

DOG Watch

Expert information on medicine, behavior and health from a world leader in veterinary medicine

Vol. 18, No. 4 & April 2014

Dogs Sense the Magnetic Field 2 Perhaps it isn't a surprise, given their extraordinary homing abilities.

Who Was Their True Ancestor? A study challenges the conventional wisdom dogs evolved from gray wolves.

Essentials of the First Exam

The veterinarian checks a puppy from nose to tail looking for abnormalities.

Ask the Experts

A pulling, lunging Maltese-Poodle acts like every walk is the Iditarod.

IN THE NEWS ...

Service Dog Success: More Than Navigation

The Duke Canine Cognition Center, dedicated to the study of dog psychology, and Canine Companions for Independence, a provider of free service dogs and training, have embarked on what they describe as a first: a yearlong program to identify traits that predict the success of assistance dogs.

The goal is to increase the number of service dogs and reduce their attrition rate while at the same time ensuring their well-being and emotional health. Researchers will use cognitive games to determine dogs' potential effectiveness — whether it's their ability to communicate, have empathy for humans or independently solve problems.

Eventually, the center will compare service dogs to pet dogs, explaining that the skills necessary for service dogs — such as navigational ability — differ from pet dogs who must have better social skills.

Evan L. MacLean, Ph.D., at Duke University is leading the study, funded by the AKC Canine Health Foundation. &

Facing a Hard Fact: Our Dogs Are Fat

More than 50 percent are overweight or obese, which can stress arthritic joints and lead to serious disease

Teterinarians classify 53 percent of dogs in the U.S. as overweight or obese, according to a study by the Association for Pet Obesity Prevention. That's one out of every other dog or about 37 million. The association calls the situation without irony - an "expanding epidemic."

But it's no laughing matter. Excess weight diminishes a stock dog's quality of life. It's hard on arthritic joints and with extra vitamins and minerals. can lead to

Aggressive weight loss can be accomplished with therapeutic foods fformulated

kidney, liver and gastrointestinal disease and cancer, says Joseph Wakshlag, DVM, Ph.D.,

> Associate Professor of Nutrition at the Cornell University College of Veterinary Medicine.

Q: How do you define overweight or obese, Dr. Wakshlag?

A: On the Purina Body Condition System (on page 5), a one-to-nine score is the range. Traditionally, four to five is optimal for dogs. As they age, five is better, and

five-and-a-half isn't so bad, but you don't want to get above that. Obese is eight or nine. Dogs tend to gain weight and maintain that overweight

(continued on page 4)

Making a Daunting Disease Manageable

While Cushing's diagnosis and complications can be difficult, the prognosis is favorable in most cases

When an older dog's legs become wob-bly, his abdomen sags and he needs to make more frequent trips outdoors, it would be easy to dismiss the signs as a normal part of aging. He could, however, have Cushing's, an over-production of the hormone cortisol. Its diagnosis can be difficult, and its complications significant, but, fortunately, in most cases the prognosis is good.

Although it may be referred to as Cushing's disease or syndrome, the technical name for the condition is hyperadrenocorticism (HAC). Whatever its name, the disease can be daunting for dogs and owners. "Cushing's is an umbrella term that refers to a chronic excess of corticosteroids," says Marnin Forman,

DVM, ACVIM, Section Head of Internal Medicine at Cornell University Veterinary Specialists in Stamford, Conn.

Endocrine Disorder. "It's one of the most common endocrine disorders in dogs, with about one to two cases per 1,000 dogs per year. While testing and treatment for HAC can seem overwhelming," Dr. Forman says, "the most important step is seeing a veterinarian with experience treating Cushing's. This can make a complex disease seem much clearer and manageable."

Among the challenges: Early signs resemble those of other diseases in addition to those naturally occurring with age and they develop

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Study Suggests Dogs Sense the Earth's Magnetic Field

Scientists have long been fascinated with the effect of the Earth's magnetic field on animals. They've learned that cattle and deer graze in a north-south direction along the Earth's magnetic lines, and birds and fish use the lines in their migration.

In the latest discovery, published in the journal Frontiers in Zoology, German and Czech biologists suggest that dogs eliminate aligned north-south when the magnetic field is calm, which is about 20 percent of daylight hours. The finding shows for the first time that dogs have magnetic sensitivity, the researchers say, adding that the sensitivity was a reasonable expectation, given the "extraordinary homing abilities" of dogs.

The researchers observed 37 unleashed breeds — a total of 70 dogs — during 1,893 defecations and 5,582 urinations over two years. They then compared the information with geomagnetic conditions during the sampling. While dogs of both sexes faced north or south while defecating, females only urinated north or south. And for reasons undetermined, most dogs avoided facing east or west. "It is still enigmatic why the dogs do align at all," the authors of the study acknowledge.

Furthermore, they found that when the Earth's magnetic field was unstable during events such as solar flares and geomagnetic storms, the dogs' north-south preference was less predictable. "We found that dogs are magneto sensitive, and they are predictably disturbed by even small changes of the (magnetic field)," Dr. Sabine Begall, a participating zoologist at the University of Duisburg-Essen in Germany, told

The researchers call for additional studies, including those to uncover more information about "the internal compass inside living organisms."

Dogs' True Ancestor?

HuffPost Science.

A study using DNA analysis has challenged the conventional wisdom that dogs evolved from gray wolves. Instead, researchers say the progenitor of both dogs and wolves became extinct thousands of years ago. They say the study, published in PLoS Genetics, found dogs are more closely related to each other.

The similarities we find between dogs and wolves? They're more likely the results of interbreeding, says Robert K. Wayne, Ph.D., co-author of the study and professor in the Department of Ecology and Evolutionary Biology at UCLA. "The common ancestor of dogs and wolves was a large, wolf-like animal that lived between 9,000 and 34,000 years ago. Based on DNA evidence, it lived in Europe."

Dr. Wayne and his colleagues generated genome sequences from three gray wolves, one each from China, Croatia and Israel — the areas where dogs are believed to have originated. They developed genomes for a Basenji, a breed originating in Central Africa, and an Australian dingo — two areas without modern wolf populations. The scientists also sequenced a golden jackal's genome as an example of an outside group.

Rather than the three dogs being closely related to one of the wolf lineages, the DNA points to the dogs having descended from an unknown wolf-like ancestor, the researchers say.

Previous studies suggested that dogs evolved from friendly wolves domesticated by the early farmers. This latest study claims the earliest dogs may have lived in huntergatherer societies and later adapted to agricultural life. •

New research points to dogs' being more closely related to each other rather than the gray wolf.



GSTOCK

DOGWatch

Essentials of the First Puppy Exam

The veterinarian will check for abnormalities from nose to tail, and will address any behavior concerns

Though unsupported by statistics, puppy season — an increase in litters and adoptable pets — is believed to last from spring through summer. If you're the proud owner of a new puppy — congratulations!

Tops on your to-do list: a full veterinary examination to help ensure many happy years together and prevent your newest family member from passing a parasite or disease to other pets or, in unusual cases, to people.

"Examinations are important to help identify problems early so that we can start any necessary treatments promptly," says Brian Collins, DVM, a lecturer in Community Practice Service at the Cornell University College of Veterinary Medicine. "Fortunately, the majority of puppies we see are healthy with only minor problems such as parasites. Most puppies leave their first visit with a nearly clean bill of health."

Limited Lab Tests. While the veterinarian will look over your pup closely, lab work often will be limited to a test of his stool to help uncover parasites. Needed vaccinations will depend on the puppy's age, Dr. Collins says. "Vaccines are usually started around 6 to 8 weeks of age and then repeated every three to four weeks until 14 to 16 weeks of age. The age at adoption and the vaccine history will determine if and when further vaccinations are necessary. We also discuss the need for non-core vaccines based on the puppy's anticipated lifestyle and geographic location."

Additional tests on puppies are unlikely unless they are ill, Dr. Collins says. Here's what to expect at a new puppy exam:

THE PHYSICAL

Purpose: determine overall health. "We keep our eyes and ears open for anything abnormal," Dr. Collins says. "We do a thorough exam from nose to tail."

The essentials: A check of the pup's temperature and heart and respiratory rate. Veterinarians will also look for heart murmurs, fontanelles (soft spots in the skull when bones fail to close), abdominal hernias and lameness or orthopedic abnormalities. They make sure the testicles have descended into the scrotum as they should by 2 months of age.

Veterinarians take note of coughing, runny nose or eye discharge — all possible signs of infection. They peek into ears and examine the skin for abnormalities or external parasites. If a pup has a history of vomiting or diarrhea, veterinarians will feel the abdomen for abnormalities.

THE ORAL EXAM

Purpose: to check for overbite, underbite, missing teeth, extra teeth and cleft palate. The essentials: Veterinarians will also discuss daily home dental care and safe chew toys. Hard toys that can damage teeth aren't recommended. Small breeds and short-muzzled dogs can be predisposed to certain dental problems, according to the American Animal Hospital Association (AAHA).

CHECK FOR PARASITES

Purpose: to find and eliminate parasites. The essentials: "It is helpful if the client brings a fresh sample of the dog's stool," Dr. Collins says, "so that it can be inspected for any gross abnormalities as well as a microscopic examination for parasites." If the pup has gastrointestinal problems, his stool may be tested for parvovirus. "If any signs of gastrointestinal parasites, fleas, ticks or ear mites are found, we will develop a treatment plan for the puppy," Dr. Collins says.

NUTRITION

Purpose: to make sure the puppy has appropriate food during this period of rapid growth.



The veterinary exam will include a check for heart murmurs, hernias and lameness.

The essentials: Veterinarians will check body condition. Is the puppy too thin? Overweight? His weight will be recorded and monitored.

BREED-SPECIFIC SCREENING

Purpose: to check for early signs of hereditary diseases considered common in the breed. At least two-thirds of dog breeds have at least one recognized genetic disorder, according to the AAHA.

The essentials: Veterinarians examine the pup's body for abnormal signs.

BEHAVIOR SCREENING

Purpose: to gauge whether the cute nippy puppy shows behavior problems that should be addressed now before he turns into a 100-pound biter.

The essentials: The veterinarian may ask if you have specific concerns about the puppy's behavior. The AAHA advises veterinarians to encourage puppy preschool and group socialization, discuss the benefits of crate training for safety and housetraining, and how to discourage pups from biting.

Sign up for group classes before the pup is 4 months old to help socialize him, the AAHA advises in its "Canine Life Stage Guidelines," adding, "Young dog behaviors often break the humananimal bond at this phase."

The guidelines' encouraging news: "Early consultation helps correct nuisance behaviors with greater ease during the puppy and junior stages than if they are allowed to persist or are dealt with inappropriately."

WEIGHT... (continued from the cover)

or obese status since fat tissue is not very metabolically active. Dogs tend to not be as active when obese, so you really need to cut calories to get weight loss.

Q: What is the best way to keep pounds off?

A: Understand the body condition scoring system. Don't feed according to what the bag label says, but what the body condition is. Typically, what a puppy is eating at around 4 to 5 months of age is about the amount that the dog will need as an adult. For the giant breeds, it's more like 6 to 7 months.

Q: What treats are appropriate for overweight pets?

A: Treats are part of the problem. Most consumers don't consider pizzle sticks, pig ears or rawhide as having calories. Rawhide is about 200 calories for an aver-

FOR THOSE WHO NEED TO GAIN WEIGHT

Shelter workers and those who foster underweight dogs often face challenges in encouraging the animals to eat. "The GI tract and its absorptive surfaces are atrophied in cases of malnutrition," says nutritionist Joseph Wakshlag, DVM, Ph.D., at Cornell. "It's a plastic organ in the way it adapts to too much or too little food. Feeding a dog a lot immediately is not ideal. Feed these dogs based on the same calculation as we did for the heavy dog (on this page) for the resting energy requirement and work your way up for two or three days.

"If there is no diarrhea, then move up 20 percent, then another 20 percent after another few days, and he should start to gain weight within the end of that week. Feed him around 30 calories per pound to gain weight, based on what the dog's ideal body weight should be. Some dogs adapt quickly, but some get diarrhea no matter what and need to be handled with more incremental increases, but most do very well once fed properly."

age piece for a 50-pound dog, so you're looking at 20 percent of daily caloric intake for that treat.

The calories in treats, like pizza crusts and rawhide, have to be accounted for. It's like our eating two king-sized Snickers a day and thinking we could lose weight. Consider a rawhide as a Snickers bar. As an alternative, we often recommend green beans since they have around 35 calories per cup or raw small baby carrots at around 5 calories per small carrot.

But you have to watch out. We once had a Newfie owner who was feeding two bags of carrots a day, and we calculated that was around 400 to 500 calories per day.

Q: Are therapeutic weight-loss diets —the kind you buy at the clinic - healthy?

A: All the therapeutic foods designed for weight loss are healthy and pets can stay on them for years if need be.

Q: What's the best way to lose weight?

A: We can do aggressive weight-loss with therapeutic foods formulated to have extra vitamins and minerals so dogs are getting what they need. When I go to the supermarket and get a "light" formula and give only 60 percent of what it says to give, it can potentially shortchange that dog on vitamins and minerals. That's why we recommend therapeutic diets. They help with satiety and have a higher proteinto-calorie ratio as well as carnitine (a substance that helps the body turn fat into energy) that may help maintain muscle mass during weight loss. They can optimize weight loss, and that's why they are more expensive. You can sometimes get a high-protein, low-calorie food from the grocery store, but you risk shortchanging vitamins and minerals.

Many people make a mistake by switching brands. Let's say they give a highend weight loss food although they don't know how many calories it has. Then they switch to weight management in another brand and cut back, so instead of three cups, the dog gets two cups. But foods from different manufacturers have different calorie levels — there is a huge range — so unless you know the number of calories in each one, you could feed less but still give

Foods from different manufacturers have a wide range of calories. Most don't list calorie levels on food bags, so check their



more calories. You may not be doing your dog justice. Stay with the same brand or same family of products and use the weight management or "light formula," as this will definitely have fewer calories than the product from the same brand that was for adult maintenance. Most of the manufacturers list calorie counts on their website - not the bag — or you have to phone them.

Q: How do you determine how many calories per pound to give to achieve weight loss?

A: Have your dog's vet help with the calculation and use the ideal body weight as a guide. Typically, you need around 15 calories per pound of body weight for weight loss. That's the resting energy requirement to lie around all day and not move. It's a good place to start since most dogs do some moving throughout the day.

Let's say my dog is 100 pounds but he should be 80. I multiply 80 by 15 calories to get the resting weight requirement, but you usually have to go lower than that. The 80-pound dog needs 1,200 calorie at a resting rate. That might work for a high-activity dog, but most people have to drop it back more. Every dog is different which is why it's a good idea to get your veterinarian involved since many vets have computer programs that will help you track weight loss.

Q: Any parting advice?

A: From a veterinary perspective, weight gain can come from metabolic issues such as hypothyroidism, so it's a good idea to have blood work done to make sure that you won't be fighting an uphill battle against hypothyroidism.

Ideal weight loss is between one to three percent per week, and your veterinarian can help you track this and recommend therapeutic foods based on lifestyle since all therapeutic diets are not created equally. Some are high in fiber for satiety and others are not. *

APRIL 2014 **DOG Watch**

Nestlé PURINA BODY CONDITION SYSTEM

Ribs, lumbar vertebrae, pelvic bones and all bony prominences evident from a distance. No discernible body fat. Obvious loss of muscle mass.

NHL 00

Ribs, lumbar vertebrae and pelvic bones easily visible.

No palpable fat. Some evidence of other bony prominence.

Minimal loss of muscle mass.

3

Ribs easily palpated and may be visible with no palpable fat. Tops of lumbar vertebrae visible. Pelvic bones becoming prominent. Obvious waist and abdominal tuck.

DEAL

Ribs easily palpable, with minimal fat covering. Waist easily noted, viewed from above. Abdominal tuck evident.

Ribs palpable without excess fat covering. Waist observed behind ribs when viewed from above. Abdomen tucked up when viewed from side.

6

Ribs palpable with slight excess fat covering. Waist is discernible viewed from above but is not prominent. Abdominal tuck apparent.

EAVY

Ribs palpable with difficulty; heavy fat cover. Noticeable fat deposits over lumbar area and base of tail. Waist absent or barely visible. Abdominal tuck may be present.

8 20

Ribs not palpable under very heavy fat cover, or palpable only with significant pressure. Heavy fat deposits over lumbar area and base of tail. Waist absent. No abdominal tuck. Obvious abdominal distention may be present.

9

Massive fat deposits over thorax, spine and base of tail. Waist and abdominal tuck absent. Fat deposits on neck and limbs. Obvious abdominal distention.

The BODY CONDITION SYSTEM was developed at the Nestle Purina Pet Care Center and has been validated as documented in the following publications:

Mawby D, Bartges JW, Moyers T, et. al. Comparison of body fat estimates by dual-energy x-ray absorptiometry and deuterium oxide dilution in client owned dogs. Compendium 2001; 23 (9A): 70 Laflamme DP. Development and Validation of a Body Condition Score System for Dogs. Canine Practice July/August 1997; 22:10-15

Kealy, et. al. Effects of Diet Restriction on Life Span and Age-Related Changes in Dogs. JAVMA 2002; 220:1315-1320

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CUSHING'S ... (continued from the cover)

slowly. These include an increase in thirst, urination, appetite and weight. The disease originates from either the pituitary or adrenal glands, or from medication.

Some background: The pituitary is a small gland in the base of the brain that controls the endocrine glands and their hormones. Two tiny adrenals in front of the kidneys, secrete hormones that regulate adrenaline, blood pressure, sodium and sugar levels.

Cortisol, also called glucocorticoid or corticosteroid, is the hormone in over-production and serves vital functions. It's important in the health of all cells in the body and helps maintain normal blood sugar levels, immune system response, muscle mass and intestinal health.

Cushing's disease caused by the pituitary gland is called pituitary-dependent. It's the most common type, accounting for about 85 percent of the cases. Nearly all the affected dogs — 90 percent or more — have a pituitary adenoma, a tumor causing excess secretion of the hormone ACTH. The adrenal glands respond to ACTH by producing more cortisol than needed.

Less Common Type.

Adrenal-dependent
Cushing's syndrome is less
common and results from a
tumor in a single adrenal
gland. A secondary effect is that the other
adrenal gland tends to
decrease in function
(atrophy).

Iatrogenic
HAC — induced
by medical treatment — occurs
with longterm administration of
steroids used

German Shepherd Dogs are predisposed to adrenal-dependent Cushing's disease, along with larger Poodles and Dachshunds.

BIGSTOCK

to treat conditions such as allergies or autoimmune disease.

Complications resulting from Cushing's are common, particularly in untreated cases. The most common are infections of the skin and/or urinary tract. More than half of the dogs with HAC develop hypertension, "but it's usually mild to moderate and not too difficult to manage," Dr. Forman says. "Diabetes mellitus can develop due to chronic high cortisol levels and is almost always permanent and more challenging to manage."

Diseases with similar signs include diabetes mellitus, and thyroid, heart, liver or kidney disease. They should be ruled out with blood work and urinalysis. Lab work — a biochemical panel — with elevated liver enzymes or cholesterol can point toward Cushing's. A dog's health history and physical appearance are cues that signal the veterinarian to order HAC screening tests. "In some cases, two screening tests are needed," Dr. Forman says. These include:

The measurement of the urine cortisol level collected at home when the dog awakens. Almost all affected dogs will test positive; however, some dogs without Cushing's may have high levels of cortisol in their urine.

◆ An ACTH stimulation test.

The cortisol blood level is checked before the test, then ACTH is injected and cortisol is rechecked one to two hours later. This is the only screening for iatrogenic hyper-

- adrenocorticism, but it's also used to screen for other forms of HAC.
- ♦ A low-dose dexamethasone suppression test. Dexamethasone, a form of cortisone, is administered intravenously. Stress is avoided when the test is performed because it can alter results. Cortisol blood levels are measured before and at four and eight hours afterward. Many veterinarians consider the test the most accurate for HAC, Dr. Forman says.

Veterinarians may also order ultrasound and X-rays to locate an adrenal tumor and visualize the size of the adrenal glands. When a pituitary tumor is involved, a CT scan or MRI of the brain may be needed. It's important to know that, although ultrasound, X-rays, CT or MRI are very helpful in determined an organ's size, they don't give any information on function — for example, the excess production of cortisol.

The goal of treatment is to resolve the clinical signs that undermine the dog's quality of life. The therapy for pituitary-dependent Cushing's is mainly by medical management. The drugs include:

- Mitotane (Lysodren). This very effective medication can work in one week, but it's older and has been replaced by Trilostane in most cases.
- Trilostane (Vetoryl). This is also an effective medication and FDAapproved treatment for pituitarydependent HAC.

THE VULNERABLE BREEDS

A dog's profile — age, size and breed — is one clue to diagnosing hyperadrenocorticism. It normally occurs in dogs at least 9 years old, with the average age around 11½ years. Females have a slightly higher chance of developing HAC than males.

About 75 percent of dogs with pituitary Cushing's usually weigh less than 44 pounds. Beagles, Boston Terriers, Yorkies and other terriers, and small Dachshunds and Poodles are more likely to be affected. In adrenal-dependent Cushing's, about half the affected dogs weigh more than 45 pounds, with German Shepherd Dogs and larger Poodles and Dachshunds being pre-disposed.



Signs of Cushing's can include over-eating, a pot-bellied abdomen and fatty deposits on the hindquarter, known as "Cush tush."

 Ketoconazole, an anti-fungal that inhibits production of steroids, requires twice-daily dosing. Some dogs' systems cannot utilize it.

The drugs' side effects vary and can include gastric upset and weakness. Radiation therapy can reduce a large pituitary tumor in pets with a large mass deep in-

side the brain. However, the procedure is costly and few clinics offer it.

The preferred treatment for adrenal-dependent Cushing's is surgical removal of the adrenal gland tumor at a specialty hospital. Serious complications involving effects on adrenal hormone levels can occur but are uncommon. Prognosis is favorable when the dog survives a two-week

recovery period. Afterward, lifelong cortisone supplementation may be necessary or until function returns in the other gland.

Iatrogenic HAC is treated by stopping the prescribed steroid, usually in a tapering dosage. Cushing's clinical signs aren't permanent, but it may take months for them to disappear. Once treatment begins, regular ACTH stimulation tests are repeated, as are routine blood and urine analysis. Potassium and sodium levels are closely watched since in some pets the control of potassium and salt are affected.

Dogs with HAC are usually older with other health problems. The average life span after diagnosis is about three years, but it's likely that, with careful management of Cushing's, old age will first take its toll. "It is very common," Dr. Forman says, "for owners of dogs with Cushing's to look back and remark how lively and happy their pets were after they were treated." *

IN THE FUTURE, A TEST OF THE HAIR?

Current testing methods for Cushing's disease can be involved, expensive and sometimes inconclusive. One reason is that cortisol levels can fluctuate daily, even hourly, or in stressful environments.

Now Veterinary Dermatology journal reports researchers at the University of Veterinary Medicine in Vienna, Austria, hope to streamline diagnosis. Comparing levels of cortisol and its other forms corticosterone and cortisone in the hair of 12 dogs with HAC and 10 healthy dogs, they found all three hormones were at far higher levels in the hair of dogs with Cushing's disease.

"Measuring cortisol in hair is so much easier and less painful to the animal than other tests for the disease, and we think it has real promise for use as a rapid and non-invasive method to diagnose hyperadrenocorticism," the researchers said. Unfortunately, the test is currently unavailable and doesn't allow differentiation between pituitary-dependent and adrenal-dependent HAC.

A WIDE RANGE OF SYMPTOMS

Although some dogs with hyperadrenocorticism experience vague clinical signs, 80 to 90 percent of them exhibit:

- Frequent, excessive drinking and urination
- Over-eating leading to weight gain and obesity
- Pot-bellied abdomen
- Exercise intolerance, panting and lethargy

Additional clinical signs can also include:

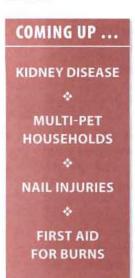
- A "Cush tush," fatty deposits on the hindquarter
- Hair loss, usually symmetrical, and dull dry hair
- Dry flaky, skin, change in skin color and calcium deposits under the skin
- Bruising, or striae lines in the skin that resemble stretch marks
- Muscle weakness or wasting, especially of the pelvis, thighs or shoulders, which impacts mobility, particularly in larger dogs
- Enlarged liver
- Behavioral and mood changes, including aggression or depression, changes in sleep patterns
- Neurological signs, such as dullness, decreased vision or seizures if a large pituitary tumor is present



Katherine A. Houpt, VMD, Ph.D., here with her Carin Terrier, Denver, provided the answer on this page. Dr. Houpt is a diplomate of the American College of Veterinary Behaviorists and emeritus professor at the Cornell University College of Veterinary Medicine.

Please Share Your Questions
We welcome questions of
general interest on health,
medicine and behavior.
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we cannot comment on
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When Your Dog Thinks Every Walk is the Iditarod

How can I stop my 5-year-old Maltese-Poodle from pulling on walks? He's an otherwise sweet little fellow — about 15 pounds — but becomes a tyrant when we walk, whether it's on sidewalks or grass in the park. He'll walk politely for a few steps and then lunge into a flower bed or bush to sniff. I know that's how he explores his world, but I'm a senior with balance problems and don't want to fall.

A trainer said to reward him with treats when he walks nicely, but he's trained to sit for treats. If I say, "Good Easy!" and give a treat, he sits and then goes about pulling again. I surely would appreciate any advice you could offer.

The easiest way to deal with your Malti-Poo's pulling problem is to gain mechanical advantage. You did not mention whether you use a collar or a harness, but I bet it's a harness. Sled dogs wear harnesses, and most dogs pull against them. Your little dog thinks that every walk is the Iditarod.

The best way to get a mechanical advantage is to use a head halter. The one I like best was invented by the late, beloved behaviorist, R.K. Anderson, DVM. It is the Gentle Leader and is available widely. The principle is that the pressure around the nose is more effective in slowing the dog than pulling on the collar. Where the head goes, the body follows.

Essentially, you are turning the dog toward you. Hold the leash, and if he reaches the end, he will be turned back. Use a plain leash, not a retractable one because the latter exerts a constant pull on the dog's nose whether he pulls or not.

Other head collars are available, including Halti, Guardian Gear and Sporn. There is a harness that operates on the same principle as the head collar — the Easy Walk Harness. It has a ring in the middle of the chest instead of the back, but I prefer the head collars. You should avoid punitive pinch

collars. If you had a 50-pound, thick-necked, stoical dog, I might be persuaded, but I think you can control your little dog without inflicting pain.

The first step in using a head collar is to fit it properly. The Gentle Leader comes with a DVD illustrating how to fit it. It should be snug around the neck, positioned high on the neck just behind the ears. The nose loop is tightened with a slider that can be locked (and unlocked with a coin and great effort) when the fit is perfect. The nose loop should be as loose as possible but unable to be pulled farther forward than the fleshy part of the dog's nose. Otherwise, he could claw it off.

The next step: teaching your dog to love the collar. Many dogs will claw, almost standing on their heads, but if you introduce it properly and take him out for an exciting walk, he should readily adapt to it. If he does claw at it, pull up on the leash so he has to sit and immediately release the pressure so he learns giving to the pressure releases it. You can use food to distract him — I like a can of squeeze cheese.

Mention of food brings me to behavior modification. So far your Malti-Poo has a one-word vocabulary ("Sit"), and we know that dogs, or at least one Border Collie, can learn almost 1,000 words. Among all the words he could learn, the one you need most is "Heel." You can teach him to heel. For your circumstances, I would recommend using peanut butter on a long-handled spoon. As long as your dog does not pull, give him a lick of peanut butter every few steps. After a few days, introduce the word "Heel" just as you lower the peanut butter. After another few days, you may need the peanut butter only occasionally. He should not be heeling on the entire walk, because as you correctly observed, he wants to explore his environment.

Finally, you could reduce his motivation to run on walks. Before you take him outside, play fetch with him so he has used up some of his energy running up and down your hall before he is even on leash. To reiterate, you should have the proper tools to control your dog and proper training so you both can enjoy safe walks. *

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