even three booster shots per year. Search and rescue dogs, hunting dogs, small dogs, unusually large dogs, or dogs living in high-density rattlesnake areas where snakes are active year round may benefit from booster shots every four months.

The rattlesnake vaccine is considered safe for use in pregnant and lactating dogs, puppies as young as four months, and healthy older dogs. Side effects reported by veterinarians have typically been few and mild. Less than one percent of vaccinations result in a mild swelling at the injection site.

How effective is the vaccine? That's a good question. The manufacturer recommends treating every snake bite as a medical emergency, for even vaccinated dogs may need antivenom and other conventional care. No objective studies testing the vaccine have been published. Not all species of snakes are well covered by the vaccine, individual patient responses vary, the amount of venom in a bite might overwhelm a vaccinated dog's immune response despite high titers, the dog might receive multiple bites with the same result, or the bite might be near vital organs or a vein. In addition, the vaccine does not protect against tissue necrosis or infection.

Because of the vaccine's cost, questionable efficacy, and the fact that vaccinated and unvaccinated dogs receive the same veterinary care when bitten, many veterinary hospitals do not recommend it for their canine patients. At the same time, for dogs at high risk in areas where immediate treatment is impossible, the vaccine might delay the venom's effect so that the owner can reach a veterinarian in time to save the dog's life or decrease the venom's effects.

CONVENTIONAL CARE

Because most deaths and adverse reactions to rattlesnake bites result from blood loss causing circulatory collapse, intravenous fluids (sodium chloride or colloid fluids) are given to maintain blood pressure. Oxyglobin, which is chemically stabilized bovine hemoglobin used to treat anemia in dogs and which has fewer risks of causing clotting abnormalities, can be given instead. In rare cases, if uncontrolled bleeding is life-threatening, blood transfusions may be needed.

In addition to fluid therapy, antihistamines and steroids can help prevent further swelling and anaphylactic (allergic) reactions. Because of increased mortality rates reported in human patients, steroids are controversial, but they may help patients with recurrent bites or symptoms of serum sickness.

Antibiotics are used to prevent secondary bacterial infections of the bite

APPRECIATING RATTLESNAKES

Rattlesnakes fill most of us with fear and anxiety. For many, the only good snake is a dead snake.

But rattlesnakes deserve our respect for being among the earth's most efficient and specialized predators. Without snakes keeping their population in check, the rodents and other prey that they consume can be serious pests. Snakes play an important role in maintaining the balance of nature. Biologists consider rattlesnakes, which exist only in the Western hemisphere, to be the newest or most recently evolved snakes in the world.

Rattlesnakes also deserve our appreciation because, for the most part, they are shy and avoid confrontation. According to the World Health Organization, venomous snake bites are an important public health problem in rural Africa, Asia, and Latin America. A recent worldwide study estimates that at least 421,000 and as many as 1,841,000 humans are bit by venomous snakes each year, resulting in 20,000 to 94,000 human deaths. The greatest number of bites and fatalities occur in South Asia, Southeast Asia, and sub-Saharan Africa.

In contrast, according to the (U.S.) Centers for Disease Control and Prevention, 7,000 to 8,000 Americans receive venomous snake bites per year, and, on average, only five of them die. Millions more dogs in the U.S. are hit by cars and euthanized in animal shelters than are ever bitten by snakes.

By learning about rattlesnakes, adjusting our property and behavior, and training our dogs well, we can reduce the risk of rattlesnake bites and more safely coexist with them.



site. Because venom can spread rapidly in an agitated patient, pain killers such as fentayl or diazepam may be given to relieve severe pain and agitation. Antiinflammatories are not used because they may worsen bleeding problems.

An estimated 20 to 25 percent of rattlesnake bites to dogs are "dry," meaning they don't contain venom; another 30 percent produce mild local symptoms of pain and swelling; 40 percent are severe; and approximately 5 percent of rattlesnake bites are fatal to dogs.

Follow-up care includes at least eight hours of observation, for mild bites can become severe and dry bites can become infected. The wound should be rechecked within two or three days, at which time follow-up bloodwork can be performed.

Provide plenty of fluids, and return to the veterinary clinic if the dog's urine decreases in quantity or becomes dark and cola-colored, if swelling worsens, or if the dog develops dark, tarry stools, new bruising, or signs of wound infection, such as redness, heat, pus drainage, or extreme tenderness.

Do not administer anti-inflammatory drugs such as carprofen, meloxicam, or aspirin for at least two weeks after a snakebite. Limit the dog's physical activity and avoid surgery or dental work during that time. Return if the dog develops a fever, rash, itching, joint pain, or swollen lymph nodes within a month.

SNAKE BITES AND HOMEOPATHY

Before he became interested in homeopathy, Douglas Falkner, MD, MHom,



was a Level I Trauma Center emergency physician. "Emergency physicians confront and successfully manage lifethreatening problems on a daily basis," he says, "but most homeopaths, at least in the U.S., rarely have an opportunity to test the efficacy of homeopathy when accident, injury, or illness brings one toward the brink of death."

Dr. Faulker was camping in Oregon's remote high desert, when a rattlesnake bit Bob, a fellow camper's Border Collie-Lab mix, on the right side of his forehead. Bob lay on his side, with the right side of his face dramatically swollen, his right eye completely shut, his swollen jowl sagging, and heavy drool hanging from the side of his mouth. The lightest touch made him yelp in pain. His owner, Don, decided that because the nearest veterinary clinic was far away and it was late in the day, transporting the dog was not an option.

Dr. Falkner checked his collection of homeopathic remedies and selected two that he thought would help: *Lachesis* (potentized venom from the South American Bushmaster, or Suruku, the world's longest pit viper) and Cedron (a potentized plant known as "Rattlesnake Bean"), both in a 30C potency.

He diluted each of the remedies in a cup of water, labeling them to avoid confusion later, and instructed Don to alternate doses, giving a spoonful of one or the other every five minutes for four doses of each altogether.

Half an hour later, Bob was moving more, wagging his tail, and looking up. His swollen right eye was beginning to open. Then Dr. Falkner suggested



On a camping trip in a remote location, Bob was bitten by a rattlesnake on the right side of his head. His face swelled dramatically (first photo) and he was in extreme pain. One of his owner's camping companions was a homeopath, Douglas Faulkner, MD, (far right), who gave Bob's owner some homeopathic remedies and instructions to use them throughout the night. By the next morning, Bob was almost completely recovered (middle photo). Dr. Faulkner recommends conventional medical care for snake bites, but was happy to have his homeopathic kit for this wilderness emergency.

alternating doses every 15 minutes, and when he returned after an hour, Bob stood to greet him. "His face was still swollen and he was drooling," he says, "but Bob was becoming more animated. He was acting more dog-like and less ill. His eye was now half visible. When I patted him, he didn't yelp like before. The pain seemed significantly diminished."

Don continued alternating doses every half hour, then during the night gave Bob one or two doses of each. The following morning when Dr. Falkner went to check on him, Bob ran to greet him with a wagging tail and both eyes wide open, showing no signs of illness. "There was still some boggy edema under his jowls," he says, "but it seemed to have no negative impact. He was clearly well and thriving!"

Bob had already eaten breakfast, consumed large amounts of water, and eliminated on his normal schedule. Don weaned Bob off the remedies by extending the time between doses for another day. "When the patient responds quickly and well," says Dr. Falkner, "you can extend the treatment by a couple of doses and then stop. Use common sense and gauge the speed of improvement. A dog that improves quickly can stop quickly, while one that recovers slowly should disengage slowly."

Although Bob had a speedy recovery, Dr. Falkner advises that it is always prudent to seek conventional medical care in emergencies where bites from venomous animals can cause serious injury or death. However, such options



ARE YOU SURE IT WAS A RATTLESNAKE?

Snakes and dogs are a bad combination in any circumstances, but it's helpful to know what venomous snakes look like, both where you live and where you might be traveling.

All of North America's pit vipers (Copperheads, Cottonmouths, and rattlesnakes) have a broad, triangular head and narrow neck. Their eyes are slanted, not round, and their bodies tend to be thick and stocky, not slender. Their mouths can open wide with formidable looking fangs. The "pits" for which these vipers are named are heat-sensing hollow areas between the eyes and nostrils.

Most (though not all) rattlesnakes have rattles, and their sound is a distinctive buzzing. Want to hear it? Search online for "rattlesnake sounds" and you'll find dozens of examples.

The rattles are actually modified scales with a bony core. Each time a rattlesnake sheds its skin, a new "button" is added to the rattle. As a result, rattles show the number of times the animal has shed its skin. Most rattlesnakes shed their skin three to five times per year, and some even more often, depending on their health and growth rate.

One or two puncture wounds, acute swelling, bleeding, and pain are the most common signs of rattlesnake bites. Dogs investigate the world with their noses, so it's no surprise that their faces are the most common target. Of 67 canine patients treated between 1994 and 2005 at the UC Davis Veterinary Medical Teaching Hospital, all were bitten on the face or legs. (During that same period the hospital treated 5 cats, 3 llamas, 15 horses, 1 sheep, 1 goat, and 1 parrot for rattlesnake bites.)



Signs of a snake bite include distinctive puncture wounds and acute swelling, as seen on this dog, who was photographed at an emergency clinic. He was bitten just 30 minutes prior and already can't fully open his eyes or breathe through his nose.

are not always available, as in a wilderness setting like this one.

After his report of Bob's rattlesnake bite appeared in a 2013 holistic health magazine, Dr. Falkner heard from two dog owners who reported that the same remedies, administered as described, worked perfectly for their dogs' venomous snake bites. "While there is typically no universal remedy in homeopathy, as individualization is the rule," he says, "there are circumstances where a specific remedy will work most of the time. Our tradition states that symptoms are the guideposts to treatment, and most snake bites will start off causing similar symptoms. The size or breed of the dog makes no difference at all. Lachesis and Cedron are the two remedies I would carry with me and use first off in the event of such an emergency."

There are other homeopathic remedies available for snake bites, including *Crotalus horridus*, the Timber rattler, and *Crotalus cascavela*, a Brazilian rattlesnake. In reply to our questions, Dr. Falkner agreed that a homeopathic *Crotalus* remedy could work well for rattlesnake bites, assuming the symptoms of the remedy agree with the symptoms of the patient.

OUNCE OF PREVENTION

The first rule of common-sense bite

prevention is to understand snake behavior and use that knowledge to avoid encounters. You and your dog are most likely to meet a rattlesnake while hiking, climbing, camping, or just walking on a trail. If you live in rattlesnake country, it can happen in your own backyard!

Rattlesnakes tend to be most active during summer months, but spring and fall are dangerous throughout most of the U.S., and in mild climates (Southern California, for example, or the Southwest, or wherever temperatures stay above freezing) they can be active at any time. Their favorite temperatures are between 70° and 90°F (21° to 32°C).

Because reptiles are unable to control their body temperatures, snakes depend on their environment for comfort and mobility. In cold weather they seek warmth and in hot weather they seek shade and cooler ground. On sunny mornings you might find rattlesnakes warming themselves on asphalt or driveways, but encounters are more likely to occur around rocks, shrubs, brush, woodpiles, or wherever snakes can hide.

While walking where rattlesnakes are known to be, keep your dog on a short leash and stay on well-defined trails, avoiding tall grass, brushy areas, fallen logs, and abandoned buildings. Rocks, holes, ledges, and brush are favorite hiding places for rattlesnakes. Don't let your

dog explore holes or dig under rocks, and never let your dog examine a dead snake, as it can still be venomous.

If you notice a snake, back away quickly and quietly. Keep in mind that a rattlesnake's striking distance is half to two-thirds of its body length, and it strikes faster than the human eye can follow. Always keep a considerable distance between a snake and your dog. Be careful around water because rattlesnakes swim, and anything that looks like a long stick might be a snake.

Rattlesnakes feed on rodents and other small animals, and whatever you can do to remove their food supply will make your property less attractive to them. Below-ground fencing, frequent mowing, rodent-control measures, and wire mesh that blocks small holes or cracks under doorways and in garages and other buildings will encourage snakes to depart. Store firewood away from your house, plug holes in the ground, and limit birdseed waste, which can attract rodents.

Experts advise against using caustic lye or products such as gels, powders, and ropes that are advertised to deter snakes as these are ineffective and potentially harmful to pets and children.

See "Snakebite Resources," page 9, for more information on snakebite products.

Snake Aversion Without Shock

Reinforcement-based techniques are effective for teaching dogs to avoid snakes and other dangers, without unwanted side effects.

BY CJ PUOTINEN

ositive training methods focus on rewarding activities, and they're fun for dogs and handlers. But mention rattlesnakes and many dog owners worry that positive reinforcement isn't enough. In order to remain safe around rattlesnakes, some say, your dog may need aversion training with an electronic (shock) collar.

In conventional aversion training, dogs receive uncomfortable or painful electric shocks when exposed to whatever their owners want them to avoid. In theory, the dog will associate the sight, smell, or sound of a rattlesnake or other danger with the pain of a shock and immediately run away.

"But that doesn't always happen," says Jamie Robinson, founder of Seize the Leash in Tucson, Arizona. "One never knows what the dog is actually associating with the shock when it happens. I know of several dogs here in Tucson who now attack rattlesnakes after 'snake breaking,' since snakes were associated in their minds with the pain received during training. That association caused these dogs to attack rather than run in order to avoid the associated pain. Another dog is reportedly terrified of oscillating sprinklers because they sound like a snake's rattle."

While the best aversion trainers



introduce shock collars gradually and with concern for the dog's age, size, history, and personality, no one can guarantee that any aversion-trained dog will never be harmed by whatever it was trained to avoid. Accidents happen. In addition, canine responses to snakes vary. Some dogs are naturally cautious and reluctant to explore new situations; others are eager to inspect, smell, and taste the unfamiliar; and some breeds are more likely than others to chase or attack a snake, poisonous toad, or moving object.

A BETTER WAY

Is it possible to teach a dog to avoid snakes without using a shock collar? Like Robinson, a growing number of trainers say YES! Their goal is not to produce a dramatic reaction in which the dog recognizes a rattlesnake and runs or jumps in the opposite direction; their goal is for the dog to recognize the snake (or whatever it has learned to avoid) and stay away.

Robinson's approach, which she calls Structured Game Training, combines play with purpose, cooperation, and goals. "If you really want a dog to stay away from something," she says, "you have to make it the dog's choice, not just a conditioned response."

Her book Snake Avoidance Without *Shock* provides detailed instructions for playing games lasting five minutes or less, no more than one game per day, for six weeks. Its themes include self-control, motivation, "leave it," maintaining close proximity to the handler, "stay" (in a variety of positions), developing a reliable recall, distraction training, perfecting an emergency distance sit/stay, drop on recall, odor identification, targeting, "back up, it's dangerous," proofing, and more. Some are familiar obedience behaviors and others completely different, but all work systematically to improve dog/handler communication and canine safety.

Does your dog chase after squirrels, rabbits, cats, toxic toads, lizards, porcupines, skunks, cars, or bicycles? Do you live around dangerous plants, like spiny cactus or poisonous mushrooms? Does your dog vacuum the floor, picking up cookie crumbs, ant traps, prescription drugs, or chocolate? Maybe your pup

swallows chew toys and underwear. Our dogs risk life and limb every day, even without the threat of poisonous reptiles, and Robinson's exercises can help any dog avoid all of those problems.

When it's time to introduce rattlesnakes, she offers step-by-step instructions using fake snakes and the real thing, provided by a local herpetologist.

"The most important part of teaching snake avoidance does not involve humans," she says. "The dog must learn what to do when confronted with the sight, sound, and/or smell of a snake even when the human is missing. An estimated 85 percent of all snake bites to pets happen in their own backyard. The key to success in this type of training is that it's inherently easy and fun for both of you. If it isn't, it will be a source of stress."

Robinson's Seize the Leash training center in Tucson offers eight-week "Snake Avoidance Without Shock" workshops. She will soon offer classes in Clearwater, Florida, where she moved in March.

In California, trainer Pamela Johnson became interested in rattlesnakes when

she and her husband moved to a rural area. "In my opinion, teaching dogs to avoid rattlesnakes is the same as teaching them to do tricks or any other behaviors," she says. "I build a relationship and use management and common sense to keep dogs safe from all dangerous things, not just rattlesnakes."

Force-free aversion training can be practiced anywhere and at any time. "There isn't any fall-out or stress when using positive training methods," she says, "but it is not a quick fix. It requires commitment. For best results, you have to take the time to work with your dog."

Johnson teaches specific behaviors and skills using games and play. The relationship-building lessons include handler focus and attention, "settle on the go," body blocking (trained as a behavior and not by using force or intimidation), a variety of emergency collar-grab games, luring, targeting, leash-walking, impulse control, fun recall games, and stay games.

"I teach owners how to train their dogs to do a variety of tricks, agility skills, and canine-freestyle behaviors that are designed to move dogs away from rattlesnakes," she explains. "My goal is to

show others how to have fun with their dogs and at the same time teach their dogs life-saving skills. The main part of my program teaches dogs to recognize snakes, avoid them, and go to their owners. I introduce sight, sound, and scent by using remote-controlled snakes, fake snakes, snake sounds, and dead snakes (snake skin and snake feces)."

Johnson's Positive Rattlesnake Avoidance webinar is available from the Pet Professional Guild (see "Snakebite Resources, below). This July, her Positive Rattlesnake Avoidance Training and Safety Program DVD will be published by Tawzer Dog. "It is a complete guide to training the behaviors and games," she says, "and gives insight into rattlesnake behavior, teaches simple ways to tell the difference between venomous and nonvenomous snakes, answers questions about rattlesnakes, provides helpful tips on safety, and walks you through a variety of ways to make your backyard safe and rattlesnake-free." 🗳

CJ Puotinen, author of The Encyclopedia of Natural Pet Care and other books, is a longtime contributor to WDJ. She lives in Montana.

SNAKEBITE RESOURCES

INFORMATION RESOURCES

- Animal Medical Center of Southern California
 (310) 575-5656, animalmedcenter.com
- Banner Poison & Drug Information Center (800) 222-1222 or (602) 253-3334, bannerhealth.com
- University of California at Davis, Veterinary Medical Teaching Hospital. (530) 752-1393; vetmed.ucdavis.edu

ANTIVENOMS AND VACCINES

- ACP: Boehringer Ingelheim Vetmedica, Inc. (515) 955-4600 or (800) 821-7467; bi-vetmedica.com
- Antivipmyn and Coralmyn: Rare Disease Therapeutics, Inc. (615) 399-0700; ssanuita@raretx.com
- CroFab: BTD International, Inc. (888) 852-8542; crofab.com
- Crotalid: BioVeteria Life Sciences. snakeantivenom.com or bioveteria.com/antivenom.

Rattlesnake Vaccine Red Rock Biologics. (866) 897-7625; redrockbiologics.com

HOMEOPATHY

- **Douglas Falkner**, MD, MHom, Ashland, OR. Falkner School for Homeopathy, (541) 552-1400; thefalknerschool.com.
- Homeopathic remedies Lachesis mutus 30C potency and Cedron 30C potency are made by Boiron, Hyland, and other homeopathic manufacturers and are available in health food stores and online. For an introduction to veterinary homeopathy, see "How Homeopathy Works," WDJ December 2007.

RATTLESNAKE-AVERSION TRAINING RESOURCES

- Pamela Johnson, San Diego, CA. Force-free aversion training. (619) 888-3139; pamsdogacademy.com. In July 2015, Johnson's *Positive Rattlesnake Avoidance Training and Safety Program* DVD will be available from Tawzer Dog (208) 639-1321; tawzerdog.com. Also, Johnson's "Positive Rattlesnake Avoidance Training" webinar is available through the Pet Professional Guild, (413) 648-7246; petprofessionalguild.com.
- Jamie Robinson, Clearwater, FL. Aversion training without shock. (727) 686-4246, playyourwayobedience.com. Robinson's 8-week "Snake Avoidance Without Shock" classes and 2013 e-book, Snake Avoidance Without Shock, are available through Seize the Leash, (520) 751-7772; seizetheleash.com. Paperback version of Snake Avoidance Without Shock available at Iulu.com

How to Prevent a Bad Adoption

Thinking about getting a new dog? Read this first!

BY PAT MILLER, CBCC-KA, CPDT-KA

or the first time in several decades, my husband and I are actively seeking a dog to adopt. With our family pack at a long-time low of three dogs, all seniors, it's time to add a younger set of paws, but now that neither of us works at a shelter, it's not as easy to trip over a dog who speaks to our hearts. We now find ourselves having to actively *look* for one – a unique position for us, but one in which most normal, non-shelter/rescue humans are quite likely to find themselves. Having experienced in recent years an exponential increase in clients who adopted inappropriate dogs with significant problem behaviors – dogs who should never have been released by the shelter or rescue group – I know all too well how rocky the path to adoption can be these days. So, we're taking the advice we'd give to anyone else in our situation in order to prevent a regrettable adoption.

Yes, sometimes adoptions are bad – either for the humans, the dogs, or both. Over the past few years, I've seen a veritable parade of clients at my training center for consults regarding adopted dogs whose behavioral baggage was much big-

ger than their adopters had anticipated. Some clients worked through or learned how to live with their dogs' difficult behaviors. Others have decided the issues were more than they could handle, and returned or even euthanized their dogs.



Bad adoptions can traumatize entire families and cost everyone involved a lot of time and even money, especially when veterinary and/or behavioral consultations are needed. The stakes are very high! Here are some examples of some difficult adoptions made by people who consulted me afterward for help with their new dogs (names have been changed):

■ ARCHIE - An adult, neutered Labrador Retriever, Archie was adopted from a local Labrador rescue group by the owner of a construction company. Mark had owned Labs before, and wanted another dog who would ride well in his truck, one that he could take to work with him on construction sites and who could be his constant companion. Instead, he unknowingly adopted a dog with a prior bite history (rescue failed to inform him) who had been returned to rescue after at least three previous adoptions due to his aggressive behavior, who fiercely guarded resources, and who became so aroused by outside stimuli when riding in a vehicle that he would bite his new owner.

After our very sobering initial consult, Mark made the commitment to Archie to do everything he could to make it work. Mark assiduously implemented the protocols we agreed on, and despite being bitten several times, has made it work. He started leaving Archie home instead of taking him to construction sites, and then had to work through some mild isolation anxiety. He implemented counter-conditioning and desensitization protocols for Archie's resource-guarding and handling issues. Most important: He came to understand that Archie was acting defensively, not maliciously, and was able to stop taking personal offense at Archie's behavior. Archie has a home for life and Mark loves him dearly.

■ MAGGIE - A 7-month-old spayed Tibetan Terrier, Maggie was purchased from a breeder two weeks prior. Her new

Ideally, you will share your home with your new dog for the next 10 or more years, so make sure he's the dog you really, really want, not one you just felt really sorry for at the shelter. Make it a point to bring your adoption candidate into another part of the shelter, away from the barking dogs and kennel stress, so you can get a better idea of what she's like.

owner Carol had been my client years earlier with another dog, and she had done an outstanding job modifying that dog's dog-reactive behavior. The two of them had enjoyed a full life together, and a year after she lost that dog to old age, she was finally ready for a new dog.

Maggie was a *little* shy at the breeder's, but when Carol brought her home she discovered that Maggie was terrified of almost everything. The breeder clearly had not done an adequate job of socializing this pup, a problem compounded by the fact that the breeder kept her until she was more than six months old without appropriate exposure to normal real-world stimuli.

Carol made a valiant effort to decrease Maggie's fearfulness using counter-conditioning, desensitization, and confidence-building exercises (such as those seen in "Be Brave," WDJ September 2011), but ultimately decided the two of them would never have a fulfilling life together. With my support, she returned Maggie to the breeder, who tried to blame her for the dog's behavior (I had warned her this might happen). Finally, the breeder did take Maggie back (and did not refund her purchase price).

REX - A 2-year-old neutered male Rhodesian Ridgeback, Rex was recently adopted (sight unseen) from a Ridgeback rescue group on the other side of the country. His new owners, Jane and Bill, discovered that he was extremely shy, fearful of noises, humans, and other dogs – and in fact, was already on medication (fluoxetine) for his fearfulness.

Unfortunately, this was not at all what they had told the rescue coordinator they were looking for! They had wanted to adopt a dog who would play with their other Ridgeback, Trixie, a vigorous canine play pal. They had described Trixie's personality to the coordinator, who promised them that Rex was a perfect match. That was clearly not the case.

At the conclusion of our consult, Jane and Bill made it clear they were committed to keeping Rex despite the time-consuming fear-alleviating protocols we discussed, and knowing he



may never be the playmate they wanted for Trixie. Recent communication with them determined that his fear of noises and humans is improving, but very slowly. He still does not play with other dogs.

ADOPTER BEWARE

These are just a few of the many similar cases in my file cabinets. I wasn't able to help these clients avoid the pitfalls of adopting dogs who were behaviorally damaged, but perhaps I can help you.

Here are five things you can do to maximize your chances of adopting a dog who will turn out to be all you want him to be:

BE WILLING TO WAIT. Just because you are at the shelter or rescue facility doesn't mean you have to go home with a dog *that day*. Staff or volunteers may pressure you to adopt a dog, perhaps even telling you the dog will be euthanized for space if you don't take him home.

Remember that you, too, have limited space; most of us have space for just a few dogs in our families and lives, and with luck, the dog you adopt will be with you for 10 to 15 or more years. Resist the pressure and the sad eyes, unless the dog you truly want is there that day. You can always come back, and keep coming back, until the dog of your dreams is there.

ADOPT. Internet adoptions are all the rage these days, and any good training and behavior professional will tell you "Don't do it!" Regardless of the descriptions and assurances someone may give you, you have no idea who you are adopting unless you meet him first. If you must adopt a dog from across the country because you fell in love with him on Petfinder or some other website, fly out to meet him, and if he turns out to be your Prince Charming, rent a car and drive him back home.

LET YOUR HEAD RULE YOUR HEART. It's all too easy to feel sorry for the poor, frightened dog huddling in the corner of her kennel at the shelter. Your heart says, "Oh, I have to help him. If I take him home and love him enough, he'll turn into a wonderful dog and he will love me for saving him."

While it's true that there are some dogs who find the kennel environment overwhelming and are just great *outside* the shelter, other dogs who behave like this in the shelter may actually *be* like this eveywhere they are taken.

Ask if you can take the dog outside, or to a room far away from the kennel noise. If he morphs into a friendly, happy, normal dog when you get him away from the kennels, then you're on more solid ground; you probably have a reasonably normal dog who is on the sensitive side

and cannot handle kennel chaos. Even so, keep in mind that he may also be fearful of *other* busy or chaotic environments.

If, instead, he continues to be fearful outside of the kennels, he may be a pathologically fearful dog who will take tons of work and still may never be even close to normal. Your head should say, "Not for me." Listen!

ASK FOR A BEHAVIOR ASSESS-MENT. Many reputable shelter and rescue groups have some sort of process by which they identify various behaviors and characteristics of the dogs they make available for adoption. While these are not necessarily scientifically validated, they can give you more information than you might gain by simply looking at the dog. If the dog has been in a foster home, good foster parents will have notes about his behavior while in their care. If the organization does assessments, or has other behavior information about the dog, they should be happy and willing to share it with you.

An important note: Make sure your own observations are congruent with the

information the shelter or rescue group provides. If they tell you the dog hiding under the chair is confident, bold, and outgoing, something is amiss.

ENGAGE A PROFESSIONAL TO HELP YOU FIND A DOG. Many dog-training and behavior professionals offer adoption-counseling services. Very few future dog owners take advantage of those services. If you are not confident about your ability to choose wisely, you might benefit from professional assistance.

A KELPIE FOR THE MILLERS

My husband and I agreed that we'd like another Australian Kelpie. Both of our two prior Kelpie girls were exceptional dogs, and we're hoping for a repeat experience. Kelpies are rare enough that we know that haunting our local shelters for one is pretty futile. Given our sheltering background, the subject of purchasing from a breeder never came up.

We both started perusing rescue sites at about the same time, without mentioning it to each other. The majority of alleged Kelpies and Kelpie-mixes on those sites looked like anything but true representatives of this compact Australian herding dog, and the few that did closely resemble the breed were too far away. California and Texas offered the most – too far to drive, and we weren't about to fall into the "sight-unseen" adoption abyss.

It didn't help that we specifically wanted a red Kelpie. I know color shouldn't matter, but our first two were red, and there was a strong sentimental pull. We found a red Kelpie in Virginia, but he was dog-reactive, and I really needed a dog who could potentially help with modifying the behavior of other reactive dogs, since one of our dogs has already earned senior-retirement, and the other two may not be far behind. A dog-reactive Kelpie clearly wouldn't do. Would we ever

find our red Kelpie? And if we did, how much trouble would we have negotiating the boulder-strewn road to adoption?

Then, an alert from rescueme.org (kind of like Petfinder.com, but, I think, easier to navigate) landed in my mailbox. He was at Joyful Rescues in Cuba, New York – a five-hour drive from our home. He sounded promising: young, red (!), and he supposedly gets along with all humans and other dogs. Although the rescue called him a Kelpie/Setter mix, he looked pure Kelpie to me. I asked my husband,

Paul, if we wanted to drive to New York to see a Kelpie. He said yes.

I e-mailed Joyful Rescues and said we were interested in the Kelpie. They e-mailed me an application to fill out, complete with references. Paul said, "You have to fill out an application? Do they know who you are?"

I said it didn't matter if they did or didn't; I respected them for requiring an application. I filled it out, and gave my references a heads-up that they might be hearing from the rescue group.

"Really?" they all said. "You have to fill out an application? Do they know who you are?" I laughed. The rescue group approved the application.

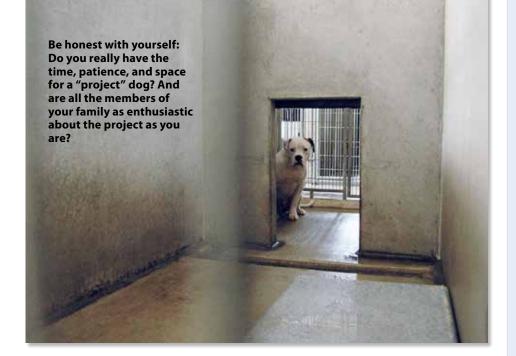
We made the trip just yesterday, hoping the dog was as good as advertised. We were one of the lucky ones; the little red dog was exactly as he had been described, and after spending some time with him we filled out the adoption paperwork, and paid the adoption fee. We joyfully led him out to our car, where he leaped happily into his crate and settled down for the trip home. He rode like a champ,

sleeping quietly in his crate most of the way, resting calmly awake when we stopped for gas and food – not a peep out of him the entire trip. He handled introductions to the rest of our family with grace, including the pig and the cats as well as our three senior dogs, and is presently lying quietly at my feet while I type.

May every dog you adopt be as wonderful as our little red new family member, Kaizen ("positive changes" in Japanese).

The Millers' new Kelpie, Kaizen!





TROUBLED DOGS VS. EASIER DOGS

Shelters, rescue groups, and breeders are all implicated in the litany of sad cases that make up my files these days. They all sadden me, but the ones I find particularly tragic are the dogs adopted from shelters and rescues – organizations dedicated to the well-being of the animals in their care. These are dogs who have already failed in at least one home, and their caretakers have an obligation to set them up for the best chance for success in their next one.

I know that I see a skewed population - very few successful adoptions come to me for behavior consults; mostly, I see only the troubled ones. I do know that shelters and rescuers often do an exemplary job of placing great dogs in appropriate homes, and dogs with some behavioral challenges in fully informed homes that are well-equipped to work with them. I also know that there are breeders who do a terrific job of socializing their puppies.

Still, I see many dogs who would have never been made available for adoption during the two decades that I worked in a shelter (1976-1996) and who shouldn't have been placed in homes today. I understand and applaud legitimate, responsible efforts to reduce euthanasia numbers. Placing badly damaged dogs is neither legitimate nor responsible, and even the "no-kill" movement allows for euthanasia of dogs who are "nontreatable and non-rehabilitatable."

Those groups who want to save dogs with significant behavioral issues need to be willing to invest the necessary resources to effectively modify the dogs' behavior before they are placed in homes, and many do. An increasing number of shelters are hiring behavior specialists and even adding entire behavior departments to their organizational structures. And many rescue groups have relationships with behavior professionals to assist them with difficult dogs. I am happy to work with several rescue groups (at a significant discount on my rates) and love the dedication that I see in these groups' staff and volunteers. We cry together on those rare occasions when we agree that one of their charges is beyond our help.

There are still plenty of reasonably well-behaved, behaviorally sound dogs who are being euthanized for lack of homes - dogs who, with a little effort, can be as perfect as you could want a dog to be. Why not look for one of them the next time there is room in your home and your heart for another canine family member? 🗳

Pat Miller, CBCC-KA, CPDT-KA, is WDJ's Training Editor. She lives in Fairplay, Maryland, site of her Peaceable Paws training center, where she offers dogtraining classes and courses for trainers. Pat is also the author of many books on positive training. Her two most recent books are Do Over Dogs: Give Your Dog a Second Chance at a First-Class Life, and How to Foster Dogs; From Homeless to Homeward Bound. See page 24 for more information about her dog-training classes, books, and courses for trainers.

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Outfoxing Foxtails

The barbed grass awns known as foxtails can invade your dog's body without sign or warning.

BY DENISE FLAIM

t sounds like a promising pitch for a horror movie: An invader slips surreptitiously into your dog's body, unseen and unsuspected. While your dog sniffs and snoozes and goes about her everyday life, the intruder burrows ever inward, literally pulling itself through her soft tissue and organs with sharp, needle-like spikes.

But the cunning interloper isn't an alien, or a zombie virus, or any manner of blob-like mutant. It's the seed of an innocent-looking grass called a foxtail.

Annual plants that are ubiquitous in the western United States, foxtails can be found bobbing in the breeze along roadsides and hiking trails, and in abandoned lots and suburban backyards. But this enterprising weed has expanded its range widely, and now is found in all but seven southeastern and Gulf Coast states: Florida, Georgia, Hawaii, Louisiana, North Carolina, South Carolina, and Virginia. It has also naturalized through most of Canada and parts of Mexico.

When foxtails flower, they unfurl soft



The OutFox Field Guard for dogs is a lightweight mesh hood that prevents dogs from getting foxtails in their eyes, ears, nose, and mouth, without limiting their access to the outdoors. Dogs can pant, drink, and even fetch with the guard on.

and brush-like spikes that resemble the tail of the crafty canid that gives them their name. Shooting up in waves of green during the relatively moist winter season, foxtails begin to dry out in spring, starting around late March on the West Coast. That's when the trouble begins, and it persists until rain arrives in the late fall.

"When the seed heads become brittle and dry, they are treacherous," says Beth Boynton, DVM, FNAP, professor at the College of Veterinary Medicine at Western University of Health Sciences in Pomona, California. "They have a very sharp and persistent front point, like an arrowhead, and nasty backward spikes that keep the awn moving forward. That's good for burrowing into the ground – and digging deep into animals' skin, eyes, nose, mouth, ears, genitals, and feet."

The most common foxtail-producing grass is "wild barley," (*Hordeum murinum*). But ripgut grass, cheatgrass, and red brome also produce penetrating seed awns.

California is a hotbed of foxtail activity, and the state's ongoing drought has expanded the season, as seed heads dry out ever earlier in springtime. "With our warmer and drier forecasts, we can expect to see plenty of these plants," Dr. Boynton says. "When we have times of economic stress, many lots and yards are left untended and can be sources of foxtail awns."

L to R: A green foxtail; a dried foxtail; a desegmented foxtail. Each seed in the bushy "tail" has several long, trailing awns that are covered with microscopic "scales" that permit movement in one direction only. This makes them dig ever deeper into flesh, requiring veterinary removal in most cases, usually under anesthesia.





TALES FROM THE FRONT

Burrs usually attach to a dog's fur when they are rubbed against or sat on. In contrast, foxtails are uncannily stealthy, and begin to penetrate with unbelievable speed. Dr. Boynton says the feet, armpits, nose, eyes, and ears are the most common areas where foxtails begin to burrow. Even the simple act of sniffing - an imperative with most dogs - opens the door to trouble. "If the dog is following a scent, they tend to inhale foxtails or get them around the face," she says.

Nature has designed foxtails to be brutally efficient: They have a sharp point at one end and microscopic barbs that help them "hook" into the soil. Once they find their way into a dog's body, the barbs move ever forward, nudged on by the movement of muscle (or, depending on where the foxtail is lodged, air flow). Similar to the way a fishhook works, foxtails cannot reverse direction. Behind them, they leave a telltale hollow trail, or tract, which invariably becomes infected.

Foxtails are incredibly resilient, and take a very long time to break down in the body. Left untreated, the infection worsens. And in rare cases, if the foxtail has penetrated the body cavity through the chest or abdomen, it can be fatal.

"Foxtails have been seen to migrate from paws up the leg, into the chest, and

Levi, who had multiple foxtail-related trips to the veterinarian, sitting among wildflowers near the beach (and foxtails all around his feet!).

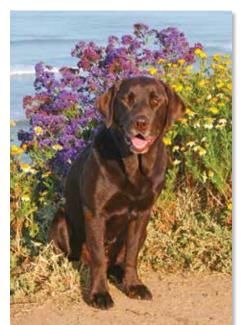
deep in the ears or nose," Dr. Boynton says. "There are reports of

dogs having foxtails that burrowed into the lungs, abdomen, or brain."

Frustratingly, foxtails cannot be seen on X-ray, leaving veterinarians to guess at the cause of a dog's unexplained infection. Locating the troublesome awn is akin to finding that proverbial needle in a haystack.

Kate Gordon Zimmer of San Diego dealt with foxtails "on and off" throughout the life of her chocolate Labrador Retriever Levi, who died in 2013 at 131/2 years old. Zimmer liked to take Levi hiking in the nearby canyons, and she always did a thorough body check after they returned home. But the foxtails were just too sneaky.

"Levi got foxtails in his eye, and up



Ouch! It's just what it looks like: A vet removing a foxtail from a dog's vagina. Luckily, her owner noticed that her dog had a few drops of blood "back there" and knew that it more than likely indicated a foxtail, given that it was spring and the dog is spayed.

his nose, and, most significantly, in his mouth," Zimmer says. It was that last point of entry that caused the most trouble – and it happened to Levi twice.

"When the foxtails went into his mouth, he did not inhale them; they worked their way between his teeth and

> the gum," Zimmer explains, adding that some dogs like to nibble on newly sprouted foxtails, and, like Levi, can inadvertently ingest them when they are starting to dry out. "And then, they worked their way out - through his cheek."

Levi's face ballooned with a lump the size of a baseball. The vet prescribed antibiotics, and the swelling was lanced and drained, but the

foxtail was nowhere to be found. "I was given bottles of saline with a hooked tip, and I had to flush the open wound on his face several times each day," Zimmer remembers. "He was on antibiotics, but nothing was changing, and the wound wasn't getting any better."

Finally, the mass on Levi's face swelled shut, and Zimmer took him back to the vet. As the vet tech led him away, the infected area "exploded" - a moment Zimmer says she'll never forget. As she and the vet tech cleaned out the wound, they finally found the foxtail.

When Levi repeated that episode a few years later, Zimmer at least was prepared. "That time the issue wasn't quite as dramatic, and after the initial swelling the foxtail had worked itself through, and we were able to find and extract it," she says. "But he still had to be on antibiotics and have the wound flushed."

Vanessa Lawrence of Paso Robles, California, says her four Rhodesian Ridgebacks like to "graze" in the backyard. Even though she is careful to mow down the foxtails as soon as they pop up, she has had a half-dozen or so vet visits in the last few years when foxtails lodged in her dogs' throats or tonsils. (Foxtails that reach the stomach are often safely expelled from the body.)

If foxtails are problematic for relatively wash-and-wear dogs such as Labradors and Ridgebacks, owners with long-coated breeds face even bigger hurdles. Steve Lausmann of Citrus Heights, California, has Bearded Collies, whose long coats are magnets for foxtails.

"I herd with one of my dogs, and some of the fields have foxtails," he says. "I spend time immediately afterward to comb and brush out the foxtails. Sometimes this takes hours."

Despite his diligence, Lausmann has had two large, foxtail-related vet bills more than \$500 each. "Both were in the feet and had become infected," he says. "And this was after we had gone over the paws thoroughly for foxtails."

Foxtails are nimble foes, blown about by wind and cropping up where you might least expect them.

"Last weekend, I took two of our Bearded Collies to run in an open field of green grass," he says, adding that he didn't think foxtails would be a problem there. But he was wrong. "When I got home and examined them, the foxtails were all over their legs and paws. It took two hours to go over both dogs with combs to remove them."

FIGHTING BACK

The only foolproof way to truly keep a dog foxtail free in an area where the awns are present is to simply not visit there – and even then, you can't be sure your dog won't be exposed. But since keeping dogs under glass is not practical, here are some tips for minimizing foxtail infections:

- **KEEP A WIDE BERTH.** "Keep your dog on leash and away from grassy areas," Dr. Boynton advises, adding that whenever possible, choose walks with wide paths that minimize contact with the plants. While beaches are generally free of foxtails, trails leading to them often are not.
- CONSIDER A "FOXTAIL CUT." Dogs with longer coats can be trimmed so that they are less likely to pick up foxtails and so it's easier for you to spot them. In particular, removing hair from the paw area is important, since the space between the toes is a favorite spot for foxtails to migrate. The same goes for around the ears.

■ DO A POST-WALK INSPECTION.

Dr. Boynton suggests you look and feel thoroughly between all the toes, under the "armpit," and under and around the tail. Thoroughly check the ears and eyes.



■ LICKING, SNEEZING, OR HEAD-SHAKING? Get thee and thy dog to a veterinarian, ASAP. Excessive licking of a foot or other area, vigorous head shaking, or sudden bouts of violent sneezing are all reasons to bring your dog in for a vet check. In most cases, you won't be able to see any trace of the grass awn; your vet will likely have to sedate or completely anesthetize your dog in order to explore his ear, nose, or other affected body part deeply enough to find a foxtail. Usually, an otoscope (to view inside the dog's nose or ear) and long, slender forceps are needed to follow a foxtail's distinctive tract and remove the awn.

■ STOP FOXTAILS AT THEIR SOURCE.

Like all weeds, foxtails can spring up seemingly overnight, and diligence is required to keep them at bay. "Encourage neighborhoods and cities to mow, rake, and manage yards and empty lots," says Dr. Boynton, who reminds that just cutting them down isn't enough. "The area needs to be raked and cleared. Remember that even with the utmost caution, foxtail awns can blow almost anywhere."

- **BEWARE OF COMPOSTING.** Foxtails will survive in the average residential compost heap; the temperature simply does not get high enough to kill them. Instead, place debris in "green bins" to be composted by municipalities, whose composting facilities have the high temperatures that can zap them.
- **CONSIDER TIMING.** Zimmer tries to visit foxtail-prone areas in the early mornings. "At least here near the coast, there is some coastal fog," she says. "That makes the foxtails damp, and they don't break off or get sniffed up as easily."

HEAD CASES

There is at least one product on the market that helps combat foxtails before they can get lodged in a dog's body.

Diane Kostelec first heard of foxtails

All of these foxtails were removed from just one ear of a Poodle-mix surrendered to a shelter. The sturdy awns can resist decomposition for months in the body, keeping irritation and infection active.

in 1978, when she moved to California and her then-boyfriend with a Labrador Retriever mentioned them. But it wasn't until she got her own dogs that foxtails really hit her radar screen.

Kostelec's energetic Vizsla kept having foxtail encounters during their hikes in the San Francisco Bay area. In 2010, she began selling and marketing her OutFox Field Guard (outfoxfordogs. com), a black mesh hood that attaches to a dog's collar and covers and protects the entire head.

Kostelec chose black netting because it interferes least with the dog's field of vision, while also serving as a sunscreen, and the guard is generously sized so it does not touch the dog's face. When Kostelec first tested it on her own dog, Iris, the Vizsla was unfazed, running around as if nothing was out of the ordinary, even drinking water through the netting. Passersby, however, are a different story. "Some people call it a beekeeper's hat; other people compare it to a veil. And some figure it's a muzzle and that your dog is dangerous," Kostelec says of the varied reactions to the guard. "But once they know it's for foxtails, people totally get it."

Kostelec says that she has gotten orders from as far away as Australia. And some buyers who don't have foxtail problems have found that the devices work well in preventing dogs from ingesting things they aren't supposed to, from rocks, to acorns, to feces.

The OutFox prevents foxtails from attaching to only the head area. Kostelec says she is contemplating the design and production of a lightweight bodysuit.

Until then, owners who want to enjoy the great outdoors with their dogs need to be aware that in many, if not most parts of the country, foxtails are a very real danger. Try to keep your dogs away from them, and check them frequently for any sign that they may have a foxtail lodged inside them. If you see such a sign, get them to a vet as quickly as possible. *

Denise Flaim of Revodana Ridgebacks in Long Island, New York, shares her home with three Ridgebacks, 11-year-old triplets, and a very patient husband.

First-Rate First Aid

Commercial first-aid kits for dogs contain a highly variable mix of useful and useless items.

BY CYNTHIA FOLEY

very owner should have a first-aid kit for their dogs. But what should be included in that kit? If you're looking for a definitive answer, you'll need to pull out your crystal ball, because there's no telling what you might need in an emergency, since there are infinite ways your dog can be injured. To be prepared for every possible scenario, you'd need a fully stocked van. It really can't be done – and shouldn't be done – because that's not what "first aid" is all about.

First aid is the care given to an injured dog until full veterinary services are available. It is *not* a replacement for veterinary care. Your goal is to temporarily make your dog's situation better – stop the bleeding, apply a splint, perform CPR – whatever you need to do to sustain life, reduce further injury, and decrease pain until a veterinarian can take over.

When shopping, it's important to understand the difference between first-aid kits and disaster kits. A disaster kit is stocked to maintain life for days during a crisis, such as a hurricane. It contains food, water, safe-haven information, crates, ropes, extra collar and leash, daily medications, emergency phone numbers, photo IDs for each animal, basic first-aid supplies, and so on.

In contrast, a first-aid kit should

contain supplies that are sufficient to handle most injuries that might occur in your dog's normal, daily life.

That said, there is a wide variety of canine first-aid kits available, ranging from being rather minimally equipped, to fairly well-stocked with useful items. However, when we shopped for kits, in order to assess and review them for this article, we didn't find any that contained everything our veterinary advisors thought a first-rate first-aid kit for dogs should contain! There were a couple that came close, though – and we will reveal our top picks, and what we'd add to make these choices more complete.

YOUR NEEDS MAY VARY

When we started shopping, we were looking for the kit that contained the most useful items possible. It didn't take

long, however, to realize that the "best" kit for a working sheepdog on a huge ranch or a search-and-rescue dog who is routinely trained or deployed in the mountains may be overkill for a dog who lives in an urban setting and is walked only on-leash.

Further, all the medical supplies in the world are useless if they are in the hands of someone who faints at the sight of blood; your own abilities to handle a medical emergency, minor or major, may also affect which kit would be appropriate for you to own.

Your choice of a canine first-aid kit, then, may be influenced by your and your dog's unique needs, including:

■ YOUR ABILITY ADMINISTER FIRST

AID. If you feel woozy when you find a blood-bloated tick on your dog, all the gauze and 4x4s in the world will not help you when your dog comes to you yelping and with a gaping wound. However, pretty much anyone can deal with cold packs for sprains or use a syringe to flush out an injured eye with sterile eyewash.

Sometimes first-aid or emergency situations involve more technique than products. Learning in advance how to administer CPR to your dog and how to retrieve a foreign object that obstructs breathing can be a life-saver. YouTube carries some excellent videos on techniques, but we suggest you choose those uploaded by a veterinarian, veterinary hospital, or clinic.

Even for minor injuries, like a torn nail or bee sting, it's wise to familiarize yourself with basic first aid prior to when you need it. We frequently thumb through the *Dog Owner's Home Veterinary Handbook, Fourth Edition* (by Drs. Eldredge, Carlson, Carlson, and Giffin), because it's thorough and contains user-friendly advice.



USEFUL ITEMS FOR A DOG FIRST-AID KIT

ITEM	USE
Abdominal pad	Large absorbent pad, usually gauze, for large wounds and heavy bleeding. Best if sterile.
Adhesive bandage tape	Inch-wide tape is more comfortable and secure than narrower tape. Use to secure bandages and gauze.
Alcohol	Either in a bottle or used to soak gauze pads soaked in sealed packets. Use to sterilize scissors, tweezers, etc.
Antibiotic ointment	Prevents infection.
Antiseptic	10% povidone iodine often included in kits; Nolvasan is a good alternative. Pre-wetted pads seem convenient, but we prefer at least a 4-oz. bottle of antiseptic. Use to clean wounds, your hands, equipment, etc. Using a syringe to apply it will waste less of it.
Benedryl (Diphen- hydramine)	Use these tablets for allergic reactions or severe itching caused by insect bites or bee stings.
Cotton shirt or towel	A white cotton t-shirt or towel can be used for packing or wrapping large wounds.
Cotton swabs	Use to apply ointments and solutions.
Credit card	An expired credit card is perfect for scraping off bee stingers.
Elizabethan collar	Probably too big to keep in your kit, but having one in advance of an injury can prevent a dog from worsening a wound.
Emergency blanket	Use to provide warmth due to weather, shock, or exposure. Most are packed in tiny packets and are silver, which can also double as a flag to get someone's attention.
Exam gloves	Use to avoid further contaminating open wounds. Choose latex-free gloves if you or your dog is sensitive to latex.
First-aid instructions	A written how-to can be useful, but it must be written for use in an emergency – clear and concise.
Gauze pads	Use to absorbing blood or bandage wounds. Pads smaller than 3 inches square are unhelpful, except on the smallest dogs.
Gauze rolls	Can be used to hold cold packs in place, bandage wounds, stabilize splints, or for a temporary muzzle.
Hemostat, forceps, or needle-nose pliers	A smaller, thinner hemostat can be used to remove objects from dog's throat or to hold skin or bandage pieces in place. Needle-nose pliers can also be used to gently remove porcupine quills or debris from large wounds.
Honey	Administer for shock; Karo syrup is also a good choice.
Hydrogen peroxide	Use as a wound wash or to induce vomiting when needed. Dosage is usually 1 teaspoon per 10 lbs of body weight.
Instant cold compress	Use for stings, bruises, inflammation. (At home, you can use frozen vegetable bags or ice bags instead of the instant type.)
Muzzle	Use for any dog in severe pain to prevent being bitten while you are carrying him or otherwise trying to help him.
Penlight	Use to help you see more clearly into the dog's ear, mouth, or wound. (And pack spare batteries.)
Phone numbers	Include numbers for veterinary poison control (888-426-4435); your veterinarian; and your local veterinary emergency clinic.
Rehydrate Tablets	Electrolyte tablets can be critical for a severely dehydrated dog or one with heatstroke.
Scissors	Use to trim hair away from wounds, or for gauze and bandages. Blunt-tipped scissors are ideal.
Cohesive bandages	(Vetrap or CoFlex.) This 3-inch-wide, stretchy bandage, made of a material that sticks to itself, is ideal for fast bandaging.
Skin stapler	Use to hold edges of a gaping wound together, to help control bleeding and worsening of wound.
Sterile eye wash	Use to flush debris or caustic material (including skunk spray!) from eyes.
Sterile wound wash	Use in a syringe to irrigate and flush debris from wounds.
Styptic powder	Use to help stop bleeding (toenails, minor wounds).
Syringes	For flushing wounds, eyes.
Thermometer	Taking a dog's temperature is especially critical in case of heat stroke or hypothermia.
Tick remover	A good tick remover works far better and faster than tweezers.
Tongue depressor	A tongue depressor is invaluable for examining a dog's mouth or throat; it can also be used as a splint on a smaller dog.
Tweezers	Removing debris from wounds, splinters, etc.

Your choice of a canine first-aid kit may also be influenced by:

THEIR ACTIVITY LEVEL, AND TRAVEL/TIME AWAY FROM HOME. A quiet stayathome pet has a lower risk of injury than the sporting dog who runs, jumps, twists, and turns. Dogs who are active in wilderness areas – ones who hunt or hike with you – have a greater risk of injury, not just from the terrain but also from wildlife, poisonous plants, and insects they may encounter. The more adventures you share with your dog, the higher the risk of an accident.

AND STORAGE. Your first-aid kit should be in an easily accessible location. Hunting down supplies in an emergency wastes critical minutes. We don't recommend permanent storage in your car or garage, as the temperature extremes can be harmful to some of the contents, but it's a better option than forgetting to take the kit with you.

Some first-aid kits are made to fold up or roll up, making it easy to locate the supply you need while taking up little space. They're a great choice for tossing in your backpack to bring along on trips with your dog.

TABLE OF CONTENTS

As mentioned above, we asked some veterinarians what they would include in an ideal first-aid kit; their wish list appears in the table on the left. However, none of the commercial kits we found on the market contained everything recommended by our experts. You could build your own first-aid kit from scratch by going down our chart list. However, it's most efficient - in terms of time and money - to begin with the commercial kit that most closely fits your individual needs and simply add supplies to it. Our descriptions of the 10 most promising canine first-aid kits on the market (starting on the next page) can help guide you toward the base product that would work best for you and your dogs.

A few notes about the contents recommended by our experts:

BENADRYL TABLETS – Discuss dosages of this useful antihistamine with your veterinarian. A common recommendation for dogs is 1 mg per pound of the dog's body weight every

eight hours, up to a maximum of 50 mg (regardless of the dog's weight). A Benadryl tablet contains 25 mg of the antihistamine, so a small dog, weighing around 8 pounds, would receive about one-third of a tablet.

- **EXPIRATION DATES** Anything perishable in the kits including antibiotic ointment, peroxide, antihistamines, or sterilizing agents should bear an expiration date that is well into the future.
- GAUZE If you're ever faced with a serious bleeding situation, you're going to want a great deal of gauze. Most of the kits could use a little plumping up in this department.
- MUZZLE Even the kindest dog on earth may bite when in pain. If you already own a soft muzzle, keeping it in the kit would be an excellent idea. In an emergency, one can also fashion a muzzle out of a roll of gauze, provided you have enough in the kit and you take the time to learn to do it before you need it.
- **SKIN STAPLER** While you may feel you'll never need a skin stapler, our veterinarian rattled off several scenarios where one could be crucial, for helping keep a large wound from opening further on the way to a veterinary clinic.
- SYRINGES Not one of the kits we reviewed included more than one syringe, indicating once again that these kits seem to be conceived as singleuse items. We'd definitely stock more syringes in our kits; they are highly useful for flushing wounds or eyes.

ASSESSING THE KITS

We have to admit, we were surprised by the appearance of some of the *tiniest* cotton balls we've ever seen, and *miniscule* packets of ointments and antiseptics. But as Eileen Fatcheric, DVM, of Syracuse, New York, explains, "Keep in mind the purpose of a first-aid kit: It's basically designed for one incident. After that, you replenish the supplies you used." Still, in almost every case, we wish the kits included a more generous number of gauze pads and bandages.

Now that we've explained what we are looking for in a useful first-aid kit, let's take a look at the 10 kits we examined, in order of their purchase prices.

IDTag.com Pet First Aid Kit - \$7

We had to look at the first-aid kit sold by IDTag.com; it was the least expensive one we could find. Surprisingly, it has one of the better quick-reference first-aid instruction sheets we saw, and it crams a lot of stuff into a tiny pack. It contained 47 pieces, including 15 of our recommended items.

However, the small zipper case had an "oily" smell, and several of the products inside had a 2009 expiration date! The word "sterilze" (sic) printed on the abdominal pad didn't help our confidence level. It may be a very basic kit at a rock-bottom price, but we wouldn't buy it again.

We purchased from amazon.com. It can also be puchased from dealgenius. com; (773) 276-1001.

Alcott Emergency First Aid Kit – \$21

The "Pets and People Travel Size" firstaid kit from Alcott is well stocked, containing 40 pieces, including 19 of our recommended items. One very important item that should be added: scissors.

We like the compact fold-out/roll-up design and its carrying handle. However, we'd swap out some of its contents for more useful supplies. A small bottle of hydrogen peroxide is a great addition but its packaging in a clear bottle can negate its effectiveness. Plus, the bottle was labeled as "3% w/v Hydrogen Peroside" (sic), which made us uneasy. Reminding us the kit is for pets *and* people, the kit includes a CPR barrier shield. At \$21, this isn't a bad start, but we'd dump the dog brush and human hand sanitizer and add a thermometer, scissors, and forceps.

Made by Alcott. We found it at alcottadventures.com; (513) 874-5383.

Lixit Pet First Aid Kit - \$21

This kit is packaged in a plastic canister with a handle and a top that can double as a water bowl. It's nicely stocked for basic first aid needs (containing 45 pieces, including 18 of our recommended items), and includes a good instruction sheet.

We wish it included some paper bandage tape, even though the 1-inchwide self-adhesive bandage tape can serve double duty. It includes a syringe but no sterile wound wash or antiseptic for flushing wounds. Fortunately, there's ample room in the canister for the addition of these basic supplies. This first-aid kit can be purchased directly from lixit.com; (800) 358-8254.

First Aid USA Pet First Aid Kit – \$28

The Pet First Aid Kit from First Aid USA is contained within an impressive foldout nylon pouch with a zip closure. We like its see-through pockets and mesh. This kit's designers were smart enough to include a leash, water bowl, and a tweezers/tick remover with a magnifying glass among the 50 pieces included in the kit (including 16 of our recommended items).

Things we didn't like: the absence of first-aid instructions, and the inclusion of an empty bottle – presumably for wound wash, but you'll break the sterility of your solution by pouring it into that bottle. The empty bottle takes up a lot of space, but the pill container is useful. By swapping a few of the nonsensical items for some more useful ones, you'd have a contender.

We purchased from amazon.com; sorry, no phone purchasing.

Vigilant Trails Pet First Aid Kit – \$30

This kit was contained in a plastic container that can double as a water dish. It's compact and stuffed full, with 70 pieces, including 15 of our recommended items. The first-aid tip sheet is excellent. There were no instructions on how to use the venom extraction pump – and though we *did* figure it out, the current recommendation from veterinary experts who deal with snake bites is to rush your dog to a vet, rather than waste time trying to get venom out of a bite wound (see "Don't Get Rattled," page 5).

The kit includes antihistamine tablets (generic version of Benadryl) but offers no guidance on dosage. The emergency whistle feels dated in today's cell-phone age, but you never know. Overall, we like this kit, but we'd switch out the adhesive bandages for more gauze pads and rolls.

We purchased the kit from vigilant-trails.com; (408) 471-8767.

Kurgo Pet First Aid Kit – \$30

A really good booklet, with clear instructions for many emergencies, is included with this kit made by Kurgo. The nylon roll-up carrier has three zip pockets and one mesh pocket, and contains 50 pieces,

including 14 of our recommended items. We like that the outer tie is adjustable, so it could accommodate more supplies.

You can get a complete refill kit from Kurgo for \$15, half the original price. Buying the refill kit and providing your own case would provide you with the best-priced starter kit around.

This kit can be purchased directly from kurgo.com; (877) 847-3868.

Essential Pet First Aid Kit – \$35

This kit, made by JoJo Modern Pets, is packaged in a nylon pouch that opens up flat; the supplies (30 pieces, including 14 of our recommended items) are contained in the two inside compartments. The instruction card tells you what the contents are for, which is helpful. The kit included the fewest items of all the kits we looked at; it definitely seems to be designed for a single emergency use.

We like the saline wound wash and wide bandage tape in the kit, but overall, we think there are better values. This kit can be purchased directly from its maker, jojomodernpets.com; (855) 226-5656.

Sporting Dog II First Aid Kit – \$46

The Sporting Dog II Portable Field First Aid Kit is packed in a wide-mouth topzip canvas tote with four padded outer pockets. The tote contains 36 pieces, including 16 of our recommended items. A good first-aid book, written by a veterinarian, is included.

We like that the kit contains generously sized bottles of sterile saline, hydrogen peroxide (properly packaged in dark container), and 10% povidone iodine. We realize that once you open them, their shelf life is shortened, but it simply builds confidence to know you have plenty to work with. The full-size surgical hand scrub sponge is far more inviting than using several tiny antiseptic towelettes. The kit also includes two paper towels, plus cohesive (sticks to itself) bandage, and a pill popper. The company also offers a larger kit with more supplies.

The kit is made by Creative Pet Products. We purchased it from First-Aid-Product.com; (888) 228-6694.

Pro Model 1000 First Aid Kit – \$70

Outdoor Safety's Pro Model 1000 First Aid Kit is packaged in a stiff canvas bag that is hinged to stay open, with web

handles, a wide top zipper, and pockets on each side (one with snap closure). A bottom zipped compartment holds a comprehensive first-aid book, written by a veterinarian. Nearly every one of the 66 pieces (including 29 of our recommended items) is packed individually.

Some of the most useful items in the kit include a disposable skin stapler (good through 2019) and instructions for its use; a Ticked Off tick remover; digital thermometer; leash with slip end; surgical scrub brush; and generous sizes of eye wash, sterile saline, properly packed hydrogen peroxide, and povidone iodine 10% solution. We applaud that the kit included a Rehydrate electrolyte tablet but were disappointed that it had expired. Overall, this is a comprehensive kit and good choice.

Outdoor Safety offers one smaller canine first-aid kit and two even more thoroughly stocked (and more expensive) kits. The company also sells individual components of the kits, so you can easily replace supplies that you used.

See more about other Creative Pet Products offerings at dogkits.com. We purchased from outdoorsafety.net; (507) 643-6333.

Ready Dog K9 First Aid Kit - \$96

Ready Dog's "Gun Dog First Aid Kit" contains 56 pieces, including 21 of our recommended items, in its wide canvas case with a full-length zipper. It opens up flat, revealing inner zipped pockets with see-through covers. A smaller pouch inside can be removed and stashed in a jacket pocket for use farther afield.

A comprehensive first-aid book, written by a veterinarian, is included, along with a recipe for an odor removal solution (for skunk spray or anything else particularly smelly). We particularly like its disposable skin stapler and stainless steel tools. The kit includes a pint of hydrogen peroxide (in a dark bottle) and 4 ounces of eye wash; a digital thermometer; hemostat; cotton tip applicators in sterile packaging; and some packets of honey, which can be administered in case of shock.

Ready Dog sells an even larger firstaid kit, as well as a \$49 refill kit and individual accessories. You can see its other offerings at readydog products.com. We purchased from gundogsupply.com; (800) 624-6378.

TOP PICKS

If your dog is almost always home, and you live fairly close to your veterinarian, you would probably be adequately served by one of the smaller kits. For this application, we'd suggest considering the Kurgo refill kit. At \$15, you'd get a pretty good start on supplies for basic first aid. Toss it all in a dollar-store plastic box, add what you feel it's missing for your needs, and you're good to go.

For those with more active dogs, we suggest the Pro Model 1000 First Aid Kit from Outdoor Safety or the Ready Dog K-9 First Aid Kit/Gun Dog First Aid Kit. Both are costly, but also intelligently designed and well-stocked with enough equipment to deal with a wide variety of emergency situations.

The nod for No. 1 pick goes to the Pro Model 1000. It's \$20 less than our runner-up and includes 30 of the items in our chart on page 18, such as a tick remover, povidone iodine, and sterile wound wash, all in a compact tote. We'd like to see Benadryl and tweezers added, but otherwise it's a pretty complete kit, offering great peace of mind to the owner of an active dog.

Freelance writer and editor Cynthia Foley is an experienced dog agility competitor. She lives in upstate New York.



Here's the entire contents of our top pick in a well-stocked canine first aid kit: Outdoor Safety's Pro Model 1000 First Aid Kit.

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👺 RESOURCES 🕸

TRAINING AND INSTRUCTION

- Pat Miller, CBCC-KA, CPDT-KA, Peaceable Paws Dog and Puppy Training, Fairplay, MD. Group and private training, rally, behavior modification, workshops, intern and apprentice programs. Trainers can become "Pat Miller Certified Trainers" (PMCT) by successfully completing Pat's Level 1 (Basic Dog Training and Behavior) and both Level 2 Academies (Behavior Modification and Instructors Course). (301) 582-9420; peaceablepaws.com
- Nancy Tucker, CPDT-KA, Éducation Canine Nancy Tucker, Sherbrooke, Quebec, Canada. Training and behavior consulting; seminars on dog behavior for owners, trainers, and veterinary staff. (819) 580-1583; nancytucker.ca

BOOKS AND DVDS

WDJ Training Editor Pat Miller is author of Positive Perspectives; Positive Perspectives 2; Power of Positive Dog Training; Play With Your Dog; Do Over Dogs: Give Your Dog a Second Chance at a First Class Life; and her newest book, How to Foster Dogs: From Homeless to Homeward Bound. Available from dogwise.com and 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



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