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The Whole



Dog Journal™

A monthly guide to natural dog care and training

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On Vacation

I'm taking two weeks off – and my dog is, too!

BY NANCY KERNS

Lots of people take vacations in the summer – and I know, because I usually babysit their dogs when they leave! I enjoy having my friends and family members' dogs come and stay, and of course, while they are here, I press the canine members of the "family" into service. They have to model for the magazine, eat the foods, treats, and chews that we're reviewing, sleep on "test" beds, wear "test" collars and leashes, etc. Fun for me, and I hope, fun for them, too.

But as I write this (in mid-June) I'm about to leave for my *own* vacation – the first two-week vacation I've taken in my adult life! This has required that I get this issue to the printer a little earlier than normal – no small feat – and arrange for a dog-sitter for my dog, Mokie.

On several occasions, Mokie has stayed for a night or two with my good friend and frequent model for the magazine, trainer Sandi Thompson of Sirius Puppy Training (seen in this issue, *again!*, modeling proper loose-leash training techniques, starting on page 12). But for a dog-sitting duty of more than two weeks, you have to look to family.

So Mokie is going to my sister Pam's house. Pam and her husband Dean have two Jack Russell Terrorists (er, Terriers), Patrick and Sophie. You've seen their pictures occasionally, usually when I needed a picture of a dog doing something naughty! These dogs don't know the definition of the word "sit," much less "down," "shush," or "for crying out loud, OFF!" But they completely adore my sister, who *worships* them, and they appear to love Dean, too. Does Dean love them? I think Dean really loves *Pam*, the dogs amuse him, and he's an awfully good sport.

Mokie loves it at Aunt Pam's house. They have a dog-door, a yard full of squirrels, and baskets full of toys, and they let the dogs sleep with them on and even in the bed, which Mokie *loves* to do. Plus, there is a lot of delicious food there (Pam is a chef), and it is shared so freely with dogs that all a dog has to do is make a little whimper and *voila!* Bits of steak or something equally delectable fly into that dog's mouth! Those dogs have trained Pam well. I've had Mokie on a little diet getting him ready for the weight he's sure to gain on *his* vacation. He's going to have a blast, and so am I!

TOP PRODUCTS?

Don't forget that we are still looking for extra-cool dog care or training products to feature in our year-end "Gear of the Year" showcase. We need plenty of time to order and test these products ourselves (plus we're always working a couple of months ahead of the cover date), so get some information about your favorites to us as soon as possible! You can mail your suggestions to the editorial office address (see above right), or e-mail them to WDJ_Top_Products@aol.com. Please include some clues about how we can find the product: its manufacturer's name and location, for example, and/or the name and location of the place you found it. And, yes, if you have a picture of your dog enjoying the product, we'd love to have that, too!

I'm *most* looking forward to coming home from my vacation to test one product that I had only a tantalizingly short experience with a couple of years ago. For the scoop, check out "Letters" on page 22. Ciao!

NK

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

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Your Pet's Pet Peeves

Five ways you annoy and confuse your dog (and how to fix them).

BY PAT MILLER

Eavesdrop on a group of dog owners discussing their dogs, and along with a lot of brags about newly trained behaviors and hard-won trophies and titles, you're likely to hear a fair number of complaints about the annoying things their canine companions do. Well guess what? If you could eavesdrop on a pack of dogs at the dog park, you might well hear a litany of things that humans do to annoy their dogs!

Of course, dogs can't talk, and aside from a few animal psychics we can't claim to really know what they're thinking, but we can make some pretty good guesses. If we *could* take a survey, compile the results, and list our dogs' top five pet peeves, I'm guessing here's what they might tell us:

1 THEY TREAT ME LIKE A MONKEY!
Dogs are canids; humans are primates. Our two species have

hardwired behaviors that make us what and who we are. The physical differences are obvious – dogs have fur and tails, and walk on four legs. We are naked and tailless, walk on two legs, and have opposable thumbs.

The behavioral differences aren't always as noticeable, but they are well-documented. To their credit, dogs are far better at observing, analyzing, and manipulating the behavior of humans than most humans are of dogs. For example, current thinking about the history of the dog-human relationship now holds that rather than humans deliberately domesticating dogs, it's more likely that dogs adopted humans, recognizing early man's leavings as a reliable source of food, with the boldest and tamest members of the dog packs self-selecting for ever-bolder-and-tamer genes in their pups. Eventually, Dog was sleeping at the hearth of Man.

Still, they are dogs, not furry, four-legged

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WHAT YOU CAN DO . . .

- **Make a commitment to improve your relationship with your own dogs by fixing the things you do that annoy them.**
- **Be aware of your body language around strange dogs – don't annoy them with rude primate behaviors.**
- **Read *The Other End of the Leash*, by Patricia McConnell, PhD, to advance your understanding of the relationship between canids and primates.**

humans, and as dogs, they have an inherited package of social behaviors that differs significantly from ours. We approach other humans head-on, make direct eye contact, and reach out to shake hands, hug, and kiss. Dogs generally approach each other from the side, avoid direct eye contact unless they intend to challenge, and if one dog puts a paw "around" another, it's probably an aggressive move (unless done in mutually agreeable play).

Yet we insist on imposing our primate greetings on dogs. Not just on our dogs, who might reasonably be expected to tolerate rude behavior from their own humans, but even on strange dogs we encounter. Watch any random group of humans greet dogs that they don't know. From very young children all the way to senior citizens, the majority will try to pat dogs on top of the head, gaze meaningfully into their eyes, even hug and kiss them.

Even those of us who know better do this! I hug and kiss our dogs, especially Dubby, the Scotty, who is most tolerant of



You should resist hugging and/or kissing dogs unless you know them very well, and you have worked to condition them to tolerate, or, better yet, enjoy this type of contact.

my monkey-ness. I can't help it – he's *so huggable!* He puts up with my attentions in exchange for the pleasure of lying on his back in my lap and getting a tummy rub, which he adores. I used classical conditioning – associating the joy of tummy rubbing with the less desirable hugging – to get him to accept, perhaps even enjoy, human arms around his fuzzy body and human lips on the top of his head and the tip of his nose. I'm much more careful to use appropriate greetings with dogs I don't know, however!

You have a couple of options if you want to avoid annoying dogs with primate social behaviors. With strange dogs, your best bet is to avoid direct eye contact, offer a hand slowly, palm up, and reach under the chin to scratch rather than over the head to pat, kneel to greet rather than bending over from the waist, and **DON'T HUG OR KISS!**

With your own dogs, you can either avoid egregiously primate behavior, or condition your dog to enjoy pats, hugs, and kisses by associating them with really good stuff – like tummy rubs, treats, ear scratches, toys, and play.

Remember, this is not just about greeting. If your dog barely suffers your head-pats, and you think you're rewarding him for a desirable behavior by patting him on the head, think again – you could actually be punishing him, thereby decreasing the behavior rather than reinforcing it. Watch him the next time you reach to pat his head. Does he close his eyes blissfully and lean into your hand? If so, then he really likes it! But if he moves away, flattens his ears, ducks his head or otherwise looks less than joyful, it's time to rethink your primate behaviors.

2 THEY LEAVE ME ALONE TOO OFTEN! Canids and primates are both social species; it's one of the reasons we get along with each other as well as we do.

In addition to the need for food, water, and some amount of shelter from the elements, we share an inborn need for close and regular interaction with others from our social group.

My husband and I moved to Maryland from a state whose culture held the common view that dogs belong in the backyard, preferably in a pen. My husband, who was director of the city animal services division, was taken aback by the number of calls he got from owners asking for help catching *their own dogs*. In each case, the dog had escaped from his pen and, although still in a fenced yard, could not be recaptured by



Make it a point to frequently “catch” your dog when he’s doing what you’d like him to do without being told to do it, such as settling himself down and lying quietly near you while you work. Occasionally reward this behavior with praise and a treat.

the owner. Paul finally asked one caller why he even *had* a dog, if all he did was keep it in a pen in the yard. The owner answered, “I just like looking out the window and seeing him there.”

Keeping a dog in a pen 24/7 falls woefully short of meeting a dog's needs for mental and physical stimulation. I doubt there are many WDJ readers who would consider a pen in a yard to be an adequate environment for a canine companion. Still, I would bet that many otherwise responsible dog guardians fall somewhat short of meeting their dogs' needs. If your dog is crated at night and lies around on his foam dog bed all day waiting for you to come home from work, you'd best be setting aside some quality morning and evening time for Rover.

An on-leash walk around the block is an exercise *hors d'oeuvre* for many dogs. Barring physical infirmity or other frailty, every dog deserves a good aerobic workout – if not every day, at least every other day. If you don't feel like a hike in the hills with your dog frolicking on a long-line, or off leash with a solid recall, at least give him a good round of Frisbee or tennis ball in the backyard on a reliably frequent basis. Not only will he be healthier, but it will help with behavior problems as well. A tired dog is a well-behaved dog.

While you're at it, don't forget mental exercise. When's the last time you and Rover learned something new together?

Maybe it's time the two of you signed up for a class on freestyle or rally obedience. Other brainteasers? Find a good book on teaching tricks, or a copy of the “My Dog Can Do That” board game, and start having more fun with your dog while challenging canine and human brain cells.

Next time your dog brings you his leash or a toy, and says he wants to go for a walk or play with you, don't dismiss him in annoyance and promise him a walk on the weekend. If you just want something to look at, get a picture of a dog and hang it on your wall. Life is short – play now!

3 THEY IGNORE ME WHEN I'M GOOD! Dogs may not be able to articulate the principles of operant conditioning, but they understand them perfectly – especially the part about “Behaviors that are reinforced will increase.” The flip side of that says, “Behaviors that are not reinforced will decrease and eventually extinguish.”

We are a busy culture. We tend to ignore our dogs when they are behaving themselves, and pay attention when they are being difficult. By doing so, in essence we are punishing appropriate behaviors, and reinforcing inappropriate behaviors. That's backward!

Dogs must find it frustrating when they perform a beautifully appropriate and rewardable behavior (such as sitting to greet

you) and you are oblivious.

“Hey!” your dog thinks. “I’m sitting! Don’t I get a Click! and treat? Or at least a word of praise and a scratch behind the ear?”

Preoccupied with planning dinner, or tomorrow’s budget meeting, you walk right past your sitting dog.

“Scuse me,” your dog says as he puts his paws up on your \$400 business suit and snags a thread. “Aren’t you supposed to reward me for sitting to greet you?”

“Not now, Rover!” you snap as you push him away.

“Well,” he sighs, “at least she spoke to me and touched me. I’ll have to try jumping up again next time.”

It’s easy to forget to pay attention to good behavior. You’re busy on your computer keyboard, and he’s sleeping quietly in the corner. He’s finally calm, and you don’t want to rile him up again. Just quietly croon to him, “Gooooood boy,” in a low voice. Or lean over and gently drop a treat in front of his nose. Make a pledge to notice (and reinforce) your dog’s good behavior at least three times a day. You’ll be surprised how easy it really is.

4 HUMANS ARE SO INCONSISTENT! Dogs don’t understand special occasions, or “just this once.” They do best with structure and consistency. If you let your dog up on the sofa today, don’t be surprised if he jumps up and makes himself at home tomorrow while you’re off at work. The best-behaved dogs are generally those who live in structured, consistent environments – where they can learn early on what works, and what doesn’t.

The best way to avoid confusing your dog with a lack of consistency is to set clear house rules and make sure the whole family follows them. Some of the things you may want to address in your family “Dog Rules” meeting might include:

- Is the dog allowed on any furniture? Some furniture? All furniture?
- Where will the dog sleep? In a crate? On someone’s bed? In whose room?
- When and where is he fed? Who is responsible for making sure he gets fed?
- Where is his bathroom? In the backyard? Anywhere in the yard, or in a designated spot? Who is his bathroom monitor?
- Who will train him? One person? The

whole family? How do we make sure everyone is using the same training methods, philosophies, and cues?

- What games are okay to play? What are the “rules” of the games?
- What do we do about undesirable behavior? What if we “catch” him having an accident in the house? What if he tries to nip? What if he barks too much? What if he chews something? What if he chases the cat?
- Who will walk him? Exercise him?

Keep notes at the meeting, and write up the results. Post a list on the refrigerator of agreed-upon rules so everyone can remember to be consistent with the dog. If something isn’t working, discuss it and modify rules as needed.

Then remember that every time you are with your dog, you are training him. Make mental notes of behaviors he does that you like, and figure out how to consistently reinforce those. Make note of those you don’t like, and devise a plan to manage the behaviors so he can’t get rewarded for them. When he tries, divert him to a more acceptable, incompatible behavior. For example, if he jumps up, consistently reinforce sitting instead – he can’t jump up and sit at the same time.

The more consistent you can be with your reinforcements and your management, the sooner your dog’s world will make sense to him and the easier life will be for you both.



Accept your dog for who he is. Don’t expect your Shih Tzu to enjoy swimming, or your Lab to stay out of the water.

5 HUMANS’ EXPECTATIONS ARE SO UNREASONABLE!

Imagine how upsetting it would be if your spouse announced one day that you were going to be his training partner for preparing to run the Boston Marathon – and you have bad knees and asthma. It’s not any different than if you decided you wanted your English Bulldog to start training for competitive agility – especially if his favorite activity is napping with you on your recliner. Certainly, a Bulldog could have fun doing agility, but if you expect him to outrun Border Collies, you’ll *both* end up upset and frustrated.

Your relationship with your dog will be much more rewarding for the two of you if you know and understand your dog’s talents and limitations, and work with them. If you have a Beagle or a Bloodhound, rather than being annoyed that his nose is always on the ground, get excited about a future in tracking. Maybe you can do Search and Rescue together, or develop a new career finding missing pets! If your Australian Kelpie drives you crazy chasing things that move, don’t lose your cool over your herding fool – get yourself a flock of sheep or Indian Runner ducks for her to round up and give her a meaningful job to do. Compatible cats may do, in a pinch.

Your Pomeranian may never win the Iditarod, but he could be a lovely freestyle partner, or the “size” dog on a flyball team. Be open to whatever gifts your dog has to share with you, and let them guide you to activities that you can find mutually rewarding. As Leslie Nelson, noted author and trainer, said at the 2004 Association of Pet Dog Trainers conference, “Appreciate (and love) the dog you have, not the one you wish you had.”

If you are successful at fixing the things you do to annoy your dog, you may be pleasantly surprised to find that he does fewer things to annoy you as well. Then, the next time you’re standing around with a group of dog owners who are complaining about their dog’s annoying behaviors, you’ll happily have nothing to contribute. Wouldn’t that be nice? 🐾

Pat Miller, CPDT, is WDJ’s Training Editor. She is also author of The Power of Positive Dog Training, and Positive Perspectives: Love Your Dog, Train Your Dog. Miller lives in Hagerstown, Maryland, site of her Peaceable Paws training center. For book or contact information, see “Resources,” page 24.

Savvy Salves

Make your own first-aid or skin-healing salves from healthy “carrier oils.”

BY CJ PUOTINEN

Whenever you’re blending a massage oil for your dog, diluting an essential oil, making a salve, or simply looking for ways to speed the healing of wounds or abrasions, reach for the right carrier oil.

Also called fixed oils or base oils, carrier oils literally carry or deliver essential oils or herbal ingredients where needed. Most are vegetable oils pressed from fruits, seeds, or nuts, and they contain important healing properties of their own.

The carrier oils recommended here are appropriate for use on dogs of all ages (and on humans, from infants to elders).

Any vegetable oil will work as a carrier oil, including the cheapest cooking oils in your supermarket. Those oils, usually corn or soy, will dilute essential oils, moisturize, soften the skin, and provide a layer of protection, but they are avoided by most holistic practitioners because they contain solvent

and pesticide residues. In addition, because unsaturated fats deteriorate rapidly, super-market cooking oils are highly refined to retard spoilage, which changes their chemical composition and removes nutrients. For best results, shop local health food stores or online sources for organic oils. Check for rancidity; don’t use any vegetable oil that smells “off” or spoiled.

Carrier categories

The three types of carrier oils are basic, additive, and infused or macerated.

Basic carrier oils can be used by themselves or with essential oils for body massage and to moisturize and protect the skin. They tend to be pale or colorless, light rather than thick, and usually have little, if any, odor.

Additive carrier oils are heavier, more expensive, thicker, and often have a pronounced odor. Most are diluted with basic



WHAT YOU CAN DO . . .

- **Make your own herb-infused oils and salves for fast, effective first-aid or protective treatments.**
- **Shop for organic, cold-pressed seed or nut oils that are fresh, not rancid. Refrigerate for maximum shelf life.**
- **Use carrier oils to protect wounds, speed healing, and improve skin and coat.**
- **Combine carrier oils with essential oils for canine aromatherapy. (See “Smell This, You’ll Feel Better,” WDJ December 2004.)**



Even a small batch of homemade salve will go a long way. Fill a variety of glass jars to make wonderful, inexpensive presents for all your dog-owning friends.

oils for topical application or used full-strength on small areas.

Infused or macerated carrier oils result when plant material is added to a basic oil (usually olive or sunflower) and gently heated, then strained. The plant’s oil-soluble compounds are transferred to the carrier oil, increasing its therapeutic qualities.

A favorite infused oil is calendula, made with fresh or dried blossoms of the European marigold, *Calendula officinalis*. Calendula is famous for its treatment of broken veins, varicose veins, bruises, burns, inflammation, skin lesions, and other skin problems. The retail price of four fluid ounces of organic calendula carrier oil ranges from \$9 to \$20, but you can make your own at a fraction of that cost (see recipe, next page.)

St. John’s wort blossoms (*Hypericum perforatum*), which produce a deep red

macerated oil, and comfrey leaves (*Symphytum officinale*), which produce a green oil, are prized for their ability to stimulate rapid wound healing, speed recovery from burns, reduce inflammation, repair nerve tissue damage, and heal the skin. These herb-infused oils are often combined with calendula oil for use as a stand-alone oil, as a carrier for essential oils, or as a salve.

However you create them, infused oils can be applied to a dog's cuts, wounds, burns, or abrasions, or to dry, cracked skin on the nose or paw pads. Any essential oil can be added to infused carrier oils for therapeutic purposes, usually at the rate of three to five drops essential oil per teaspoon of carrier oil, or 10 to 15 drops per tablespoon. (See "Essential Information" WDJ January 2005, for more information about using therapeutic essential oils for your dog.)

Occasionally, carrier oils are used to dilute essential oils that are taken orally. All of the basic oils listed here are safe for a dog to lick, especially if from organic sources. However, try to keep your dog from licking salves and oils off as soon as they are applied. If the problem is a cut or wound that threatens to become a lick granuloma, more serious preventive measures, such as an Elizabethan collar, may be needed. For optimal healing, wounds should be treated, then left undisturbed for as long as possible.

Calendula carrier oil recipe

To make this infused or macerated oil, start with one quart or one liter of organic olive oil or a blend of olive and other oils, such as equal parts olive and jojoba, sunflower, safflower, or sweet almond oil, or use any basic oil or blend of oils.

If you have access to fresh calendula, which is easy to grow in sunny locations, infuse its orange or yellow blossoms just after picking. Bulk herb suppliers sell dried calendula, and some herb farms or herbal supply companies sell fresh blossoms in season.

In the top of a double boiler that has water in the lower pan, combine one quart oil and eight ounces (by weight) of fresh calendula blossoms or four ounces (by weight) of dried calendula. Cover the upper pan and bring the lower pan to a simmer.

Alternatively, loosely fill a glass canning jar with fresh or dried calendula blossoms, then fill the jar with oil to about an inch from the top. Wipe the rim to be sure it is clean and dry, then close the lid. Place the jar on a rack in a pot of hot water and bring



Cracked, dry skin on your dog's nose or paw pads will improve with just a few applications of a healing, moisturizing ointment made from olive oil and calendula.

the water to a slow simmer. For best results, use a pot large enough for water to surround the jar.

Or simply combine oil and blossoms in a ceramic slow cooker set to low heat. If making a small batch (less than one quart), use the "keep warm" setting and extend heating time.

Using any of these methods, let the blossoms infuse for four hours or longer. Check to be sure the oil doesn't get hot enough to smoke or burn. The heat should be gentle. If using a double boiler or glass jar, replenish simmering water as needed. Infusing for 12 to 24 hours produces a deeper yellow/orange color. Turn heat off and let the oil stand until cool, then strain through cheesecloth. The oil will be clear and golden. Add the contents of a 400-IU liquid vitamin E capsule for each fluid ounce of oil (eight capsules per cup or 32 per quart) as a preservative.

To create a solar infusion, combine fresh or dried calendula with oil in a clean glass canning jar and leave it in hot summer sunlight as long as possible. A jar with a tightly sealed lid can be left outdoors for months, absorbing the sun's energy. Many herbalists consider solar infusions superior to those made by other methods.

Making salve

Infused carrier oils, with or without the addition of essential oils, can be turned into

salves for the treatment of wounds, skin cracks, abrasions, burns, and other injuries. Simply warm strained oil over gentle heat and add one to two ounces beeswax (available from beekeepers or herbal supply companies) to each cup of oil. Continue warming the oil until the beeswax melts.

Place a tablespoon of the salve in the freezer until it's cool, then check the consistency. If it's too hard, add more oil to your mix; if it's too soft, add more beeswax. Aim for a salve that is thick but not solid. Soft salves are easy to apply without applying pressure to injuries. When the salve is perfect, pour it into small jars and label. If desired, add several drops of essential oil just before or after pouring into jars. The result will be a versatile, soothing, healing salve for human and canine use.

Basic carrier oils

All of the following can be used full-strength or combined with other oils. For best results, buy organic, cold-pressed, unrefined oils and check for spoilage before use. Most of these oils benefit from refrigeration. To use vitamin E as a natural preservative, add 400 IU liquid vitamin E to each fluid ounce of oil.

Some carrier oils and additives are especially well suited to specific conditions, helping you choose from what may seem like a bewildering assortment of possibilities. Other factors are availability and cost.

Most health food stores carry several good-quality carrier oils, but their selection of special additives tends to be limited. Visit the Web sites or send for catalogs from our recommended resources (see next page) for additional information and recommendations.

■ **Almond oil** (*Prunus amygdalus*). Also called sweet almond oil, this popular carrier oil contains protein, glucosides, minerals, and vitamins A, B1, B2, B6, and E. Almond oil is very pale yellow and has a subtle fragrance. Widely used as a massage oil because it lubricates and protects without being quickly absorbed, almond oil is recommended for skin conditions such as eczema, dryness, inflammation, muscle soreness, and itching. In addition, it helps heal burns.

■ **Apricot kernel oil** (*Prunus armeniaca*). Rich in vitamin A, apricot kernel oil is pale yellow and has a light, pleasant texture. Appropriate for all skin conditions, it nourishes and helps heal sensitive, delicate, dry, inflamed, or aged skin.

■ **Coconut Oil** (*Cocos nucifera*). There are three types of coconut oil: fractionated, refined (also labeled RBD, for refined, bleached, and deodorized), and virgin or unrefined.

Because fractionated and refined oils have been stripped of every possible contaminant, they have an unlimited shelf life and keep for years without refrigeration. They are also rich in lauric acid and contain saturated fats, making them more compatible with skin than most vegetable seed oils.

Fans of unrefined or virgin coconut oil consider this type superior because it contains more nutrients and is a more natural product. Unrefined coconut oils usually have a pronounced coconut fragrance, while refined and fractionated coconut oils are odorless.

Unlike fractionated coconut oil, both RBD and unrefined coconut oils are solid at temperatures below 75° F, so in cold weather, they have to be warmed before application, or they can be blended with vegetable seed oils, which remain liquid.

■ **Emu oil.** No, it's not a vegetable oil, but emu oil (from the Australian birds that resemble ostriches) has become a popular



If you look at your local health food store, you might be surprised by the variety of healthy oils it carries.

treatment for muscle pain, sore joints, arthritis, eczema, psoriasis, hair loss, skin fungus, and other conditions. It works well as a massage oil and as a carrier oil for essential oils, has a mild fragrance, and is quickly absorbed.

■ **Grapeseed oil** (*Vitis vinifera*). This colorless, odorless, light oil penetrates quickly, toning and tightening the skin. A gentle, non-greasy emollient.

■ **Hazelnut oil** (*Corylus avellana*). Hazelnut oil contains protein, vitamins, minerals, oleic acid, and linoleic acid. Slightly astringent, it strengthens capillaries, stimulates circulation, and is quickly absorbed.

■ **Jojoba** (*Simmondsia californica*). Technically a plant wax or ester, jojoba contains protein, minerals, and myristic acid. It closely resembles sebum, making it an excellent treatment for psoriasis, eczema, dermatitis, dandruff, and all skin and hair conditions. Jojoba is an antioxidant, which helps preserve other carrier oils in blends. It never goes rancid and does not require refrigeration.

■ **Olive oil** (*Olea europaea*). The world's most widely used carrier oil, olive oil is green in color and contains protein, minerals, and vitamins. It's been used for thousands of years for skin and hair care, as a massage oil for rheumatic joints, and to soothe and heal wounds. But olive oil has a pronounced fragrance, and the less refined and more natural the oil, the more it smells like olives, enough to overwhelm all but the most strongly scented essential oils.

Herbalists often use olive oil to prepare herbal oil infusions (macerated oils) that are used as lotions or thickened to make salves. Olive oil is useful for all skin and hair conditions, as well as bruises, sprains, and joint inflammation.

Use it full-strength or in any dilution.

Unlike most vegetable oils, olive oil does not require refrigeration or the addition of antioxidants to retard rancidity.

Squalene is a moisturizer extracted from olive oil. It is also a natural component of young skin, and its decline after adolescence contributes to the aging process. Clear and colorless, squalene looks like water. Because it both moisturizes the skin and creates a barrier that seals in moisture, squalene is an ideal ingredient for blends that treat chapped, dry, or scaly skin, eczema, or contact dermatitis. Some aromatherapy supply companies sell squalene.

■ **Safflower oil** (*Carthamus tinctorius*). High in linoleic acid, protein, vitamins, and minerals, safflower oil is very light and odorless. It's useful for all skin types and helps relieve the inflammation of painful sprains, bruises, and painful joints.

■ **Sesame oil** (*Sesamum indicum*). Thick and with a strong fragrance (even stronger if you buy toasted sesame oil), this seed oil contains vitamin E, minerals, proteins, lecithin, and amino acids. It's an effective treatment for psoriasis, eczema, rheumatism, and arthritis, and it softens the skin.

■ **Soy oil** (*Glycine soja*). Soybean oil is the most widely used vegetable oil in America's food supply, but almost all of it is solvent-extracted from pesticide-treated plants that are genetically engineered. The exceptions are sold in health food stores and by some aromatherapy supply companies. A light oil with a mild scent, organic soy oil is suitable for all skin types.

■ **Sunflower oil** (*Helianthus annuus*). High in unsaturated fatty acids and containing vitamins A, B, D, and E plus minerals, lecithin, and inulin, sunflower oil has a light texture and is easily absorbed. Beneficial for all skin types, sunflower oil is used to treat leg ulcers and skin disease, bruises, diaper rash, and cradle cap.

Not recommended

Mineral oil, a petrochemical by-product used in most baby oils, is not recommended for pet use or for aromatherapy. Mineral oil is a harsh laxative when taken internally (or licked and swallowed), and its large molecules interfere with the absorption of essential oils.

Awesome additives

You can blend some of these with your carrier oil for added benefits. Most aromatherapists recommend that additives like those listed below make up no more than 10 to 15 percent of the carrier oil blend because of their expense, because some of them can irritate the skin or eyes when used in large quantities, or because of their consistency. All of the additive oils work very well in blends.

■ **Avocado oil** (*Persea spp.*). Dark green, thick, and heavy, avocado oil is pressed from the fruit of the avocado and contains protein, vitamins, lecithin, and fatty acids. It is recommended for all skin types, especially dry, dehydrated skin, and it is often used in blends that treat eczema. Use up to 10 percent in a carrier oil blend.

■ **Black currant seed oil** (*Ribes nigrum*). High in gamma linolenic acids, black currant seed oil is similar to evening primrose and borage seed oils. Use up to 10 percent in a carrier oil blend.

■ **Borage seed oil** (*Borago officinalis*). Best known as a nutritional supplement for menopausal problems and heart disease, borage seed oil contains gamma linolenic acid (GLA), vitamins, and minerals. This pale yellow oil is an effective treatment for psoriasis, eczema, and aging skin. Deeply penetrating, it stimulates skin cell activity

and regeneration. Use up to 10 percent in a carrier oil blend.

■ **Calophyllum or tamanu oil** (*Calophyllum inophyllum*). Pressed from the fruit and seed of the tamanu tree of India and Polynesia, calophyllum oil is thick, rich, and delicately nutty or spicy. It is also one of the most prized oils for healing wounds, burns, rashes, insect bites, broken capillaries, skin cracks, eczema, psoriasis, and other skin conditions. This oil can be used full-strength but usually makes up 25 to 50 percent of carrier oil blends.

■ **Evening primrose oil** (*Oenothera biennis*). Like black currant and borage seed oils, evening primrose oil is a rich source of gamma linolenic acid as well as vitamins and minerals. As a food supplement, it's used to treat premenstrual tension, multiple sclerosis, and symptoms of menopause. As a topical oil, it treats psoriasis and eczema and speeds the healing of wounds. Use up to 10 percent in a carrier oil blend.

■ **Flax seed oil** (*Linum usitatissimum*). Flax seed oil is high in essential fatty acids, vitamin E, and minerals. Although usually sold as a nutritional supplement, its topical application benefits skin, speeds wound-healing, prevents scarring, and treats eczema and psoriasis. Use 10 to 50 percent in a carrier oil blend. This is a fragile oil, so freshness and refrigeration are important.

■ **Kukui nut oil** (*Aleurites moluccana*). This rapidly absorbed nut oil is high in linoleic and oleic acids, soothing skin irritations, burns, and lesions. In addition to leaving dry, rough skin feeling soft and smooth, kukui nut is said to prevent scarring when applied to wounds or abrasions. Use 5 to 10 percent in a carrier oil blend.

■ **Rose hip seed oil** (*Rosa mosquette, R. rubiginosa*). Pressed from the seeds of wild roses that grow in the Andes Mountains, rose hip seed oil is reddish orange in color and rich in nutrients that regenerate damaged skin, reduce scar tissue, and help heal wounds, burns, and eczema. Use full-strength on wounds or scars; add up to 25 percent to carrier oil blends. Spoils easily; check for rancidity.

■ **Shea butter**. Unrefined, this nut butter can be brown and smelly, but most refined shea butter is processed with hexane, which herbalists and aromatherapists try to avoid. Look for filtered shea butter (solid at room temperature), as this is a rich emollient that thickens carrier oils. Use up to 10 percent in oil blends, more in salves. 🐾

Author of The Encyclopedia of Natural Pet Care, Natural Remedies for Dogs & Cats, and other books, CJ Puotinen lives in New York with her husband, Labrador Retriever, and red tabby cat. All members of the family use jojoba and other carrier oils.

Recommended Resources

Holistic Aromatherapy for Animals: A Comprehensive Guide to the Use of Essential Oils and Hydrosols with Animals by Kristen Leigh Bell (Findhorn Press, 2002, \$14.95). Available from aromaleigh.com.

Auroma USA, Wheaton, IL. (800) 327-2025, auroma.com. Carrier oils.

Boston Jojoba, Boston, MA. (800) 800-256-5622 or (978) 777-9332, bostonjojoba.com. Jojoba oil.

Florapathics Organic Living, Houston, TX. (888) 903-5672, florapathics.com. Carrier oils.

Jaffe Brothers, Valley Center, CA. (760) 749-1133, organicfruitsandnuts.com. Carrier oils.

Jean's Greens, Schodack, NY. (518) 479-0471, jeansgreens.com. Herb-infused carrier oils, bulk herbs.

Mountain Rose Herbs, Eugene, OR. (800) 879-3337, mountainroseherbs.com. Herb-infused oils, carrier oils, herbs.

Nature's Gift, Madison, TN. (615) 612-4270, naturesgift.com. Online orders preferred. Carrier oils.

Simplers Botanicals, Sebastopol, CA. (800) 652-7646, simplers.com. Herb-infused oils.

SunRose Aromatics, Bronx, NY. (718) 794-0391, sunrosearomatics.com. Carrier oils.

Victoria's Scents, Hialeah, FL. (866) 591-0062, aromatherapyoutlet.com. Carrier oils, including emu oil.



Shopping for Supplements

What to look for when choosing a nutritional supplement for your dog.

BY SHANNON WILKINSON

Every two weeks I faithfully fill the pill organizers for my Boxer, Tyler. He receives a number of supplements, some for general nutrition and well-being, and some specific to his particular health challenges, including Addison's disease.

I'm not the only one performing this ritual. According to the American Pet Products Manufacturers Association, about nine percent of all dogs receive vitamins regularly; perhaps an even greater percentage of WDJ readers give supplements to their canine companions.

The pet supplement market has erupted into a billion-dollar industry – yes, that's billion with a B. There is a dizzying array of pet specific supplements available in



The ideal place to buy supplements for your dog is an independent pet supply store. Look for a shop owned or managed by someone who has experience with the products, which have been formulated for pets by reputable companies.

stores, catalogs, and online, and the choices are growing all of the time. While this means there are more options available for your dog, it also means that you may have a more difficult time making the right choice.

"This is a buyer-beware industry," says Bill Bookout, president of the National Animal Supplement Council, based in Valley Center, California. Bookout cautions, "There are responsible producers and there are opportunistic suppliers, and there's no easy way to tell the difference."

The National Animal Supplement Council, formed in 2001, is attempting to help consumers identify which manufacturers are the responsible ones. The NASC's mission is to ensure the continued availability of animal supplements and to standardize quality in the industry.

To that end, the group has established quality guidelines for supplement manufacturers and has created a seal for manufacturers to include on their labels and marketing materials to signal to consumers that the company and its products meet those guidelines. The NASC's guidelines were developed with help and input from members of the FDA's Center for Veterinary Medicine and Association of American Feed Control Officials (AAFCO).

When choosing products for your dog, the NASC is a good place to start. "With a very few exceptions, I would avoid companies that are not members of the NASC," advises holistic veterinarian Susan Wynn, of Acworth, Georgia. She adds, "You know these companies care about elevating the standards of the industry, doing the right thing regarding adverse events, good manufacturing practices, etc."

Paying the annual dues doesn't guarantee a company membership in the NASC. In fact, Bookout says that some companies have been asked to leave the organization for failure to comply with its standards. The self-regulating organization has a number of stringent requirements for its members, including:

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WHAT YOU CAN DO . . .

- Whenever possible, buy products formulated for dogs.
- Carefully research the manufacturer of any supplement you are considering for your dog.
- Report any adverse events experienced by your dog to the NASC, regardless of membership status of the manufacturer.

1. The company must have a **quality manual** in place that provides written standard operating procedures for production process control.
2. The company must have an **adverse event reporting/complaint system** in place to continually monitor and evaluate products, and must report monthly to the NASC any adverse events, or confirm that there were no adverse events to report.
3. The company **must follow proper label guidelines** for all products, avoiding the use of statements that suggest that the product diagnoses, treats, prevents, or cures any disease.
4. The company **must include any specific warning and cautionary statements** recommended by the FDA's Center for Veterinary Medicine and the NASC Scientific Advisory Committee, or any other recommendations made by the NASC Scientific Advisory Committee.
5. A company representative **must attend at least one NASC meeting annually** to stay abreast of industry developments.

Choose animal-specific products when available

Experts agree, the best choice for your dog is a supplement formulated specifically for dogs. "In my opinion, owners should only use animal products. These products have the correct dose listed on the label and the manufacturer bears some responsibility if something happens related to administration of the product," says Dr. Wynn.

Bookout adds, "Animal products are formulated for animal metabolisms by people who know animals." In addition to his position in the NASC, Bookout is the founder and president of Genesis Ltd., maker of supplements for cats and dogs under the Resources brand name.

Joan Holden and her husband Frank started making supplements specifically for animals more than 10 years ago, when there weren't many options on the market. "We tried to use people products for our Golden Retrievers, but the dosages were off, and we couldn't find exactly what we were looking for," she explains. The Holdens founded Merritt Naturals, which is now called Animal Essentials after its merger with herbal products developer Animals Apawthecary.

Quality ingredients

"Cheap products are cheap for a reason," says Bookout. For example, active ingredients, such as chondroitin, are available in widely varying levels of purity; this affects the cost of the raw ingredient. While some ingredients are available for a good value, if a product is significantly less expensive than similar items, there is probably a good reason.

Conversely, higher cost doesn't always translate to a better product. Companies have different marketing and advertising costs, as well as distribution systems, such as only through veterinarians or specific retailers, all of which may increase or decrease the price. One way to understand the real value of a product is to compare the active ingredients per dose.

Animal Essentials uses only human-grade ingredients in its products, choosing organic and natural options when available. "We don't add any sugars, fillers, or preservatives, nothing to entice [dogs] to eat the products," says Holden. She adds, "If you need your dictionary to know what an ingredient is, it's probably not necessary."

There are a number of common inert in-

redients that are used to help form the active ingredients into the proper form or consistency, such as a tablet or capsule. Called excipients, these ingredients are generally considered to be safe. However, they may be the hidden cause of allergic reactions. For example, the gelatin used to make a capsule could cause a reaction in an animal highly allergic to beef. For this reason, it may be best for some animals to choose products with the fewest ingredients possible, in a natural form, such as a powder.

Clear information on labels

The label should be clear and easy to read. It should contain a complete listing of ingredients, including the active as well as the inactive, or inert, ingredients. It should also say how much of each active ingredient is in each unit or dose, whether it's a scoop, tablet, or dropper. This information will help you ensure that your dog will get a therapeutic dose of the active ingredient in an easy-to-administer amount. It also allows you to compare different products with similar ingredients.

Also, look for an expiration date and a lot number on the package. "A lot number shows the company is tracking the product and has an eye toward quality. If there's a problem, without a lot number, the company can't do a recall," explains Bookout.

Reputable companies

Contact information should be easily found on the label. If the company isn't a member of NASC, visit the company's Web site. Call the company and ask about its quality program, who formulated its products, and what customer support the company provides.

Avoid overzealous marketers and products that promise miracles. Manufacturers of supplements are not allowed to make claims about a product's ability to treat or cure disease. However, statements regarding how the supplement can impact structure or function of the body are acceptable. For example, a glucosamine/chondroitin supplement can say that it contributes to healthy joints, but it cannot say that it cures osteoarthritis. 🐾

For contact information for the NASC, see "Resources," page 24.

Shannon Wilkinson is a freelance writer, life coach, and TTouch practitioner in Portland, OR. She remembers to give her dog and cats their supplements every day, but rarely remembers to take her own vitamins.

Supplements With the NASC Quality Seal

There are more than 50 manufacturers that are members of the National Animal Supplement Council (NASC) and agree to abide by their rigorous standards. A few companies have undergone an additional step and have passed an independent audit of their practices, allowing their products to display the NASC Quality Seal.

Following is a list of manufacturers of canine supplements that are approved to carry the NASC seal (as of 6/10/05).

21st Century Pet Nutrition. Multivitamin/mineral, calming, healthy joint, and other formulas. Most are liver-flavored chews.

Farnam Companies, Inc. Joint and essential fatty acid products.

FoodScience Corp. (Also known as Vetri-Science Laboratories and U.S. Animal Nutritionals.) Variety of supplements for dogs, including Glyco-Flex and Vetri-Disc.

Genesis Ltd. Variety of issue-specific supplements, as well as vitamin/mineral formulas under the Resources brand.

In Clover. Products include Connectin.

Nutri-Vet Nutritionals. Variety of supplements.

Sher-Mar Enterprises. Joint and other products for dogs.

Source, Inc. Supplements containing seaweed meals and other ingredients.

The Garmon Corp – NaturVet. Variety of supplements.

Walk This Way

Teach your dog to walk on a loose leash to make your walks more fun.

BY PAT MILLER

Walking politely at your side doesn't seem like it should be so difficult to teach a dog, but it often proves to be the most challenging behavior for dog owners to achieve. Dogs who are letter-perfect with their sits and downs, targeting, and "leave it" exercises in the training center happily drag their owners across the parking lot to and from their cars before and after class.

Why do so many dogs pull on leash? Because they can. Many dogs learn, from the time they're wee pups, that pulling on the leash gets them where they want to go. They pull, owner follows. There are a number of other reasons that dogs pull:

- We are slow and boring, and the world is infinitely exciting and rewarding. If you take your dog for a hike in a safe place *off leash*, chances are good he'll run several miles for every mile you trudge on your pathetic two human legs.

- It's not a natural behavior. Rarely do dogs plod sedately side by side. They dash, dart, gallop, romp, run, and trot, but rarely do they plod, unless you have a senior citizen who's feeling his years.

- Lack of consistency. Although they may understand the concept of polite leash training and would like their dogs to be a pleasure to walk, most owners are *also* eager to get where they're going, sometimes. If you insist on a loose leash most of the time, but allow him to pull when you're in a hurry or your attention is elsewhere, pulling is likely to be his first behavior choice when he really wants to get somewhere.

- Behaviors that are intermittently reinforced are very durable. If a dog has learned to pull and is occasionally rewarded for this (by getting to reach what he is pulling toward), he will continue to pull whenever the opportunity arises.



Not every dog will pay such rapt attention to you (rather than his environment) in hopes of earning a treat, but you might be surprised at how much your dog will improve his polite walking skills if he tasty treats occasionally when he's walking by you.

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WHAT YOU CAN DO . . .

- **Commit to teaching your dog polite leash walking so you'll enjoy taking her more places and doing more things with her.**

- **Be consistent about reinforcing loose leash walking and *not* reinforcing leash-pulling.**

- **Insist that everyone who walks your dog on leash follow the same procedures you use to properly reinforce polite leash walking.**

- Sometimes the dog pulls because the owner never gives him slack in the leash. Many owners suffer from "Floating Arm Syndrome" – no matter how many times you remind the owner to keep her arm at her side in order to keep slack in the leash, that arm mysteriously levitates to shoulder height, and the leash tightens, *even when the dog is walking politely by her side.*

- If I attach a rope to your belt and pull, you're likely to pull back. If I push, there's a good chance you'll push back. This is the "opposition reflex," a natural response that enables us to maintain equilibrium and stay upright. Dogs have it too, and it kicks in when the leash tightens on their collar – they pull against it.

- It's not important enough. Some owners rarely put a leash on their dogs because they rarely take them anywhere. For these owners, it's just not a high priority behavior to practice – so they don't.

Perhaps it was my early "old-fashioned" obedience training, but I have a real aver-

sion to a tight leash – I find it very annoying to have my dog yanking my shoulder out of the socket. Even though I live on a farm, where dogs don't often have to be leashed, it's worth it to me to practice.

Polite walking versus "heel"

Old-fashioned training classes assumed that everyone aspired to the level of precision required for obedience ring competition. We taught students to bark the "Heel!" command and stride forward, using leash "pops" or "corrections" – both euphemisms for punishing the dog with a sharp jerk on the choke collar if he dared stray an inch out of perfect heel position.

You can still find similar old-fashioned training classes today, but increasingly you'll encounter pet dog training classes, where a cheerful "Let's Walk!" cue replaces the "Heel!" command, and clicks and treats for reasonably polite walking replace physical punishment for minor missteps.

"Heel" means "walk precisely beside me." However, a growing number of positive trainers are earning obedience and rally titles for their dogs with enviably high scores by teaching their dogs to walk precisely by their sides without ever jerking on a collar. Rather, sits, heel position, and other required exercises are all taught by shaping, clicking, and positive reinforcement – treats, play, and praise, with the trainer gradually fading the use of clicks and treats before setting foot into the show ring.

Whether your goal is winning trophies and titles in competition or strolling around the block in harmony with your canine pal, you can use the following dog-friendly training techniques and avoid potentially spine-damaging yanks on your dog's col-

lar. It's best to practice in short sessions – perhaps 5 to 15 minutes apiece, and to quit while you're ahead – when you're having some success and you and your dog are both enjoying the training game.

Free walking

Start with your dog off leash in a safely enclosed area, indoors or out. Yes, you can teach your dog to walk on leash by working without a leash! Have a good supply of tasty treats, and your clicker or other reward marker handy.

Start walking around the enclosed area. Any time your dog is within three feet of you, click! (or use another reward marker, such as the word "Yes!") and give your dog a treat. Your dog will discover that it's very rewarding to stay near you and begin to walk with you, at least some of the time. Use a high rate of reinforcement – lots of clicks and treats – accompanied by cheerful praise, to convince your dog you're more fun and rewarding than the world around him.

When your dog starts to "hang" with you as you walk, pick which side you want him to walk on and start clicking only if he's on that side. At first, click and treat whenever he's closer to your chosen side. As he begins to spend more time on that side, click and treat for positions that come closer and closer to your goal walking position. This is called "shaping" – breaking a desired behavior into small steps and reinforcing *approximations* of the final behavior, gradually tightening the criteria until you eventually have the final goal behavior.

You can use other reinforcers besides food. Pairing your click! and treat with cheerful praise will give your dog a positive association with voice rewards, and

help you eventually fade (get rid of) the need for the click and treat. You can also use toys and play as rewards. Hide a small squeaky toy or tug rope in your pocket, and after a stretch of exceptionally nice walking, whip it out, squeak and toss, or play a bit of tug as your dog's reward. Keep him guessing!

Choosing one side for polite walking will keep your dog from crossing back and forth in front of you and tripping you up. Traditionally, dogs are taught to walk on the left side – possibly a carryover from the time when owners routinely carried and used rifles in their right hands while hunting with their dogs. While some dog sports still hold with this tradition, notably obedience and rally, others, such as agility and canine freestyle (dancing with your dog), ask the dog to work on both sides. Choose the side that works for you and your training goals, and later you can train to the second side as well, if you desire.

When your dog is frequently walking by your side, it's time to add the leash.

Leash walking

You can start with the leash attached and skip the free walking exercise if you want, but practicing off leash first helps you avoid falling victim to many of the reasons dogs pull on leash. Neither you nor your dog can pull on the leash if it's not there!

Remember that your dog's leash is not a steering wheel or handle. It's a safety belt, intended to prevent your dog from leaving. It's not to be used to pull him around. To position him by your side to begin walking, rather than dragging him there, use treats and body language to show him where you want him to be.

For left-side walking, start with your dog



Start your dog's on-leash lessons OFF-leash. This gives him the freedom to discover the location of the most rewarding position for him to walk by you, without interference from the leash.



Feed him the treats from the side on which you want him to walk. Offer them with your hand behind your knee to keep him from crossing in front of and tripping you to reach the treats.

sitting by your left side. I suggest holding leash and clicker in your left hand (same side as the dog) and having a good supply of treats in your right hand. Make sure there's enough slack in the leash so it stays loose when your dog is in the reinforcement zone you've identified for polite walking. You can also use a waist-belt or otherwise attach your dog's leash to your body, as long as he's not big enough to knock you down and drag you.

Use your "Let's walk!" cue in a cheerful

tone of voice and start walking forward. The instant your dog begins to move forward with you, click! and treat. At first, click! and treat very rapidly – almost every step. When your dog is attentively focused on his new, generous, treat-dispensing machine (you!), you can gradually reduce the rate of reinforcement.

Careful! If you reduce the rate too quickly or too predictably, you'll lose the behavior. As you *gradually* reduce the rate of reinforcement, be sure to click! and treat

randomly – so your dog never knows for sure when the next one's coming. If he knows you're going to reinforce every tenth step, he can quit paying attention for nine steps, and zero back in on you on the tenth. This phenomenon is called an *interval scallop*. We humans are creatures of habit, and easily fall into predictable patterns. Our dogs are masters at identifying patterns.

The manner in which you hold and deliver your treats is critical to success with polite walking. When you walk, have the

Leash Walking Tools

There are scads of tools on the market that purport to help you attain that elusive polite walking behavior. Some dog owners plan to use their tool of choice on a daily basis to manage their pullers; others may intend to train their dogs to walk politely and eventually wean them off the tool. Either goal is fine.

Some of the currently popular tools work better than others. Here's our take on several of them:

Front-clip control harnesses: Marketed by various companies as the SENSE-Ation Harness, Sensible Harness, K9 Freedom Harness, and Easy-Walk Harness, this is our favorite leash-walking aid. It looks like a regular harness except the leash attaches in front instead of over the shoulders. When the dog pulls, the tension in front of the dog's chest reorients him back toward the

handler. The harness is easy to put on, and dogs seem to accept it well – there's no adjustment period, and it works to reduce pulling for many dogs immediately, and continues to work well as a management tool over time, if that's the owner's goal. Watch for chafing in the dog's armpits.



Head halters/head collars: Like a halter on a horse, the head halter goes over the dog's head and with one exception, the leash attaches under the chin. As with front-clip harnesses, when the dog pulls, the pressure on his head reorients him back toward the handler. Popular brands are the Gentle Leader, the Halti, and the Snoot Loop. The New Trix halter is a bit different – the leash attaches behind the head, and the halter tightens when the

dog pulls – ostensibly making use of the opposition reflex to encourage the dog to stop pulling. Considered a positive tool by many trainers, we're not fond of head halters except in limited circumstances to control a biting dog's head.

Many dogs resist the head halter – sometimes violently, even after a

reasonable adjustment period. As much as it *looks* like a positive training tool to humans, if dogs don't like it, then it's not positive to *them*.

Pressure harnesses: These work by increasing pressure of the straps around the dog's barrel and under the arms when the leash tightens. One such product is the Sporn Pull-Stop. They can be complicated to put on the dog, with various straps that go under, around, and through the dog's legs. They may work well at first when the dog responds to the novelty of the harness pressure, but dogs tend to return to pulling when the novelty wears off – better as a training tool than a management tool. We're not crazy about these, due to their complexity and short-term effect.



Stretch leashes: These leashes are made of an elastic material, or contain a section of elastic that stretches when the leash tightens. These can be useful for dogs who may lunge to the end of the leash and risk damage to the spine. We don't find them particularly useful otherwise for teaching polite walking.

Other collars: There are numerous collars that rely on the application of pain or discomfort to attain polite walking behavior. These include the choke chain, prong collar, and various shock collars (also known as "e-collars"). We don't consider any of these to be dog-friendly training tools, and don't endorse their use.



treats in your right hand but hidden behind your right hip. If you hold them in your left hand where your dog can see or smell them, it will be harder to fade treats later on. If you hold them in front of you in your right hand, your dog will keep stepping in front of you to watch your hand (treats), and you'll keep stepping on him.

To deliver treats, wait for a second or two after the click! as you keep walking, then bring your right hand across the front of your body and feed the treat just behind your left knee. Quickly move your hand behind your right hip as soon as you've delivered the treat. Feeding the treat where you want your dog to be – on your left side – reinforces that position. If you feed the treat in front of you, you'll reinforce *that* position, and you'll be stepping on him again.

Remember to click!, *then* treat after a brief pause. If you begin to move your treat hand toward him *before* the click!, he's just thinking about *food* rather than what he did to make you click the clicker. For the same reason, you want to lure as *little* as possible during leash walking. Luring will keep him in position, but it interferes with his ability to think. Your goal is to get him to realize that walking in the desired reinforcement zone makes you click! the clicker and earns him a reward.

If your goal is a show-ring heel, continue to shape for a more precise position as previously described, until your dog will walk reliably with his shoulder in line with your leg. Then change your cue from "Let's Walk!" to "Heel!" so your dog can distinguish between "now we're going for a relaxed stroll," and "now we're working for that perfect 200-point score."

The lure of the lure

Of course, it's not always that simple. There will be times when your dog forges ahead of you and tightens the leash, or stops to sniff something of interest as you walk past him. There are positive solutions for those challenges as well.

When you have to pass a very tempting distraction, use a lure, briefly, to get your dog past the distraction. Put a tasty treat at the end of his nose (the more tempting the distraction, the higher-value the treat must be) and walk him past. As his polite walking behavior improves, your need for luring should diminish.

About face

Direction changes can be very useful in teaching polite leash walking. When your



If your dog starts to rush ahead of you, try just stopping. Click and treat when he turns back to you and slacks the leash.

dog starts to move out in front of you, before he gets to the end of his leash, turn around and walk in the opposite direction.

Do this gently; you don't want him to hit the end of the leash with a jerk if he doesn't turn with you! As you turn, use a cheerful tone and a kissing noise to let him know you've changed direction. When he notices and turns to come with you, click! and offer a treat behind your left knee. He's now behind you, so you'll have ample opportunity to click! and treat while he's in the zone as he catches up to you.

Be a tree

There will be times when your dog pulls ahead of you on a tight leash. This is a great opportunity to play "Be a tree." When the leash tightens, stop walking. Just stand still – like a tree – and wait. No cues or verbal corrections to your dog. Be sure to hug your leash arm to your side so he can't pull you forward.

Eventually, he'll wonder why his forward progress has stopped, and look back at you to see why you're not coming. When he does, the leash will slacken. In that instant, click! and feed him a treat *behind your left knee*. The click! marks the loose leash behavior, and he'll have to return to the reinforcement zone to get it. Then move forward again, using a higher rate of reinforcement if necessary, until he's again walking politely with you.

Penalty yards

If "Be a tree" is not working, add "penalty yards." Your dog usually pulls to get somewhere – or to get to something. If he won't look back at you when you make like a tree, back up slowly – with gentle pressure on the leash, no jerking, so he's moving *farther* away from his goal. This is *negative punishment* – his pulling on leash behavior

makes the good thing go farther away. When the leash slackens, click! and treat, or simply resume progress toward the good thing as his reward.

Go sniff!

Sniffing is a natural, normal dog behavior. If you *never* let your dog sniff, you're thwarting this hard-wired behavior. He may become frustrated and aroused if he's constantly thwarted, so when you're doing polite walking together, you can sometimes give him permission to sniff.

If he stops to sniff keep walking, putting gentle pressure on his leash to bring him with you, giving him a click! and treat as soon as he moves forward. When you know you're approaching a good sniffing spot, however, you can give him permission by saying "Go sniff!" Give him enough leash to reach the spot without pulling, even running forward with him if necessary. You can also use "Go sniff!" as a reinforcer for a stretch of nice leash walking!

Proofing

Proofing is the process of solidifying polite leash-walking behavior in the presence of distractions. This works best with controlled distractions, starting at a distance where the temptation is not strong enough to compel your dog to investigate.

Practice his leash-walking behavior at a distance that works, then gradually bring the distraction closer. Increase the rate of reinforcement or the value of the reinforcer as needed, but try to avoid bringing the distractor so close you have to use a lure to get your dog past it. As you practice with various temptations at closer distances, your dog will learn to keep working with you and you'll be able to reduce the rate of reinforcement again.

It's up to you to decide whether you want your dog to walk politely on leash or heel precisely at your side. Dogs want good stuff, and they do what works to make it happen. If walking on a loose leash makes good stuff happen for your dog, the two of you will stroll happily side-by-side into the future together. 🐾

Pat Miller, CPDT, is WDJ's Training Editor. She is also author of The Power of Positive Dog Training, and Positive Perspectives: Love Your Dog, Train Your Dog. Miller lives in Hagerstown, Maryland, site of her Peaceable Paws training center. For book or contact information, see "Resources," page 24.

How to Make a Muscle

Regular exercise, good nutrition, and occasional massage keep dogs fit.

BY RANDY KIDD, DVM, PHD

Compare the actions and functions of the musculoskeletal system to a finely tuned symphonic orchestra. Each and every instrument (each of the dozens of independent muscles in the dog) contributes to the whole. For one instrument to be heard above the rest, the sounds from other instruments must be softened – and for one set of muscles to flex or contract a joint, that joint’s muscles of extension must relax, and vice versa. The music of the muscles is this month’s stop on the Tour of the Dog.

Anyone who loves the symphony knows that the individual instruments resonate or play off one another to create an apparent experience of one musical “organism.” This same resonance exists within an animal’s musculoskeletal kinesthetic system. (Kinesthesia is the sense by which movement, weight, position, etc., are perceived; commonly used to refer specifically to the perception of changes in the angles of the joints.) Thanks to his constant kinesthetic feedback mechanism, a healthy dog auto-



Freeze-framing dogs at play reveals what amazing athletes they really can be. A fit, active dog’s muscles enable him to perform incredible feats of acceleration, immediate changes of direction, and lightning-fast stops.

The Whole  Dog Journal™

WHAT YOU CAN DO . . .

- **Keep your dog healthy and fit with daily walks – as long as you have time for, and your dog can handle without muscle soreness.**
- **At least once or twice a week, give your dog a relaxing massage. Note areas with chronically sore or tight muscles. Mention abnormalities to your vet at your dog’s next exam.**
- **Arrange for your competitive athlete to occasionally receive a professional massage.**

matically knows where his legs are, and his nervous system tells him exactly where to place each foot as he travels down the road.

But enough of this analogy; let’s see how the real muscle tissues work (and don’t work) in our canine friends. And, let’s see if there are some ways we can help keep our dogs’ muscles fit, to keep them from becoming soft and under-productive.

NOTE: The musculoskeletal system is generally considered as one unified system because that’s the way it operates. The musculoskeletal system includes bones, muscles, tendons, ligaments, nerves, and the biochemicals and nutrients that are required to energize and move the system. The system’s functions include propelling the dog from one site to another, providing architectural stability, and the protection of internal organ systems.

In this article we will stick with the muscular portion of the system, and cover bones and joints in later editions.

Anatomy and physiology

A single muscle fiber is a cylindrical, elongated cell, and may vary in length from very short (for example, the muscles controlling eye movement) to the length of a dog’s thigh (the sartorius muscle extends across the anterior thigh, wrapping around from the outer hip to below the inner knee, thus it is actually longer than the dog’s thigh).

Between and within muscle cells is a complex latticework of connective tissue, resembling struts and crossbeams that help to maintain the integrity of the muscle during contractions and straining. Crossbeams within muscles can be seen using a microscope and are responsible for the muscles appearing “striated.” Other muscles in the body, such as those found in the intestine, bladder, and blood vessels, are non-striated. Cardiac muscles are striated, but they have a slightly different microscopic appearance from skeletal muscles.

Organizationally, thousands of muscle

fibers are wrapped by a thin layer of connective tissue (called the perimysium) to form a muscle bundle (or “fascicle”) that is surrounded by another sheath of connective tissue (the epimysium). Muscle bundles (which, when taken together, are named – the biceps for example) are joined at each end into tendons, which attach to bones. The muscles function by contracting across joints and using the joint as a fulcrum, causing movement.

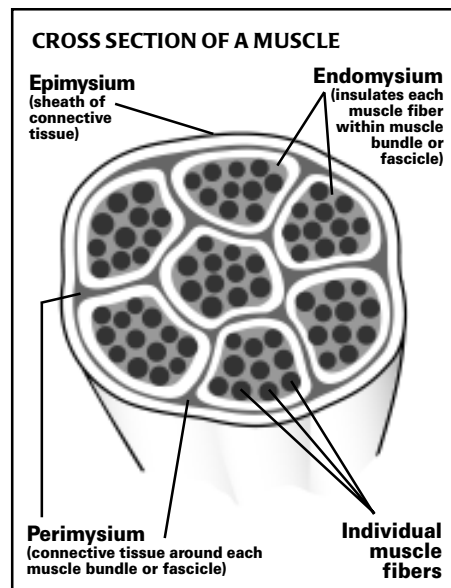
The contractile machinery of the muscle fiber is organized into structural units called sarcomeres, with several sarcomeres lining up to form into a contractile unit of myofibrils. Muscle length is determined by how many sarcomeres are lined up in series, one next to the other. Muscle thickness ultimately depends on how many sarcomeres line up in parallel (one on top of the other).

The sarcomere structures consist of two important proteins, actin and myosin (comprising about 85 percent of the muscle cell’s volume); other proteins such as troponin and tropomyosin are also present. Today’s accepted theory for how muscles contract involves the action of actin and myosin sliding over each other, increasing the amount of overlap and thus shortening the length of the muscle cell. Muscle fibers can be excited into shortening by chemical, electrical, or physical means. Muscular activity requires energy input, and prolonged activity necessitates the oxygenated “burning” of metabolizable nutrients.

Muscle cells contain an abundance of interconnected mitochondrial powerhouses, the organelles that contain the enzymes that utilize oxygen during exercise (via the conversion of fats, carbohydrates, and proteins to ATP). This entire network is supplied with zillions of capillaries – a cross section of one square inch of muscle contains 125,000 to 250,000 capillaries.

Exercise is the vital component for improving overall muscular function. It enhances the efficiency of the mitochondrial power-packs (and over time increases their numbers), and increases the number of functional capillaries per square inch of muscle for better overall energy supply and enhanced waste product removal.

Muscle fibers are innervated and activated by motor neurons. Each motor neuron activates, on average, some 600 muscle fibers. Large muscles may have as many as 2,000 fibers per motor unit; the tiny eye muscles may have only 10 or so fibers per motor unit. When stimulated, a motor unit will fire all the fibers it is in contact with,



not just a few. In addition, there are several mechanisms that insure muscle-use efficiency by firing only those muscles needed for the task at hand and by using the more efficient, oxygen-consuming energy pathways whenever possible.

Smaller muscles have fast-twitch fibers – muscle fibers that are activated early, require more energy to function, and thus tire faster. Larger muscles contain more slow-twitch fibers – more energy-efficient fibers that are recruited when a heavier load of work is required. As an animal continues to exercise, more and more slow-twitch fibers are recruited into action. Eventually even the larger muscles tire, and ultimately the dog becomes so tired he can go no farther.

Anytime a dog moves he relies on all the systems working in healthy unison. Whenever dogs need to extend their activity range, they rely on their previous exercise history and their current nutrient status to provide them with healthy muscles. Exercise not only enlarges muscle mass by stacking muscle cells on top of one another, it increases the blood supply to the muscles, and it adds more mitochondria to the cells – thus enhancing cellular metabolism and function.

If there is any one medicine especially made for muscles, it is exercise, liberally applied, several times daily.

Diseases of the muscles

There are several diseases that are muscular in origin, and several more that affect the muscles secondarily via the nervous system, nutrient deficiencies, and other sources. Following are some of the more important of these diseases.

■ **Pain.** While pain may not be a specific disease, it deserves a brief note here, especially since much of the pain animals contend with comes from the musculoskeletal system, and since many of our dog’s conditions of the muscular system involve nothing more than mild strains that cause variable amounts of pain. As prevalent as pain is, it is curious how little we really know about it in animals – most of what we think we know is conjectural or theoretical.

One thing we do know, however, is that pain perception is a purely subjective phenomenon, whether we are talking about humans or other animals. An important concept to keep in mind is that, although pain perception appears to be quite constant across species, actual tolerance of a painful stimulus may vary widely even within a single species – that is, all of us (animal and human) have similar pain thresholds, but some individuals can tolerate a higher level of pain than others without showing clinical signs. Thus, one dog may scream and howl with nothing more than a pinched toe; another will seemingly have no pain after severe injuries that would leave most of us debilitated.

From a practical standpoint, this means to me that I consider the treatment of pain an important component of anything that seems like it *could* cause pain, even if the animal isn’t showing obvious outward signs of experiencing pain. Mild pain relievers contained in herbal remedies, acupuncture, chiropractic, trigger point therapy, massage, and homeopathic remedies are my treatments of choice for pain. Western medicine relies on analgesic drugs (narcotics and non-steroidal anti-inflammatories), but I’d just as soon avoid the adverse side effects seen with these.

There are two basic kinds of pain, superficial and deep. Superficial pain or fast (first) pain can be described as pricking, bright, or sharp. Descriptors for deep or slow (second) pain include dullness, burning, aching, or throbbing. To get a sense for the two types of pain, consider how it feels when you cut yourself with a sharp knife. Initially you feel a sharp first or fast pain, and then a few seconds later you feel the throbbing, dull, slow, or second pain. The combination of pains is referred to as double pain and is common after tissue injury.

Before you (or your dog) are able to feel any pain, pain receptors (nociceptors) in the affected organ or structure must first be stimulated above their thresholds. In both first (acute) and second (chronic) pain, a

naturally occurring inflammatory process causes firing of the pain receptors. Pain mediators such as histamine, serotonin, and prostaglandins are released from various cellular structures during the course of the inflammatory process, and they cause the initiation and continuation of pain.

Pain receptors found in joints, muscles, and tendons combine with proprioceptors (nerve bundles that detect the position of body structures) to help keep limbs and joints within a normal range of motion. If they detect pain or a joint that is approaching its normal limits of motion, the receptors fire and cause a tightening or loosening of the muscle masses that control the structure, thus preventing structural damage. If structural damage occurs, the pain receptors will fire and instigate the inflammatory process.

Most (about 80 percent) of a joint's protection comes from the stabilizing ability of the muscles and tendons; ligaments contribute only about 20 percent – yet another reason to keep your dog's muscles in shape with exercise.

■ **Hereditary conditions.** There are several hereditary conditions that affect dogs' muscles. **Muscular dystrophy** (MD) refers to a group of genetic disorders associated with a deficiency or dysfunction of the muscle protein, dystrophin. A primary interest in canine MD is its potential similarity to the human disease. The disease complex has been reported in several breeds of dogs; the one that has been best characterized is a sex-linked disease of Golden Retrievers.

Muscular dystrophy's major symptom is muscle wasting, and clinical signs in

Goldens include generalized weakness, enlargement of the tongue, and difficulty eating. Most affected dogs die while still young, but some survive to three to five years of age, eventually dying from cardiac disease. Blood chemistries and muscle biopsies are necessary for accurate diagnosis.

Scientists are currently working on "gene surgery" to repair the affected DNA segment of MD, and the technique seems to hold some promise for Goldens and potentially for humans.

Myasthenia gravis is another disease that has been reported (rarely) in dogs as well as in humans. It occurs as both an acquired, autoimmune disorder and a congenital, familial one. The consistent symptom is severe fatigue that is relieved with rest and anticholinesterase therapy. It is thought that both the acquired and congenital forms are due to a diminished number of cholinesterase-responsive chemical receptors on the muscle cell walls (acetylcholine receptors).

While the exact cause of the immune-mediated condition has not been defined, one can suspect the usual factors: excess use of corticosteroids, diminishing the immune capacity; vaccine-related; and excess exposure to toxins (especially suspect here would be pesticides).

Treatment is challenging, and in Western medicine it would include the use of anticholinesterase drugs, followed up with corticosteroids or other immune-suppressors. Alternative therapies would ultimately attempt to enhance the balance of the immune system rather than trying to shut it down.

Beware of Cholinesterase Inhibitors

Cholinesterase is an enzyme that regulates nerve impulses. Many pesticides – including some found in pet- and lawn-care products, principally the organophosphates and carbamates – work by binding or inhibiting cholinesterase. Cholinesterase inhibition is associated with a variety of acute symptoms such as nausea, vomiting, blurred vision, stomach cramps, and rapid heart rate; overdoses can cause death. Signs of toxicity can occur after excess or prolonged exposure to cholinesterase-inhibiting chemicals from inhalation, ingestion, or from skin contact or eye exposure.

Many of the so called "nerve gasses" are cholinesterase inhibitors. Sarin, for example, the nerve gas that was used in the Tokyo subway attack a few years ago, is a cholinesterase inhibitor. Breathing a lethal dose of these chemicals can kill in 15 minutes; a lethal dose on the skin can kill in only one to two minutes – which should give us some pause whenever we are considering the use of pesticides on our pets or lawns. Remember that the idea behind chemical pesticides is to kill the pest without also killing the animal or the folks who are applying the pesticide to the animal or the lawn, and this gap of safety is not always a huge one.

Fibromyalgia (literally meaning pain in the muscles, ligaments, and tendons) is another complex of diseases seen in humans that has so far eluded attempts to define or treat it. Of interest for dogs is the fact that fibromyalgia's symptoms – chronic fatigue, muscle and joint pain and stiffness, and cognitive dysfunction – are the same as those seen in some chronic cases of Lyme disease. In fact, Lyme disease may progress to a chronic multi-symptom form that appears much like fibromyalgia. What we ultimately learn about how to treat Lyme disease may thus be a good indicator for how we will eventually treat fibromyalgia in humans.

Most treatments for fibromyalgia are geared toward improving the quality of sleep and reducing pain. Massage and trigger point therapy may be helpful.

Interestingly, fibromyalgia in humans is one of many diseases that responds very well to canine therapy: fibromyalgia sufferers who have companion dogs seem to fare better – in terms of pain reduction, depression, and the ability to continue exercising – than those who go it alone.

Other rare hereditary diseases affecting dogs include **myotonia** (a condition in which muscle contraction persists after stimulation), a number of disorders of glycogen metabolism that influence the metabolic processes within muscles, and several diseases of the muscles that are found in one or only a few breeds.

Hypothyroidism has been associated with myopathy and neuropathy in humans, and there is some evidence it may also be a contributing factor in some dogs. **Hyperadrenocorticism** (Cushings disease) is a rare disorder that may create a variety of clinical signs of muscular dysfunction that ultimately result in muscle weakness and/or stiffness.

Myositis (inflammation of the muscles)

Generalized inflammatory myopathy of dogs has been associated with toxoplasmosis, systemic lupus, and leptospirosis. Clinical signs include weakness, pain, fever, muscular atrophy, and stiffness. Almost all cases of myositis have an autoimmune component, and some can be diagnosed using immunological testing and/or muscle biopsy. A disease of juvenile Collies has been described that is characterized by concurrent dermatitis and myositis, symptoms that often wax and wane over time.

There are several inflammatory conditions reported that affect the masticatory

(jaw) muscles, collectively referred to as masticatory muscle myositis (MMM) or masticatory muscle disorders (MMD). Some of these involve an eosinophilic infiltrate, and most are thought to be immune-system related. The dog has difficulty opening his jaw, and as the disease progresses, eating becomes progressively more difficult, and the jaw muscles atrophy. Corticosteroids may be helpful, although symptoms tend to recur. Alternatively, acupuncture or homeopathy may be effective.

Parasites of the muscles

Sarcocystosis is an invasion of muscles and other soft tissues by protozoans of the genus *Sarcocystis*, a coccidia-like organism. The

life cycle of the organism requires two hosts. Predator animals (dogs) are typically the final host; prey animals are the intermediate hosts where the organism forms cysts within the muscle mass. Dogs (and other predators) then pick up the cysts by eating infected meat; cattle (and other “prey” animals) are infected by sniffing predator feces.

Most often the cysts are asymptomatic, but occasionally they become so numerous and large that they cause muscle soreness. In some animals the cysts become large enough that they can be seen as white spots scattered throughout the muscle tissues.

There have been a few reports of serious illness and death in dogs (as the final host), associated with sarcocystosis, and

under some rare conditions, dogs can become the secondary host with invasion of cysts into muscle tissues. However, the real significance of the disease is that one mode of transmission is via ingestion of raw, infected meat.

Muscle tumors

Primary skeletal muscle tumors can be benign (rhabdomyoma) or malignant (rhabdomyosarcoma). Tumors may also spread or metastasize secondarily from other tissues, and local tumors may invade adjacent muscles. Treatment is surgical incision, chemotherapy, or radiation, depending on the tumor type. Acupuncture or homeopathic remedies may be tried.

What You Can Gain From Massaging Your Dog

Even though you probably pet and rub your dog every day, putting your hands on your dog with the intention of exploring the quality of his muscle tone can give you a new impression of his body – and possibly even lead you to discover muscle problems that would benefit from veterinary diagnosis and treatment.

Try to catch your dog at a moment when he is already relaxed and calm, perhaps lying on the carpet in the quiet hours before bedtime. Start out by petting him with long, soothing strokes, at a pressure that he appears to enjoy. If he shows any signs of discomfort – such as trying to get up or leave, growling, or nudging or bumping your hands with his nose – increase or decrease your pressure to see what calms and quiets him.

As you stroke him, try to detect areas where his muscles are warmer or colder, and note the quality of his skin and hair. Areas that are involved in chronic muscle spasm may have drier skin and rough hair or be noticeably cooler or hotter than the rest of his body. You may be quite surprised at what you find if you go slowly and really tune in.

As long as he stays relaxed, concentrate on the feel of his muscles. Healthy muscle tissue is smooth and relaxed, and when you palpate it, your dog will sigh with pleasure.

Chronically tight tissues may feel hard, stringy, or too-well defined, somewhat like a tight cord or rope. In some areas, the fibers may feel like a tangled knot or hard spot. Watch for muscle spasms – rippling motions of the tissue and adjacent structures – which indicate pain and nerve involvement. Your touch may actually trigger twitching or involuntary jumping of the fibers. Think of how your back, shoulder, or neck muscles feel after a long day of working in the yard or spending too many hours on the computer. Chances are, even when you lie down, the tightness and discomfort

remain. Your dog’s muscles are no different in their response to stress.

Beyond the telltale texture of the area, your dog himself will “tell you” where the trouble lies with his behavior. He will react differently when you touch a painful, tight area than when you touch a healthy, relaxed area. Note where you were touching when your dog began falling asleep, getting tense, or tried to leave. The really sore, flinching areas may be accompanied by your dog startling, growling, or jumping up.

While odd textures, spasms, and your dog’s body language will often show you painful areas, it is not necessarily a good sign if a dog shows no sensitivity at all. Older dogs or dogs with perpetually resigned attitudes may not react in any way to touch,

nor will some hard-working, fit dogs with high pain thresholds. Dogs who fail to react at all, even when you probe the muscles deeply, may be so tight that the area is numb, sort of like a clenched fist. This may signal a long-term problem.

In the course of your investigations from day to day or even week to week, you may find an area that is always tense and painful for your dog. If so, you’ll want to research and practice some massage methods or consider hiring a qualified canine massage practitioner to help relieve the muscle tension.

Once you really tune into your dog’s body structure, you might discover more serious problems, such as extreme sensitivity or numbness along the spine, limping, stiffness, shortness of stride after mild exercise, reluctance to play, inability to climb into the car or go up stairs, or toe dragging. If you observe these signs, consider having your dog seen by your veterinarian. Ideally, your vet is also a certified animal chiropractor or acupuncturist, or works with one.



Continue your massage only as long as your dog is relaxed and sighing (or falling asleep!) with pleasure. Increase or decrease your pressure as needed to keep him comfortable.

Overexertion and everyday maladies

The most commonly seen muscle problems are those that occur with the normal use and abuse that comes with daily living: sprains, strains, contusions, bruises, abrasions, lacerations, and infections extending from cuts and scrapes. But some cases of overuse can be serious, including:

■ **Exertional myopathy** (also known as Monday morning disease, rhabdomyolysis, or tying up), a disease that may produce muscle necrosis as a result of excess lactic acid buildup from overwork.

■ **Malignant hyperthermia**, a condition most frequently seen in heavily muscled dogs, typically after anesthesia and stress.

■ **Severe muscular trauma** that may cause muscular contraction and/or tendon rupture. Most of these conditions are limited to large or heavily muscled dogs or to working dogs such as racing greyhounds.

Most of the everyday maladies, however, if they need any treatment at all, respond well to alternative therapies: herbal antiseptics and antibiotics, alternative pain relievers, simple massage, or just an easy walk to enhance healing blood flow through the affected areas.

Remember that any strain of muscular tissues will cause the dog to compensate; four-legged animals compensate quite easily, quickly learning to walk on three legs. Whenever an animal alters his gait or posture, the compensation will extend into the spine, and a chiropractic adjustment will often be necessary to return the animal to normal function.

Alternative medicines

In my opinion, alternative medicines offer the perfect solution for most conditions of the musculoskeletal system – oftentimes creating more effective and longer-lasting healing than any Western medicine I ever tried. In fact, alternative medicines are so much better than Western medicines for most musculoskeletal problems I encounter, I almost always recommend them as my first and preferred treatment.

Acupuncture is good for almost any condition of the musculoskeletal system, because it decreases pain, allowing for enhanced mobility, which often speeds healing; enhances the flow of energy through areas where a blockage of natural flow has

Dog Massage Resources



Balance Your Dog: Canine Massage, by C. Sue Furman. Wolfchase Publishing, 2003. 304 pages

Canine Massage: A Complete Reference Manual, by Jean-Pierre Hourdebaigt. Dogwise Publishing, 2004. 183 pages

Effective Pet Massage for Dogs Manual, by Jonathan Rudinger. Effective Pet Massage Publishing, 1998. 150 pages. Rudinger also offers fantastic charts of the dog's muscles, bones, and joints and ligaments.

All are available from DogWise, dogwise.com or (800) 776-2665.

AUDIO-VISUAL

For a review of 11 instructional canine massage videos, see "All You Knead," WDJ November 2002.

occurred; and enhances the immune system (many causes of musculoskeletal disease are immune-related).

Chiropractic is indicated for any condition that involves both the nerves and muscles. Almost all muscle and joint problems also involve input from nerves, thus I typically recommend the combination of acupuncture and chiropractic for any condition of the musculoskeletal system.

Herbal remedies can be added to enhance healing, to decrease pain, and to help relax the animal. Many herbs also have very high levels of antioxidant activity, to help speed healing. Check with your herbalist for herbs to use, dosages, and methods of use.

Homeopathic remedies are helpful, especially for pain. Arnica is the classic remedy for treating muscular pain and joint sprains. Rhus tox is good for what homeopaths call the "rusty gate" syndrome: sore muscles and joints that improve with movement. Bryonia alba may be beneficial for the animal that gets worse the longer he walks or exercises. Pain that comes from irritated or damaged nerve endings may respond to Hypericum, and Ruta graveoleus may work on deeper pain. Check with your homeopath for doses and dosage schedules.

Nutrient therapy can be used to enhance the growth and healing of muscle tissue. A deficiency of vitamin E and selenium, for example, has been shown to cause muscle damage in some animals, and these and other antioxidant vitamins are excellent supplements for muscle health.

Massage and physical therapy are vital in cases of muscular problems. Massage is *the* prescription for sore muscles, and physical therapy can be used to help return an ailing musculoskeletal system to normal function.

There are literally dozens of different "schools" of massage, ranging from very light touch to deep massage of inner connective tissues. There are also scads of massage practitioners who work on animals at every level of proficiency – from those who have seen a video on animal massage to those who have completed several hundred hours of training; the quality of the massage is thus highly variable. Ask about the prospective practitioner's training, and ask for references. (See "Lay Your Hands On Dogs" and "How to Select a Canine Massage Provider" in WDJ July 2004.)

Physical therapy is often limited to animals recovering from surgery or severe injury, and should thus be a specific methodology aimed at the condition. Currently there are a few dozen people across the country who have studied physical therapy and are applying standardized techniques of the specialty to animals.

Massage, on the other hand, is a technique all of us can use on a routine basis. Simply rub and enjoy. Your dog will let you know what feels good and which body parts are sore – go gently on the sore areas. If you want to learn more about massage, there are several good books and videos on the subject, or you can attend one of several schools devoted to animal massage.

Finally, the best part about massage is that both the giver and the givee benefit. Studies have shown that simply rubbing your pet slows both your and your pet's heart and respiratory rates, enhances both your immune systems, and is whole-body calming for the two of you. 🐾

Dr. Randy Kidd earned his DVM degree from Ohio State University and his PhD in Pathology/Clinical Pathology from Kansas State University. A past president of the American Holistic Veterinary Medical Association, he's author of Dr. Kidd's Guide to Herbal Dog Care and Dr. Kidd's Guide to Herbal Cat Care (see page 24).



product news and reviews

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Hitting Some Nerves

Readers deal with their dogs' serious health problems.

I was particularly interested in "Not So Fast" (WDJ June 2005) about chronic renal failure (CRF). Recently, I lost my Sheltie to this disease, but it was complicated by a mass on one of her adrenal glands, which caused the hypertension. She was a victim of a Catch 22; the hypertension aggravated the renal failure and the renal failure aggravated the hypertension.

Due to her age (13½) and the level of difficulty and danger of the surgery to remove the mass (which would have addressed only the hypertension), I decided that I would not subject her to the surgery. I was informed by my vet that there wasn't a lot of "satisfaction" with these surgeries, which suggested to me that if my dog even survived the surgery, her life after the fact might not be very pleasant and that it might not add much to her lifespan.

I would love to see some future articles regarding hypertension in dogs (which I was informed is very rare). It is unfortunate that I did not know that my dog had hyperten-

sion until she suffered a hemorrhage in her right eye, which led to further diagnosis of the mass. I am surprised that unlike humans, who get their blood pressure checked every time they go to any doctor, you have to see a specialist to get a pet's blood pressure checked, and you have to get a referral just to see the specialist!

I would think that sooner or later this should become a common practice considering the expense of pet care after they are sick. The medication they gave my dog was so expensive (one was \$7 per pill and they wanted her on four a day to start) that I almost passed out at the pharmacy when they told me the price the first time I went to fill the prescription!

After reading your article, and after my own experience with the hypertension, I wish now that I had pressed my vet to test for some of the possible underlying problems mentioned in your article. Perhaps I might have been able to give us a few more years together.

Aside from being sad at her loss, I'm a bit angry with my lack of knowledge, and also that this information wasn't offered at the initial diagnosis of renal failure.

Denise Gray
Chanhassen, MN

We're very sorry to hear about your loss. We will have someone prepare an article about hypertension in dogs. It does seem to be more prevalent today.

In your article on chronic renal failure, and all the things that a dog can have that have similar symptoms but are *not* CRF, I missed something: What *are* the symptoms of CRF?

Name withheld by request

We did discuss the signs of CRF; sorry if this was less than clear.

The first symptom seen with chronic renal failure is almost always excess drinking and urinating. Other symptoms of renal failure do not show up until the process is quite advanced, and can include inappetence, nausea, vomiting, depression, bad breath, weakness, weight loss, ulcers in the mouth, anemia (pale mucous membranes), shivering, and muscle wasting.

The symptoms for chronic and acute renal failure are the same, but with acute renal failure, they come on very suddenly, while with chronic renal failure, they develop gradually over time. Since a dog with acute renal failure, or a dog in end-stage CRF, will appear obviously very ill, he should be taken to a vet, where blood work and/or a urinalysis will clearly show that the kidneys are affected based on creatinine and BUN levels, as well as urine specific gravity and protein in the urine.

One notable symptom of CRF listed here that was not mentioned in the article is bad breath, which can be related to kidney disease. It's important to add this, since some people will accept bad breath as being normal, and it's not.

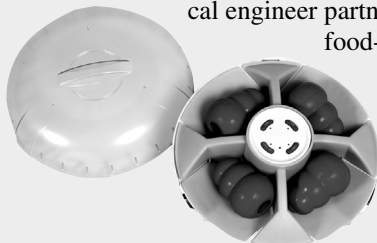
NOTE: We received a very long letter from Hills Pet Nutrition regarding "When

At Long Last! It's Finally KongTime!

Some time ago, I wrote an enthusiastic sneak preview of a product based on my experience with a prototype loaned to me by its inventors. But events conspired to delay the production of the item, while I (and its promoters) chafed with impatience. At last, this terrific tool is now available: **KongTime**™, a battery-operated machine that individually dispenses four food-filled Kong toys at intervals over a four- or eight-hour period (you decide). "Unstuffing" the Kongs helps keep your dog busy (and anticipating the next Kong) while he's home alone.

We frequently suggest using food-filled Kongs to occupy dogs. The strategy can give a bored dog something to do while you're gone, help prevent a dog from developing separation anxiety (SA); or help reduce the symptoms of a dog who already has SA (clawing at doors or windows, chewing things up, howling or barking, and urinating or defecating due to stress). Dreamed up by a dog trainer and her mechanical engineer partner, KongTime helps stagger the delivery of those food-filled Kongs so the dog can't "unstuff" them all in the first hour after your departure.

KongTime is available from petco.com (or Petco's toll-free order line: 877-738-6742); Pet Food Express stores (petfoodexpress.com or 877-472-7777); or from ProActive Pet Products, (proactivepet.com or 800-706-0308).



to Say No to Low-Protein,” an article about the practice of feeding low-protein diets to dogs with CRF that was published in the May issue. We’ll publish excerpts of that letter, as well as our response, in the September issue.

ALL GOOD DOGS?

Thanks for your Editor’s Note (“When All Dogs Were Good”) in the June issue. It brought back sweet memories of the dogs from my childhood. I have the same memories of our village dogs back in my youth. I think there are several reasons for the friendly behavior of these untrained, free-roaming dogs:

- Untrained dogs were allowed to be dogs.
- They had interesting, fulfilling lives with enough doggy socialization, problem-solving activities, and exercise.
- They were socially skilled with dogs and humans.
- They had no leash-induced communication restrictions.
- They were not treated as furry people.
- Aggressive animals were simply killed instead of counseled and treated with medicine (strict selection).
- The “backyard gene pools” produced more sound animals than the limited gene pools of purebred dogs.
- The mother dogs birthed and raised their puppies themselves. The unsound and sick puppies died by natural selection.
- Dogs mostly lived outside, were more ignored and less doted-on, which sent them the message of a lower status.
- They didn’t have to wear Halloween costumes!

Irma Kapsenberg
Gentle Dog Training
Corvallis and Newport, OR

I am 62 and have had the same observations you made in your “When All Dogs Were Good” editorial. Actually, one of my brothers and one of my sisters were bitten on two separate occasions, but both dogs

had current rabies vaccinations. The incidents were handled by the parents, not the insurance companies, politicians, etc. A lot of your readers may not like what you said, but I loved it and wish we could reclaim some of those times.

Barbara Tyndall
via e-mail

I enjoy your monthly editorials. The “When All Dogs Were Good” one really hit hard on a couple of levels. First, I grew up in the rural environment you described, so I identified with your descriptions. Second, I teach at a university and got my June issue after coming home from a workshop on “Lack of Student Civility in the University Classroom.” After reading your editorial it occurred to me that the same “freedom-filled environment of semi-neglect” is as important for kids as for dogs.

Keep writing and I’ll keep reading.

Ed L. Kancel
via e-mail

Thanks so much for WDJ! I so look forward to getting it, and have found info there I never would have found otherwise. I especially love reading what sensible Pat Miller has to say. We showed obedience together 15 years ago.

Thanks also for the editorial on good dogs. It’s interesting to look back on how dogs were treated differently in the old days – the old days for me being 60 or so years ago in Illinois. The neighborhood dogs were more taken for granted, and as you say, mostly met their ends by being hit by cars. Ours were purebred and we did take them to training classes, but that certainly was not the norm.

I always feel that if you expect a dog to be good, you can kind of magically will him into your expectations – and people back then did that more often.

Now a lot of dogs seem to be venerated, catered to, and fawned over. Same as my daughter’s little boys – I call them Hope Diamond Babies, because they’re so set up on pedestals. A Berkeley psychologist has written a book called *The Epidemic*, which deals with this syndrome.

Of course, I’m sometimes guilty of making too much of my dogs – a problem I don’t seem to have with my grandchildren. I love to say no to them, no doubt because my daughter never does!

Julia Bartlett
Bartlett’s Barkless School for Dogs
Point Reyes Station, CA

REPLACEMENT COPIES



My husband and I love WDJ and apparently so does our Boston Terrier, Bandit.

Katie Simmons
Harlingen, TX

We feel compelled to tell you that replacement copies can be purchased online at whole-dog-journal.com/pub/backissues.html.

POOP BAGS REVIEWED

To your review, “Straight Poop on Bags” (June 2005), I would ask a few questions:

Is it appropriate to compare a mitt with a bag? A mitt is designed as a disposable pick-up tool, while a bag is a flexible container for holding objects and incongruous as a pick-up device. A mitt contains twice as much material as a bag of the same size. A mitt has five times the pick-up capacity as a bag and 10 times the strength to resist puncturing.

Why the positive rating for “compostable” bags? It is against the law to compost pet waste. Human behavior and existing municipal services are such that almost all the other used pet waste bags enter the solid waste stream and are buried in local landfill. Landfills are designed, by law, to prevent degradation and a “compost bag” that carries the ASTM 6400 certification will perform no better than the generic grocery store bag. In 1993, Intelligent Products Inc. discontinued the manufacturing of the Bio Mitt and introduced the Mutt Mitt, which incorporates three degradation techniques so that it will degrade in all current methods of disposal. As we become more environmentally responsible, Mutt Mitts have the flexibility to permit the recycling of both pet and human waste.

How relevant are the costs? A pet owner will use 2.6 bags per pick-up instead of one Mutt Mitt.

A prioritized list of the design criteria for the Mutt Mitt would start with the health and safety of the user, followed by its function, convenience, versatility, environmental impact, and cost.

Dale L Barden, Intelligent Products Inc.
(maker of Mutt Mitts), Burlington, KY

We like the fact that “compostable” bags leave behind no plastic residue at all. 🐾



RESOURCES

BOOKS

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

Dr. Kidd's Guide to Herbal Dog Care and *Dr. Kidd's Guide to Herbal Cat Care* are published by Storey Books, (800) 441-5700 or storeybooks.com

SUPPLEMENTS

National Animal Supplement Council, PO Box 2568, Valley Center, CA 92082. (760) 751-3360; www.nasc.cc

TRAINING AND INSTRUCTION

Sandi Thompson, Sirius Puppy Training, Berkeley, CA. Group classes for puppies and adolescent dogs. (510) 658-8588 or siriuspup.com

Pat Miller, CPDT, Peaceable Paws Dog and Puppy Training, Hagerstown, Maryland. Train with modern, dog-friendly positive methods. Group and private training, Rally, behavior modification, workshops, intern and apprentice programs. Call her at (301) 582-9420 or see peaceablepaws.com

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

HOLISTIC VETERINARIANS

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

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WHAT'S AHEAD

Shipped Fresh and Raw

The market for commercial raw diets has exploded. Here's what to look for in a diet you can count on for your dog.

Leash Envy

The best basic leashes, and some tricked-out models you have to see to believe!

Savvy Salves

Recipes for making your own safe, effective, healing ointments and salves.

Trust Your Feelings

How your intuition can sometimes tell you something about your dog that even your vet or trainer couldn't figure out.

Preparing for Success

Don't bring that puppy home quite yet! Here's how to get your new pup, his new home, and his new family ready for his arrival.

Update on Digestive Enzymes

More people than ever are feeding digestive enzymes to their dogs. We have new cautions and recommendations.