Your complete guide to natural dog care and training

## WholeDog Jourinal

 PuppyBasics

## Bringing Home Baby

## The key to bringing a puppy into your home is to think things through well before the big day.

Most people spend months preparing for the arrival of a new baby. They're just as likely, however, to bring a baby dog home on a whim, without any preparation at all. Small wonder they find themselves playing catch-up for weeks, months, years, or even "getting rid of" the dog as they struggle to recover from the mistakes made in the pup's formative months


How much is that doggie in the window? Bringing home that cute puppy on a whim can have major consequences for weeks, months or even years down the road. A small investment of time and money, before you bring home a pup, is best for everyone.

For example, a lack of a crate, puppy pen, or baby gates from day one makes housetraining "mistakes" inevitable. This can set back later housetraining efforts by weeks or even months, as the puppy is triggered to eliminate in spots where he smells remnants of his past "accidents."

The wise puppy-owner-to-be puts much thought into pre-puppy preparation. When I was a preteen, my parents had the foresight one Christmas to put a gift certificate and a dog bowl and leash in a wrapped package under the tree rather than rushing out to buy the Collie puppy I'd been asking for as a living holiday gift. That gave us plenty of time to prepare for the new canine baby as a family, and to give our new dog a carefully structured introduction to our home.

Pre-puppy preparations fall into three categories:
$\square \quad$ Supplies and equipment.
$\square$ Service providers.
$\square$ House rules and routines.

## Supplies and equipment

There's lots of puppy stuff you'll need to make your puppy comfortable, happy, and successful as he learns to adapt to your alien environment.
$\square$ Crate. A crate is an indispensable behavior management tool; it facilitates housetraining and prevents puppy misbehavior by keeping your dog safely confined when you're not there to supervise. It allows you to sleep peacefully at night and enjoy dinner and a movie without worrying about what the pup is destroying.
$\square$ Puppy pen/exercise pen. This is another extremely useful management tool, but it expands the "den" concept of a crate to a slightly larger area, giving a pup more room to stretch her legs, yet still keeping her in a safe, confined area. Many people include a "restroom" facility, by using a tarp underneath the pen and newspapers on top of that at one end.
$\square$ Tether. This is a short (about four feet in length) plastic-coated cable with sturdy snaps at both ends. Tethers are intended to temporarily restrain a dog for relatively short periods of time in your presence, as an aid in a puppy supervision and house-training program, and as a time-out to settle unruly behavior. They should not be used as punishment, or to restrain a dog for long periods in your absence.

## $\neg$ Collar, ID tag, leash, and harness.

$\square$ Seat belt. Use a restraint that fastens to your car's seat belts and your dog's harness (never a collar) to keep her safe, and safely away from the driver.
$\neg$ Clicker. Properly used as a reward marker, a clicker significantly enhances your communication with your furry friend and speeds the training process.
$\square$ Treats. A clicker, of course, is nothing without an accompanying reward. We use treats as the primary reward to pair with the clicker because most dogs can be motivated by food, and because they can quickly eat a small tidbit and get back to the training fun.
$\checkmark$ Long line. A lightweight, strong, extra-long leash ( 10 to 50 feet), the long line is an ideal tool to help your dog learn to come reliably when called regardless of where you are or what other exciting things are happening.
$\square$ Kong toys. If we could buy only one toy for our dog, it would be a Kong, a chew-resistant (not chew-proof), rubber toy with a hollow center. A Kong can be used "plain" as a toy, but makes an irresistible treat for any dog when stuffed with kibble or treats that are held in place with something like peanut butter, cream cheese, or yogurt.

## Balls, interactive toys, fetch toys.

$\square$ Grooming tools. Choose combs and brushes appropriate for your dog's type of coat (ask a groomer or vet), shampoo and conditioner, scissors, nail clippers, cotton balls, and toothbrushes.

Start using these tools on your puppy early, pairing the experience with tasty treats so she forms a positive association with the task.

## $\square$ House cleaning tools.

## Service providers

It's never too soon to start researching the corps of professionals who will help you raise your puppy right. That list will include her veterinarian (or veterinarians, including an emergency hospital, holistic vet, and "regular" vet), training instructor, and perhaps a groomer, pet sitter/walker, doggie daycare provider, and boarding kennel. Grab your phone book, make a separate list for each category, and check them out.

Start with a telephone call. If the provider can't be bothered to be pleasant on the phone, chances are she won't be nice in person either. Cross her off.

If she passes the phone attitude test, inquire whether you can visit, ask a few questions, and watch her at work. Then visit. Does she handle canine and human clients gently, and with respect? Are the dogs enjoying themselves, or do they at least appear comfortable? Are the facilities clean, without offensive odor? If the answers to these questions are yes, she stays on the list. If not, cross her off. Make notes next to each of the finalists on your list to remind you whom you liked best and why.

Finally, ask for references. Call the references and ask if they've been satisfied, if the provider seems reliable and consistently dog-friendly. Then pick your favorite animal care professionals, and let them know you'd like to become a client when your pup arrives.

After you've made your final decisions, make a list of names, addresses, and phone numbers to post on your refrigerator along with the phone numbers and locations of your local animal shelters - in case your precious pup should ever get lost.

## House rules and routines

Rules and routines are especially important if there's more than one human in the house, to encourage consistency, an important element of successful puppy-raising. When your pup joins your family, she'll experiment with different behaviors to try to figure out how the world works, and how to make good stuff happen - a dog's main mission in life. The more consistent everyone is, the quicker she'll figure it all out.

Your rules and routines will reflect your dograising and -training philosophies. To develop a relationship with your dog based on mutual trust, respect, and cooperation, implement nonviolent management and training techniques, and avoid methods that require harsh verbal correction and physical punishment. The better you are at keeping your pup out of trouble and reinforcing desirable behaviors, the less you'll be upset with her and the sooner she'll develop good habits.

Here are some issues for your family to discuss and agree on:
$\square$ Where will your puppy sleep? We suggest in a crate in someone's bedroom until the pup's at least a year old and fully housetrained and house trustworthy; then her own bed or someone's bed (or wherever else she wants) is okay.

I Will she be allowed on the furniture? We're okay with dogs on the furniture within reason not the kitchen table, of course - as long as it's not creating any aggression or other behavior problems. We like our dogs to ask permission first if we're on the sofa and they want to join us.
$\square \quad$ Where will she be during the day? The best answer is with you - if you have the luxury of working at home or taking her to the office with you. She should be under direct supervision or leashed and crated, with potty breaks every hour on the hour, at first. If you're not home, she should be indoors, crated (only if you can arrange for adequate potty breaks) or in an exercise pen.

## $\square \quad$ What games will she be allowed to play?

There are games, and then there are games! Good games like "Tug" and "Fetch" reinforce desirable behaviors. Inappropriate games like "Body-Slam the Human" and "Jump Up and Bite Skin and

Clothing" reinforce undesirable behaviors. Be sure everyone in the family is on board with teaching appropriate games, and playing by the rules.

If family members insist on an inappropriate game like "Jump Up" (biting is never to be encouraged), get them to agree to teach polite behavior first, then teach "Jump Up" on a very specific cue - and allow it only on cue.
$\square$ Who will feed her; when, and what? Your pup should be able to depend on regular and high-quality meals from a clean bowl in a quiet place. If you choose to make it a child's responsibility, you must supervise to be sure the dog is fed properly.

Don't allow anyone to pester her while eating. Rather, have family members walk by and drop extra-special treats in her bowl while she eats, to help prevent resource guarding. Feed regular meals appropriate to your dog's age; do not "free feed" (leave food out for her all the time).
$\square$ Who will train her and how? We urge you to train using positive reinforcement methods, starting with housetraining all the way through the most advanced training you choose to pursue. One family member can be the "primary" trainer, but encourage the whole family to participate in training activities; they'll all be living with the pup, and should all learn to communicate with her consistently and effectively in a language she understands.

Make a vocabulary list of terms your dog learns and post it on the refrigerator, so everyone uses the same behavior cues. Add to the list as she learns new behaviors. Check out basic and advanced good manners training, agility, rally obedience, tricks, flyball, scent detection, musical freestyle ... the possibilities are endless.
$\square$ How will you correct her for making mistakes? Positive does not mean permissive. If your pup is well supervised she shouldn't have the opportunity to make many mistakes, but they will happen. When they do, calmly interrupt the pup's behavior with a cheerful "Oops!" and redirect her to something more appropriate. Make a mental note to ramp up your
management or training to prevent the situation from happening again.

## Prevention is key

Puppies develop lifelong habits during the first several months of their lives. Extra management effort early on can save you years of headaches later. If you don't give your pup the opportunity to learn that chewing sofa cushions is fun and feels good on sore gums, she'll earn house freedom much sooner than a confirmed cushion shredder. When you see her heading for cushions or the coffee table leg, offer her a stuffed Kong instead, or engage her in a game of tug.

If she's driving you crazy, grabbing your pants legs, and biting your hands, say "Oops! Time out!" and put her in her exercise pen for a bit. This will give you both a chance to calm down without resorting to corporal punishment. When she realizes that biting makes the fun stop, she'll learn to control her urge to grab.

Sound like a lot to think about? It should! Accepting responsibility for the life of another living creature requires serious thought and commitment. The way you care for your pup will determine whether she spends the rest of her life sharing companionship and love with you or, like too many dogs, gets passed from home to home in search of one where she will be better understood and appreciated. She deserves a lifelong loving home. They all do.

## Throw a Puppy Shower

Experienced dog owners can make a huge difference in the lives of the dogs belonging to their less-experienced friends or relatives. One of the best ways to help your friend start off on the right foot with her new dog is to throw her a puppy shower, and invite your dog-loving friends and their (well-socialized) dogs.

Send out invitations stating, "Gifts are not necessary, but if someone were so inclined, a list is enclosed of items that (name here) and her new puppy will really need." Include items on the list that range from inexpensive toys and doggie treats to big-ticket items like crates and ex-pens.

You can also suggest cost-free ways for them to contribute, and designate them all god-dog
parents! Make the party fun, with games and prizes for dogs and humans, dog-friendly cake and ice cream, and party favors for all. You can even help your friend identify the best potential doggie-playmates for her pup-to-be!

Hold the puppy shower well before your friend brings her pup home, so she'll have enough time to buy the things on the list that she didn't receive.

Gift suggestions may include:
$\square$ Gift certificates or discounts for puppy-sitting, puppy daycare, "kindergarten" class, poop scooping, transport, spay/neuter, pet insurance, etc.
$\square$ Basics such as collar and ID tag, leash, harness, seat belt, clicker, treats, stainless steel bowls, pet bed
$\square$ Grooming supplies; cleaning supplies such as Nature's Miracle
$\square$ Stuffing/chew toys, chase toys, tug toys (not to be left with puppy unattended)
$\square$ Books: Anything by Ian Dunbar, Patricia McConnell or Pat Miller.
$\neg$ Crate, baby gate, exercise pen

## Find a Holistic Vet Before you Need One

 We can't stress enough the importance of finding a good holistic veterinarian before you need one. Among other differences, selfidentified holistic practitioners tend to have a more conservative approach to vaccinations than conventional vets - important if you want to prevent the mid- to late-life health problems that some experts believe are related to a lifetime of overvaccination. Since vaccination is one of the main purposes of your first vet visits, you'll want to understand and accept the veterinarian's suggested vaccination protocol before you arrive, to avoid misunderstanding and regrets.You'll also want a reliable holistic practitioner in your corner if your dog is diagnosed with a serious condition. We receive innumerable
calls from people who are frantically seeking an immediate referral to a holistic veterinarian to treat their dog for cancer and other diseases that took a long time to develop. The problem is, it's not easy to find someone who practices the type of medicine you feel most comfortable with, and certainly almost impossible in an emergency situation.

## The Case for Kindergarten

## The benefits of puppy training and socializing classes outweigh the risks

When they were three months old, the owner of two Great Pyrenese puppies called New York trainer Nancy Strouss. "We discussed the importance of early socialization and training," says Strouss, "especially for breeds that can be aloof and difficult if they don't receive a lot of socialization at a young age." The owner agreed that her puppies would benefit from puppy kindergarten classes.

A few days after registering, the owner spoke to her veterinarian, who was adamantly opposed to the idea, says Strouss. "He told her that letting the puppies have contact with other dogs before they are fully vaccinated at 16 weeks is extremely dangerous. The owner got very upset, accused us of encouraging her to risk her puppies' health, and withdrew from the class."

Asked to advise puppy owners on the subject of puppy training and socialization classes, many veterinarians warn owners away, describing a frightening scenario in which viruses, bacteria, fungi, and parasites lurk in the air and on the ground wherever puppies breathe or walk.


They say that other dogs and puppies, potential carriers of infection, are best avoided until young puppies are "fully protected" by vaccinations or their own maturing immune systems. Most veterinarians believe it is safe to let four-monthold puppies explore the outside world, but some recommend waiting until pups are six or seven months old.

The problem is, that conservative approach may (or may not, as we'll discuss) safeguard puppies from exposure to agents of infection, but it leaves them completely susceptible to the far less easily treated effects of social isolation. Puppies learn important behavioral skills from each other, their mothers, extended families, and any other canine visitors. These lessons, say behaviorists, can't be learned from humans, however motivated or well-intentioned. They can only be learned from other dogs. Early training and play in group classes enhances dog-to-dog communication at the same time that it helps young puppies adapt to new people, new sights and smells, other animals, and the experience of travel.

So what's a responsible canine caretaker to do? Do you really have to choose between sending
your puppy to school to contract a horrible disease or keeping him quarantined so that he ends up being euthanized due to a dangerous personality disorder?

Not really. Although there are some risks associated with each approach, educating yourself about the risks will help you take a moderate path, keeping a lookout for signs of trouble, and helping you guide the development of your pup into a physically and socially healthy pooch.

## Understanding immunity

It's no wonder that so many people are misinformed about the risks of disease; few have an accurate understanding of the dog's immune system or the reason for a series of puppy shots.

When challenged by an agent of disease (an antigen), a healthy dog's immune system responds by producing disease fighters called antibodies, which are specific to whatever antigen encountered by the animal. Infant puppies receive temporary protection from disease via the placenta (in utero) and from antibodies in their mothers' colostrum or "first milk." Later, the mother's milk also contributes antibodies.

Each mother provides different antibodies depending on her history of vaccination and other exposures to disease antigens. If the mother has a well-functioning immune system, and a thorough history of vaccination and/or exposure to disease, she will likely contribute a powerful dose of protective antibodies. If, on the other hand, her own store of antibodies is impoverished, due to a dysfunctional immune system and/or a lack of vaccinations and/or exposure to disease antigens, her antibody contributions to her puppies may well be insufficient.

The protection that each puppy receives from his mother (sometimes called "passive immunity") usually lasts for several weeks and gradually fades; also gradually, his own immune system matures and begins manufacturing its own antibodies when confronted by disease antigens. Usually, this immune system maturation occurs around 14 to 16 weeks. But the exact rate at which the maternal immunity fades is highly variable from individual to individual.

This is important to understand, because as long as the mother's powerful antibodies are at work in the puppy's system, his own immune system will not produce its own antibodies in response to exposure to disease antigens.

This means that, as long as the maternal immunity is strong, neither exposure to disease antigens nor exposure to vaccines (which are weakened preparations of antigenic material) will cause him to develop the long-lasting antibodies necessary to defend him from disease.

In most puppies, the maternal immunity fades at some point between 6 and 16 weeks. Vaccines that are administered while the maternal immunity is still strong will be effectively erased from the puppies' systems by the maternal antibodies. That's why it's generally recommended that puppies be given a series of vaccinations separated by a couple of weeks - to make sure that he's not left unprotected for too long between the fade of the maternal immunity and the development of his own vaccinetriggered antibody protection.

The uncertain timing of the maternal immunity fade is also why veterinarians often recommend that puppies stay relatively quarantined until they are 16 weeks or even older.

Say a puppy receives a typical course of vaccinations at 8,12 , and 16 weeks. Conceivably, his maternal immunity could still be strong enough at 8 weeks (or even 8 and 12 weeks) to nullify those vaccinations, yet fade before his next vaccinations at 12 or 16 weeks. That could leave him vulnerable to disease - without protective antibodies - for a period of a couple of weeks.

Of course, that's not necessarily the end of the world. Exposure to a disease antigen can make an unprotected puppy sick, but it will also stimulate his immune system to produce antibodies to fight that and future exposures to the disease antigen. However, the older he is, the more mature his own immune system will be, and the better it will accomplish that task. That's why the potential "gap" in the puppy's protection is more dangerous when he's 8 weeks old than when he's 12 weeks old.

## Understanding socialization

We don't know a single trainer who feels that early socialization is not important. Indeed, this is one point that the training community agrees about.
"There is well-documented proof that unsocialized dogs are shy, nervous, timid, tend to be noisy, can be aggressive, can be difficult to train, do not adapt well to new situations, and in the extreme may live in a constant state of apprehension and fear," says New Hampshire trainer Gail Fisher. "It isn't so much that behavior problems can never be corrected," she continues, "since training can overcome most behavioral issues. Rather, the bottom line is that difficulties caused by a lack of socialization are totally unnecessary and can be avoided simply by socializing puppies."

Massachusetts trainer Gerilyn Bielakiewicz agrees. "Go visit any shelter and read the cage cards. Many dogs are homeless because they don't like children or cats, can't live with other dogs, are afraid of loud noises, are afraid of men, are afraid of everything, or are unpredictable or dangerous."

Sue Ann Lesser, DVM, conducts monthly chiropractic clinics in New York, New Jersey, Connecticut, Pennsylvania, and Maryland. About 95 percent of her patients compete in agility, obedience, field trials, and other canine sports.
"My favorite patients were well exposed to other dogs and people during the critical 12-16-week period," says Dr. Lesser. "They make veterinary visits with confidence and trust and as adults they cope well with the stresses of training and competition. One of my dear friends, Wendy Volhard, has a class at her obedience camps called Foundation Games for puppies with experienced handlers in which the puppies practice the basics of utility exercises - go outs, directed jumping, stand for exam, and so on. Years later, they sail through utility obedience training because they were exposed to the exercises at an impressionable age."
"An early start is so important," adds Ohio trainer Dani Edgerton. "If a puppy is going to attend only one class in its lifetime, I suggest that it be puppy kindergarten rather than a later class."

Elizabeth Teal, a behavioral trainer in New

York City, adds that creative owners can help any puppy interact with the outside world without an organized puppy kindergarten class, but she warns that you do need its equivalent. "If appropriate positive socialization does not occur during the window of opportunity that opens at three weeks and closes at 12 to 16 weeks, its benefits will never be internalized by the dog... By not socializing puppies during the appropriate time, we create stress factors that can affect the animals' health later in life. With certain breeds and certain environmental factors, the result is truly dangerous dogs."

## Making the decision for your puppy: The risk continuum

We all know that people make decisions based on their own experiences, values, and resources. The decision to potentially expose or protect your puppy is notable only for its complexity. You see, the usual "far left vs. the far right" scale has to be modified to encompass four extremes rather than just two.

Way out on the conservative end of the "fear of disease" scale are the people who feel that any increased risk of infection is not worth the benefits of the socialization; these are the "keep pups home until they are six months old" people. At the other extreme of this scale are the people who are comfortable with the possibility that their puppies could become ill, and who allow their puppies to socialize anywhere, anytime. Some of these people use conventional vaccination protocols; some, you may be surprised to learn, use no vaccines at all.

Then there is the "fear of social disorders" scale, which also has its extremists. On one end are those who feel that all puppies must be socialized, no matter what. These people feel that the risk of dealing with illness, or even the death of a puppy, is preferable to raising a social misfit. On the other extreme of this scale are the people who either don't know or don't care about socialization.

It can be difficult to find a balanced place on this four-ended teeter-totter, especially when you weigh one scale of risks and benefits against the risks and benefits of the other scale. But, people do!


Even if a puppy never gains this much obedience from his class, he'll gain experience and increased confidence.

New Hampshire trainer Gail Fisher says, "The risk of contracting a communicable disease is minute compared to the nearly 100 percent guarantee that an unsocialized dog will never reach its genetic potential. Since non-genetically based, distrustful, suspicious, nervous, fearful behavior is totally preventable, why would anyone recommend otherwise? Generally speaking, puppies can recover from contagious illness. Shyness lasts for life."

Massachusetts trainer Gerilyn Bielakiewicz agrees. "The best argument l've heard for early training and socialization," she says, "comes from Dr. lan Dunbar (a veterinarian and behaviorist) of Sirius Puppy Training. He says that it does no good for vets to tell people not to socialize their puppies before they are fully vaccinated if those same puppies end up dead because they can't get along with other dogs or people. Lack of socialization kills more dogs than any disease."

Even people who don't necessarily take their puppies to formal classes think it's important to provide a wide array of social opportunities for the pups. Take breeder Christine Swingle, for example. She doesn't take her puppies to kindergarten, she says. "Instead, I socialize puppies by handling them daily from birth. When they're five weeks old, I start inviting friends and family to play with and handle the pups. As they get older, the pups interact with my adult Westies, and I ask friends to bring their dogs for dog-to-dog socialization. In this way, the puppies get a good variety of exposure to children, adults, and other dogs. If they have the right attitude and character, and if given the right opportunities, puppies will socialize well without puppy kindergarten."

More proof of bad behavior than of disease No one knows what percentage of the millions of vaccinated and unvaccinated puppies that have contact with other dogs between the ages of 10 and 16 weeks contract infectious diseases, or how many die as a result, says New York veterinarian Beverly Cappel; "No one has done any studies," she says. She's not terribly worried about the health risks of puppy kindergarten, however.
"I've had a busy practice for 14 years, and I've seen only two or three cases of distemper in all that time. Parvo is more common, and it can wipe out whole litters, but even parvo doesn't occur often. Some illnesses are so rare, they're practically extinct. For example, I've never seen a case of canine infectious hepatitis, and I don't know anyone who has."

Dr. Cappel recommends only the distemper and parvo vaccines for puppies, and she usually gives them at 8,11 , and 15 weeks. "Between 12 and 16 weeks, short-term memory starts crossing over to long-term memory, and puppies begin to retain what they learn, so that's a perfect time to begin puppy kindergarten," she says.

New York trainer Elizabeth Teal argues that there is far too much behavioral science available, such as the extensive research compiled by John Scott and John Fuller (published in their book, Genetics and the Social Behavior of the Dog), for the puppy socializing question to even be a debate. "I will always risk illness over a lifetime of psychological maiming," she says. "And I say this after seeing serious illness up close. I nursed a parvo puppy into a happy, well-socialized dog."

Teal is concerned about the scary illnesses out there, but adds, "the lack of socialization frightens me more. . . Most dogs in this country are euthanized for 'behavior' problems. We're killing dogs because we don't teach them during the most accessible period of their lives where to go to the bathroom, how to greet people politely, and how to coexist with furniture.
"I don't know how euthanasia statistics compare with statistics for early death from disease, but I know that for me, the risk of infection is worth taking."

## To Choose the Right Puppy Kindergarten, Do Your Homework FIRST

Owners who decide to take young puppies to school can make informed decisions if they ask the right questions. Check with other dog owners, breeders, groomers, veterinarians, dog clubs, shelters, and pet supply stores; look in the phone book, go online, and watch for ads in newspapers and magazines. Keep an open mind: the perfect program for another person's puppy may not be ideal for yours, and vice versa. Then, go look at each school, and ask the following questions of each school you find:

What is the facility like? Is it safe, clean, and comfortable? Is it sufficiently cool in summer and warm in winter? Does the floor surface provide traction? Is there a convenient potty area and trash cans? Are cleanup supplies provided? How large is the training room? "Space is an issue," says Tracy Atkins. "If the area is too large, the puppies won't interact. If it's too small, the crowding gets stressful and fights can occur. And it should be puppy-proofed!" That means no exposed electrical cords that pups can chew, or furniture that rambunctious puppies can knock over onto themselves.

## Does the school screen its students? Some

 puppies may not belong in puppy kindergarten. Good trainers screen their applicants with care, considering each new puppy's size, age, breed, background, and personality. "Large breed puppies that are five and a half months old or older when they first come to class are a potential problem for smaller, younger puppies," says

Atkins. Does the school make its policies clear? How much do classes cost? What is the schedule? What about cancellations, makeup classes, and refunds? What are your obligations as a client?

What is the school's vaccination policy? Some schools require proof of two sets of vaccines prior to the first class. Most schools accept whatever vaccination schedule a veterinarian recommends, and a few allow unvaccinated puppies.

How large is the class? Size varies according to location (larger classes are more common in urban areas) and the availability of staff. The larger the class and the more family members who come, the more assistants an instructor needs. Most kindergarten classes have between four and 15 puppies.

Are the trainers experienced? The ability to recognize and anticipate breed-specific behavior is important in classes that welcome all puppies of every description. "Some breeds require extra effort at socialization," says Melissa Bussey at Training Tracks Canine Learning Station in Ohio. "For example, Shar-Peis tend to be more reactive and aggressive than most other breeds in my classes, and many German Shepherd Dogs have come with at least a bit of fear aggression toward other dogs." The more a trainer knows about your puppy's breed, especially if it is unusual or challenging, the better.

Are families invited? "I like my puppies' new owners to take their children to classes so they can learn, too," says Bichon Frise breeder Sandy Leon in Michigan. "The more consistent everyone's behavior is at home, the better life is for the puppy."

What happens in class? How are the puppies trained? Look for schools that emphasize positive reinforcement, praise, appropriate rewards, and meaningful lessons. "My classes are not simply play groups," says Mary Rioux-Forker. "We train the pups to sit, lie down, stay, go to a rug and hang out, walk on a lead, leave things alone,
come, be restrained, do a stupid pet trick, ignore distractions (practice impulse control), and do various behavioral exercises to stabilize temperament and get the relationship right between owner and puppy. Melissa Bussey emphasizes socialization and problem-prevention exercises. Puppies learn that meeting new people, giving up food or toys when asked, getting off furniture when asked, and standing still while being handled all mean great things for dogs. "The earlier a puppy learns that humans hold the key to all the good stuff," she says, "the better. Dogs quickly learn that pleasing their humans makes good things happen, which makes them willing and eager students. This type of training also makes visits to the vet or groomer much easier." "It is critical that early puppy training not be punitive," says Gail Fisher, "but it takes more than positive reinforcement to make a class effective. Puppy socialization classes that are all play and no training are, in my opinion, counterproductive. They teach puppies to be out of control in a group class, and they reinforce noisy behavior." Finally, don't enroll in the program that's most convenient to your home or schedule without researching it first. Pressed for time, many people sign up for the first class they find, planning to cancel if the instructor's training style is incompatible with their own training philosophies. This strategy has landed many people in the uncomfortable position of having to protest or walk out of a class when the instructor did something to their puppies that they didn't like.


## Chew on This

> Whether your puppy is teething, exercising its jaw or simply has a case of boredomlearn how to properly channel your dog or puppy's need to chew

Puppies are notorious for their ability to chew on anything and everything. If you're at all dog-savvy you know when you get a new puppy that despite your best efforts to manage and supervise, you're likely to lose at least one valuable personal possession to the razor-sharp implements known fondly as puppy teeth.

Puppies chew to explore their world as well as to relieve the pain and irritation of teething. What many dog owners don't seem to realize is that while puppies sooner or later get beyond the stage where they feel compelled to put their teeth on everything they see, mature dogs also need to chew to exercise their jaws, massage their gums, clean their teeth, and to relieve stress and boredom. It comes as an unpleasant surprise to many owners that chewing doesn't end at the age of six months when all of the dog's adult teeth are grown in.

The wolf, ancestor and cousin to our dogs, chewed to survive. His meals weren't served to him as measured rations of kibble in a stainless steel bowl. Long ago, as a pack member, he used his strong teeth and jaws to bring down his prey. He chewed through tough moose hide to consume the life-sustaining flesh beneath. He crushed elk leg bones with powerful jaws and teeth to slurp up the rich, tasty marrow inside. He chewed to eat, to live.

Neither tens of thousand years of domestication nor a recent switch to processed foods have extinguished the adult dog's need and
desire to chew. Many dogs continue a significant amount of vigorous adolescent chewing until the age of 18 to 24 months as those teeth continue to mature, and then still chew, but with somewhat less intensity, as they age.

Chewing is as basic a behavior to a puppy as a human baby sucking on a pacifier. Humans, as they grow, transition to sucking on thumbs, then lollipops, straws, sports bottles, and perhaps cigarettes. Dogs, like us, can learn to transition to appropriate objects for mature oral attention, but they never completely outgrow the need to gnaw. Given the opportunity, mature dogs will chew for as long as they live and have teeth to chew with.

Case in point: Katie, our 15-year-old Australian Kelpie who can barely hear, has difficulty walking, and whose vision is failing, still happily chews raw bones and chicken wings right alongside her younger packmates.


## Building good chew habits

Puppies develop substrate preferences for elimination in the early months of their lives, and they similarly develop chew-object preferences. Hence the inadvisability of giving your old shoes or socks as chew toys.

If you give your baby dog the run of the house and he learns to chew on Oriental carpets, sofa cushions, and coffee table legs, you will likely end up with a dog who chooses to exercise his jaws
and teeth on inappropriate objects for years to come. You'll find yourself crating him frequently even as an adult dog, or worse, exiling him to a lonely life in the backyard, where he can chew only on lawn furniture, loose fence boards, and the edges of your deck and hot tub.

Instead, focus your dog's fangs on approved chew toys at an early age and manage him well to prevent access to your stuff. In this way, he'll earn house privileges much sooner in life. By the end of his first year, you'll probably be able to leave him alone safely while you go out to dinner or shopping - or even while you're away at work.

As long as he still snags the occasional shoe, knick-knack, or other off-limits possession for a mid-day gnaw, it's too soon to give your dog unfettered freedom. When you're home, he needs to always be under your direct supervision. You may need to keep him on a leash or a tether, or simply close the door of the room you're in so he's shut in with you and can't wander into the parlor to shred your grandmother's antique lace doily while your back is turned. If you're otherwise too occupied to supervise, put him in his crate or exercise pen to keep him out of trouble.

At the same time, supply him with "legal" chew objects to keep his needle-sharp puppy teeth appropriately occupied. Stuffed Kongs, Buster Cubes, and Busy Buddies are just a few of the many interactive toys available that can keep your dog's teeth and mind acceptably busy. If you consistently supply him with desirable and acceptable chew objects, he'll eventually develop a strong preference for chewing on those same objects. He will seek these items out when he feels the need to gnaw, and ultimately your personal possessions will be safe, even when your back is turned.

## Individually appropriate

Because different dogs chew with different levels of intensity, it is impossible to make definitive statements about which types of chew products are appropriate for your particular dog. The safety of chew objects such as rawhide, various bones, pig ears, and cow hooves is a hotly debated topic. Rope tugs are wonderful chew toys for some dogs, but others chew off and ingest the strings and risk serious
gastrointestinal complications, even death.
Check with your own veterinarian and follow his/her recommendations regarding the use of these and other chew items for your dog. Regularly check the condition of any chew toys you do give your dog, and discard them when they begin to show signs of wear and tear.

One of the basic tenets of positive dog training is that it's much easier to teach the dog what to do rather than what not to do. If you program your dog's chew preferences early in life by consistently directing his attention - and teeth - to appropriate objects and preventing his access to inappropriate ones, you won't have to constantly tell him he's chewing on the wrong things.

Interactive toys can help here too. A stuffed Kong suspended just out of your dog's reach can keep him occupied and work off excess energy as he jumps and grabs at the tempting prize. Instead of giving him his bowl of food in the morning, fill the Buster Cube with his kibbles and make him work for his meal by pushing cube around to make the food fall out. He won't have the time, energy, or desire to shred your grandmother's antique afghan if he's out "hunting" for his breakfast!

Note: Some destructive chewing and other related inappropriate behaviors are a result of isolation distress or separation anxiety rather than "normal" chewing. Such chewing is often - but not exclusively - directed toward door and window frames, and occurs only outside of the owner's presence, by a dog who shows signs of stress at the signs of his owner's pending departure. Separation anxiety dogs often don't crate well either, which makes managing the destructive behavior even more challenging. If you think your dog's chewing is related to separation anxiety or isolation distress, you'll need to work with a qualified, positive dog training professional to modify the behaviors.

## The trading post

You can reduce the risk of damage to occasional ill-gotten items by teaching your pup to exchange toys for treats, using something he loves that he's allowed to have, such as a favorite chew toy or a food-stuffed Kong.

The key to this game is he learns that if he gives something up, he gets something better in return and he gets the original thing back as well. Two rewards for the price of one! Then, when he has a forbidden object, he's more likely to bring it to you to trade than to drag his prize to his cave under the dining room table for a leisurely chew. The rare occasion that he doesn't get "the thing" back won't be enough to overcome the programming you've done by playing the "trade" game with him frequently.

In order for this to work, you have to stop playing "chase the puppy" when he grabs the sofa cushion or some other forbidden object. This is often an attention-getting behavior; he's learned that grabbing "your" toys and dashing off with them initiates a rousing play session.

Here's what you do:

1. Offer him his well-stuffed Kong and say, "Take it!" Have him on a leash if you think he'll run off with it.
2. Give him a little while to get fully engaged in chewing, and then say "Give!" or "Trade!" in a cheerful tone of voice and offer him a handful of irresistible treats, such as small bits of chicken or cheese.
3. Hold the treats under his nose and let him sniff. It may take him several seconds to think about it, but eventually he should drop his Kong and start eating the treats. Don't let him gulp them! Hold the tidbits so he can only take them one by one.
4. When he drops the Kong, say, "Yes!"
5. While he is still nibbling, reach down with your other hand and pick up the toy.
6. Let him nibble a bit longer, then offer him the Kong again.
7. Repeat the exercise several times. Then end the game by giving him back his Kong and letting him chew to his heart's content.
8. Play this game at every opportunity, whenever he's engaged in chewing on his toys on his own,
or whenever you feel like initiating the game, until he'll give up his chew object easily on your "give" cue.

## Troubleshooting

What if the game doesn't always go as smoothly as you might like? Here are some of the challenges you may face:

- Your dog may not be willing to drop his toy in exchange for the treats in your hand. Try dropping the treats on the floor in a little Hansel-and-Gretel-trail. Lots of dogs are more willing to give up their valued possession if the treats are within easy reach on the floor. Then, while he is following the trail to your hand that's still holding a reservoir of treats, pick up the Kong with your other hand.
- Your dog may lose interest in his toy after he realizes you have yummy treats in your hand. Try using less valuable treats, or a more valuable chew toy. Or simply play the game when he happens to be chewing on one of his toys.
- Your dog may be a resource guarder. If he growls, snaps, or even stiffens and looks angry when you try to trade with him, you should STOP practicing this exercise and seek the help of a qualified and positive training professional to help you resolve the resource guarding challenge.

Meanwhile, supervise him very closely to prevent his access to forbidden objects so you don't put yourself at risk for being bitten because you have to take something away from him.

## Leave it

You can also teach your dog to respond to your cue to leave something alone before he sinks his sabers gum-deep into a treasured possession. To teach "leave it," have your dog on leash in front of you. Show him a tasty treat, tell him "Leave it!", and let him see you place it under your shoe. Freeze-dried liver cubes work well for this; they are high-value for the dog, but firm enough that
they aren't easily squished under your foot.
Your dog will probably dig, claw, and even chew at your foot to try to get the treat. Let him. This is an exercise in patience for you as well as an exercise in "Leave it!" for him. Be sure to wear durable shoes for this exercise. Sandals may leave you with bloody toes, and patent leather will be permanently scratched.

Your dog may give up easily when he realizes he can't get the treat, or he may be very persistent. Either way, you're just going to wait for him to give up. The instant he looks away from your foot, "mark" the moment with the click of a clicker or word such as "Yes!" and feed him a very tasty treat. If he continues to look away from your foot, keep clicking and treating at a high rate of reinforcement - lots of clicks and treats. If he returns his attentions to the treat under your foot, just wait for him to look away again. Do not repeat the cue. When he looks away again, click and treat - again, at a high rate of reinforcement.

When he can control his urge to maul your foot for at least five seconds, carefully move your foot off the treat. If he tries to grab it, simply cover it back up with your foot. You don't need to repeat the "Leave it" cue. In a surprisingly short time, he'll ignore the treat on the floor. Now pick it up, show it to him again, repeat the "Leave it!" cue and try it under your foot again, still with a high rate of reinforcement. Remember to keep your cue cheerful; you're not trying to intimidate him away from the forbidden object; you're just giving him information.

When he's reliably ignoring the treat, you can move a few inches away from it. Don't get too confident! The farther you move from the treat, the more likely he is to think it's okay for him to have it. Take it slow. Set him up to succeed, and in time you'll be able to tell him "Leave it" and leave the object unattended.

You can translate this exercise to real life as soon as your dog understands to look away from the object when he hears the "Leave it!" cue. Set some tempting items on the floor, put him on leash, and walk him past the objects, just out of reach. The instant he looks at an object, say "Leave it!" in a cheerful tone, and stand still. He may stare at and strain toward the object. Just wait. When he gives up and looks away from the forbidden object, click and treat. Then continue
toward the next object.
When he'll do this reliably without the leash tightening at all, you're ready to try it off leash. Then, as you supervise your pup's antics, if you see him coveting an inappropriate object, just say, "Leave it!" in that cheerful tone, and be ready to click and treat when he turns back toward you.

Once you've taught your dog the "trade" and "leave it" games, the rest is up to you. Of course, you'll continue to supervise him closely to minimize his access to forbidden objects and redirect his attention when you see him covet an inappropriate one.

If, however, he does happen to find something he's not supposed to have, odds are he'll bring it to you to exchange for something better. Next time you see your dog with Aunt Ida's antique lace doily in his mouth, instead of going into "Omigod the puppy has the doily!" panic mode, walk to the refrigerator, take out a bag of his favorite treats, and calmly initiate the trade game. You'll be surprised by how easy it is..

## Potty Training a Puppy in ColdWeather

## Five things to do when your dog won't potty outside in bad weather

Nasty, cold, blowing, snowing, sleeting, rainy day out and your dog won't go out to potty? I can relate; I don't much like to go out in bad weather either - even if I don't have to poop and pee out there. Help is on the way. Here are five things you can do to help improve your dog's winter "eliminate outside" outlook:
1.) Go out with her. She may be much more willing to brave the elements if her beloved
human is with her. If you go with her you can keep her mind on her business, use her potty cue, get her to eliminate more quickly, and you will know if she's empty or not. Don't whine; if she has to go out, you can go out too!

## 2.) Condition her to wear a coat and boots.

If she's a short-coated, easily frozen kind of dog (think Chihuahua), you can hardly blame her for not wanting to go out on those wet, windy, or freezing days. When she's happy to wear a coat, select the appropriate one for her from her ample wardrobe - a sweater for cool, blustery, fall days; a raincoat for wet ones; and a comfy down vest over the sweater for the days with real hypothermia potential.
3.) Carry a large umbrella. A big golf umbrella can completely protect a small-to-medium-sized dog from rain and snow, and partially protect a large one. While your thick-coated Great Pyrenees and water-resistant Labradors ought to be able to tolerate a little inclement weather, your thincoated Great Dane might object. Remember to condition your dog to love your umbrella before you actually use it for weather purposes.
4.) Build a covered potty area outside, and shovel a path to it. Your dog will be happier to do her stuff outside if she has a spot that's sheltered from wind and blowing snow or rain. Make it as close to the house as possible, so she doesn't have to go far to get to it, and you don't have to shovel as much snow. Be sure to build the shelter tall enough that you can stand under it, too!
5.) Teach her to use an indoor litter box. Or at least put a litter box in your garage, or on your covered porch. The cold-aversive part of me thinks this is the best solution of all. If your dog has been really well trained not to go indoors you may need to start with teaching her to use her litter box outside, and when she'll use it there, bring it indoors. At least you can do the training on warm sunny days, and use one or more of the other options to protect her outside on nasty days, until you're ready to move the box indoors.

Purina makes small litter boxes and "secondnature," a litter box especially for dogs (although many dog owners use cat litter in their dog litter boxes). Some pet owners find puppy "pee pads" to be an adequate replacement for a litter box. But there are also a number of products on the market that simulate a bit of lawn for your dog's indoor elimination. The "Porch Potty" and the "Pet a Potty" are both boxes that accommodate the use of either real or artificial grass turf and contain any liquid runoff. The Ugodog is a similar system that employs the use of a mesh grating instead of a grass or grasslike surface for the dog to eliminate on. These products are fairly expensive, but may be just the thing for your fair-weather dog..

## A Quick Guide to Puppy Shots

## Less is sometimes more

We've come a long way, baby - on paper, at least. In the past decade, the veterinary profession's overall attitude toward vaccination has evolved to a point that can be tentatively termed progressive.

In 2002, the American Veterinary Medical Association issued a policy statement that urged veterinarians to "customize" vaccine protocols for individual patients, since there is "inadequate data to scientifically determine a single best protocol" for initial or repeat vaccinations.

A year later, the prestigious American Animal Hospital Association (AAHA) released its landmark canine vaccination guidelines, which were updated in 2006. The AAHA guidelines separate vaccines into different categories - core, noncore, and not recommended at all - and suggest that veterinarians revaccinate for core diseases such as parvovirus and distemper no more than every three years.

Most veterinary universities have followed
suit, teaching their graduates that, depending on the disease in question, yearly vaccines are now the exception, not the rule.

But while the idea of "annual shots" should be as antiquated as wringer washing machines, it is alive and well among some veterinarians who either have not taken the time to understand the new paradigm - or have chosen to ignore it.
"We haven't gone anywhere in some cases, and I think there are several reasons," says veterinary immunologist W. Jean Dodds of Santa Monica, California. One of them is simply inertia.
"The veterinary profession has been convinced for so long that vaccines were essential," and that sort of thinking is hard to change, particularly when vaccine labels can be misleading, says Dr. Dodds. "I think veterinarians assume the label [identifying a given vaccine as a one-year product] is a requirement, and interpret it more strongly than the vaccine companies intended," Dodds says. "And the companies don't try to dissuade them because that's what the USDA has told them to say."

Bureaucracy aside, many veterinarians and veterinary practice managers may be concerned that abandoning annual vaccinations will hurt their practices' bottom line.

Bob Rogers, a veterinarian and vaccination critic from Spring, Texas, refutes that fear. When he switched to a reduced vaccination schedule, "my vaccine income dropped 7 percent, but my overall income went up 20 percent. When people find out they don't have to spend a whole lot on vaccines, they spend that money on something the dog really needs, like teeth cleaning."

One impetus for reevaluating vaccine protocols has been concern over adverse vaccine reactions, both acute and chronic. All veterinarians recognize signs such as anaphylactic shock (a severe allergic reaction), or flu-like symptoms such as low-grade fever, malaise, diarrhea, and loss of appetite. But they may not make the connection between vaccinations and temperament changes (particularly after the rabies vaccine), seizures, autoimmune diseases such as hemolytic anemia and thrombocytopenia (reduced platelet count), or hypertrophic osteodystrophy (severe lameness in young growing dogs), which may surface weeks or months after vaccination.

And many owners are equally oblivious. "If an owner sees her dog hiding under the table after a vaccination, or the dog doesn't want to be touched, they don't call their vet with that information," Dr. Dodds says, but instead might dismiss it as the dog having an "off" day.
Dr. Dodds notes that some advocates for minimal vaccination have done more harm than good by overstating the issue, implying that virtually everything is caused by what's in that syringe.
"Many environmental challenges can cause problems, and vaccines are just one of them," says Dodds, ticking off other possible suspects, such as topical flea and tick products, and environmental pesticides and insecticides.

Personal experience is a powerful motivator, and some vets insist on vaccinating annually for diseases such as parvo because they remember the widespread fatalities when the disease was prevalent decades ago.

Dr. Ron Schultz, chair and professor of pathobiological science at the University of Wisconsin's School of Veterinary Medicine in Madison, notes that the flip side is true, too: Veterinarians whose own animals experience vaccine reactions are reluctant to reflexively vaccinate.
"Boy, are they ever believers," says Dr. Schultz, who was a member of the AAHA task force that revised the 2006 guidelines. "As I often remind them, 'When it was your animal, you didn't care whether this occurs in one out of 10,000 animals, did you? It was your one."'

## Core vaccines

The 2006 AAHA canine vaccination guidelines single out four vaccines that are "musts" for every puppy: canine hepatitis (the adenovirus-2 vaccine), distemper, parvovirus, and rabies.

The guidelines recommend that the first three vaccines in that list be administered in a three-part puppy series, boostered at one year, then readministered no more than every three years.

Schultz notes that "no more than" could also be interpreted to mean "never again." He points to studies that show that dogs properly immunized in puppyhood maintain lifetime immunity to canine hepatitis, distemper, and
parvovirus.
"Every three years is probably a completely arbitrary number," Dr. Rogers adds. "I've told my clients that after one year of age they don't need to vaccinate anymore." Rogers estimates that in nine years, he has used this protocol on some 30,000 dogs - "and I haven't had one vaccine 'break' [failure]."

But he has seen a welcome decrease in adverse reactions. Dr. Rogers says he used to see at least one animal a week suffering from an adverse reaction to a vaccination. Now he's down to three a year - almost always Dachshunds, a breed that he finds particularly vulnerable to vaccine reactions.

Other at-risks breeds include Akitas, Weimaraners, Standard Poodles, American Eskimo Dogs, Old English Sheepdogs, Irish Setters, Kerry Blue Terriers, and Cavalier King Charles Spaniels.

Even if a veterinarian is reluctant to stop vaccinating for these core diseases after the oneyear booster, Schultz says that "every one of the major vaccine manufacturers has demonstrated that their current product, or one they've had for quite some time, has a minimum duration of immunity for three years," regardless of what the label says.
"Only one company actually did it in a way that allows them to put 'three year' on the label according to USDA requirements, but it's meaningless," he says. In other words, parvo, distemper and canine hepatitis vaccines labeled "one year" have been proven to be effective for at least three.

Schultz also reminds that "other than rabies, there is no requirement to vaccinate with anything. And there's no legal implication to any vaccine label with regard to duration of immunity, except for rabies."

## Why rabies is different

As those caveats suggest, the fourth core vaccine, rabies, offers far less wiggle room, because its administration is dictated by state laws - laws that were put into place to prevent this zoonotic disease from being transmitted to humans.

An annual rabies "shot" was once the norm; in recent years, most states have changed their
laws to allow a three-year vaccine, though there are a few stragglers that stick to annual rabies vaccination requirements.

The one-year and three-year vaccines on the market are actually the same product, capable of conveying the same duration of immune response. But vaccines that are labeled "one year" satisfy the legal requirement for rabies vaccination for only that long. Legally, a dog who receives a one-year vaccine must get vaccinated again a year later, even if he lives in a state with a three-year law, and even if titer tests indicate that he's protected against rabies.

To defend your dog against needless (and in the opinion of holistic veterinarians, potentially harmful) overvaccination against rabies, it's imperative that you know the rabies requirement in your state. If you live in a state with a threeyear law, make sure your veterinarian administers a three-year vaccine.

Also be sure to check your records; in an effort to increase client compliance, some veterinarians mail out rabies revaccination reminders after only two years to avoid a lapse in the three-year coverage that a given state law mandates.

Dr. Dodds notes that the rabies vaccine causes the greatest number of adverse reactions. As a result, owners of chronically ill dogs, or those who have had previous vaccine reactions, might want to consider applying for a rabies waiver.

To obtain a rabies waiver, the dog's primarycare veterinarian must write a letter indicating why vaccinating the dog would be an unsound medical decision based on his health status. Though a rabies titer is not required - and can be expensive, from $\$ 75$ to $\$ 150$, depending on your location - Dodds nonetheless recommends doing one.
"Let's say down the road there is an allegation that your dog bit someone," she says. Even if the owner has obtained a rabies waiver, it does not exempt the dog from the possibility of being euthanized so that his brain can be examined - the only definitive diagnostic test for rabies. "If you've got the titer as proof that the animal has immunity, then the animal won't be automatically impounded or destroyed."

Dodds notes that some municipalities, such as Los Angeles County, have decided not to accept rabies waivers. Others will tell callers that they do
not, but on receipt of the vet's letter and titer the responsible public health official will review the case and may issue one anyway.

Because relatively few people request them, rabies waivers are a murky area that municipalities handle on a case-by-case basis. But Dr. Dodds worries about those owners who apply for them even though they do not have a sick dog; instead, they simply believe that the rabies vaccine has a longer duration of immunity than three years, and that the law is requiring them to overvaccinate.

While Dodds might agree in theory (the proposed rabies challenge study she and others are actively pursuing hopes to prove just that), she can't condone the practice. As their numbers grow, such noncompliant owners increase the risk of triggering legislation that might bar the practice of waivers altogether - and in the process force their ill and immunocompromised counterparts to submit to vaccinations that could make them sicker, or worse.

## Noncore vaccines

While the AAHA guidelines do not consider core vaccinations negotiable, noncore vaccine are, with their use determined by a dog's risk factors.

One looming consideration is geography: In many parts of the country, leptospirosis and Lyme disease are simply not prevalent. But in areas where these "noncore" diseases are endemic, owners are faced with tough decisions about less-than-perfect vaccines.

For example, leptospirosis, which is most often spread through contact with the urine of an infected animal, has 200 different serovars, or strains. Only four strains (icterohaemorrhagiae, canicola, grippotyphosa, and pomona) are covered by vaccines, which themselves are notoriously shortlived.
"The antibodies only last a short time in the body; they can be measured only by titers for one to two months, and [the titer levels] are low in the first place," Dodds says. The vaccine manufacturers, in turn, maintain that a vaccinated dog is protected by its cell-mediated immunity, which cannot be measured by titers.

For dogs at high risk for leptospirosis, which has diffuse symptoms and can cause liver
and kidney failure if caught too late, Schultz recommends using the four-strain vaccine instead of the two-strain product (which addresses the icterohaemorrhagiae and canicola serovars), first at 14 to 15 weeks (but not before 12 weeks), repeated two to four weeks later. Subsequent doses are administered at 6 months and one year, and thereafter every six to nine months.

Even so, Schultz notes, "I find there's still a fairly high percentage of dogs that do not respond to the vaccine." Plus, of all the bacterin vaccines, leptospirosis causes the most adverse reactions. (For this reason, many holistic veterinarianss administer it separately and weeks apart from other vaccines, a practice they recommend with the rabies vaccine, too.)

The pros and cons of the Lyme vaccine are not any easier to navigate. In some areas where the disease is endemic, Schultz says practitioners are no longer vaccinating because they believe they are seeing as many vaccinated dogs with clinical disease as unvaccinated ones.

Instead of administering the vaccine, some owners are choosing to treat their dogs prophylactically with antibiotics if they suspect a tick bite.

Regardless, good tick preventive is key, whether it's in the form of an insect-repelling herbal spray or a systemic flea and tick product, though the more holistically oriented tend to avoid the latter because it exposes a dog's body to still more chemicals.

If owners choose to vaccinate for Lyme, both Dodds and Schultz recommend using the recombinant vaccine instead of the older bacterin one, which can cause symptoms similar to the dis-ease itself, such as lameness and joint pain.

The recombinant vaccine does not contain the additional antigens that are in the bacterin vaccine, but instead contains only outer surface protein A, the antigen that inactivates the tick when it takes its blood meal, which is the point at which the disease is transmitted.

As a rule of thumb, Schultz does not recommend the vaccine for dogs living in an area where the rate of infection is less than 10 percent. "Greater than 50 or 60 percent, then give it some serious thought."

In the case of both Lyme and leptospirosis,
which can be treated with early invention and antibiotic therapy, Dodds says that involved, observant owners who note any early and sometimes vague symptoms can literally save their dogs' lives.

The condition commonly known as "kennel cough" is addressed by other noncore vaccines, including canine para-influenza virus (notated as CPiV or simply called parainfluenza) and Bordetella.

Unfortunately, few dog owners understand that kennel cough is a complex syndrome rather than an individual disease attributable to one specific pathogen. In addition to a buffet line of various viruses and bacteria (including the two mentioned above), factors that make a dog susceptible to kennel cough include stress, humidity, gasses such as ammonia from unhygienic environments, and nitrous oxide from exhaust fumes. That's why a dog who received a parainfluenza or Bordetella vaccine may well still contract kennel cough.

Dogs who get out a lot, such as those who visit dog parks or dog shows, will be regularly exposed to many factors that can cause kennel cough. These exposures, in essence, will "vaccinate" the dog naturally, as his immune system learns to recognize and mount a defense against the ubiquitous pathogens. In contrast, dogs who lead highly sheltered, nonsocial lives may become quite ill in the rare event that they are exposed to the kennel-cough pathogens.
"If any dog needed a kennel-cough vaccine, it would be one that's never around another animal," says Dr. Schultz. If such a dog had to be kenneled unexpectedly, a dose of the intranasal Bordetella vaccine might not prevent the disease entirely, but it could mitigate its severity, which is better than nothing.

According to Dr. Schultz, when properly immunized dogs are exposed to infectious material of those "core" diseases, he is confident they will not contract the disease. He can't say the same for leptospirosis, Lyme disease, or kennel cough; the existing vaccines are just not that effective or long-lived.

Dr. Schultz concludes about noncore vaccines, "No matter what you do, there's going to be a risk. And that's what we really have to measure."

## Not recommended vaccines

AAHA has various reasons for putting a vaccine in its "not recommended" category. One is simply a "lack of experience and paucity of field validation of efficacy," which is the case with the vaccines for rattlesnake bites and periodontal disease.

The giardia vaccine is on the "no" list because it does not prevent a dog from getting infected - only from shedding the disease. Similarly, the adenovirus-1 vaccine earns the red light because it can cause "blue eye," a clouding of the cornea, and because the core adenovirus- 2 vaccine already protects against it.

In the case of coronavirus, the AAHA task force made the point that the disease is simply not prevalent enough to warrant vaccinating for it.
"People don't have a clue that coronavirus doesn't make dogs sick," says Dr. Rogers, noting that puppies less than six weeks old develop a loose orangey stool that resolves on its own within 24 hours. "Puppies over six weeks of age are immune to it whether vaccinated or not."

Indeed, he says, vaccine companies have had difficulty testing the vaccine on sick dogs because none can manage to contract it. But the vaccine can be licensed by the USDA because it does prompt a dog's body to produce coronavirus antibodies.

## More Is Not Better

Veterinarians often give combination vaccines that Dr. Dodds crisply refers to as "wombo combos." She doesn't recommend the use of these combination (or "multivalent") vaccinations, largely because they typically include vaccines that she considers unnecessary and potentially harmful.

One very common multivalent vaccination, the区HLPP, " contains three "core" vaccines (distemper, hepatitis, and parvovirus), and two more controversial "noncore" vaccines (leptospirosis and parainfluenza).

Sometimes these combination vaccinations are simply called " 5 in 1 " or " 6 in 1 " vaccines. Owners who bother to try to determine the identity of the five or six vaccines in the "shot" are often puzzled when they discover that the numbers may not add up. That's because the canine-hepatitis component protects against both adenovirus-1 and -2 , and so counts as two diseases instead of one.

Dog owners can insist that their vets administer only the vaccines they approve; vaccines for all the core diseases are available in an individual ("monovalent") form. However, not all veterinarians stock monovalent vaccines. Ask your veterinarian's receptionist if these can be ordered in advance of your appointment. A good vet won't mind this request (although you might have to pay more than you would for vaccines she already carries); a great vet will already have them in stock!

## Jean Dodds' Minimal Vaccine Use Vaccination Protocol

Dr. Dodds notes that this protocol is for use in those dogs for whom minimal vaccination is desirable or advisable. She stresses that it is her recommendation only, and does not imply that different protocols recommended by other veterinarians are less satisfactory.

| AGE OF PUPPY | VACCINE TYPE |
| :--- | :--- |
| $9-10$ weeks | Distemper and parvovirus, MLV (e.g., Intervet Progard Puppy DPV) <br> 14 weeks <br> $16-18$ weeks (optional) |
| Same as above <br> 20 weeks or older <br> (if allowable by law) | Rabies |
| 1 year | Distemper and parvovirus, MLV <br> Rabies, killed 3-year product (give three to four weeks apart from <br> distemper/parvovirus booster) |

## Managing your veterinarian

Even if your veterinarian continues to recommend annual vaccines, as a client and consumer you have the right to request a different protocol. Depending on your approach, the veterinarian might be more willing to modify his or her suggested vaccine schedule. But some can prove to be stubbornly entrenched in their position on vaccination.

Schultz's own secretary was fortunate when she was unable to get past her veterinarian's insistence on revaccinating her dogs. In frustration, she handed the phone to Dr. Schultz, who has the same sort of name recognition in veterinary circles as Tom Cruise does in most American households.

After a brief exchange, Schultz returned the receiver to his secretary, who now found the vet more than willing to accede to her request for a minimal vaccine schedule.

For those who cannot put one of the world's foremost veterinary immunologists on the horn with their veterinarians, Schultz recommends the next best thing: printing out the AAHA canine vaccination guidelines, highlighting the pertinent information, and bringing them along to the appointment.
"It really works; it helps," he says. "AAHA is an esteemed organization that sets the highest standards for small-animal practice. Here's what its expert panel recommends. How do you argue with that?"

The fact that you might have to argue - or at least debate - with your veterinarian to arrive at an appropriate vaccine schedule might be regrettable, but it's hardly unexpected, given the very human resistance to change.
"It's an evolutionary process, not a revolutionary one," Schultz concludes wryly. "Nothing is revolutionary in medicine."

