

# DOG Watch

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

Vol. 19, No. 5 ♦ May 2015

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## IN THE NEWS ...

### Scientists Study a Nonsurgical Way to Sterilize Cats and Dogs

Researchers have struggled for years to develop a nonsurgical way to sterilize dogs and cats. Now the Gary Michelson Found Animals Foundation has awarded a Harvard professor of bioengineering a \$700,000 grant to develop a vaccine to sterilize the animals by disrupting a hormone responsible for reproduction.

David Mooney, Ph.D., hopes to extend his team's work in implantable, injectable vaccines that activate the immune system to fight cancer and infectious disease to develop a one-time contraceptive vaccine. The focus: the gonadotropin-releasing hormone that controls reproduction.

At Cornell, S.H. Cheong, DVM, Ph.D., a specialist in theriogenology (reproduction), says the possibility of avoiding surgery is reason enough for pet owners to celebrate: "The ease of use would maximize veterinary labor at shelters. An implant could potentially be designed to also include vaccines for rabies and other diseases, reducing the number of injections for pets and help control disease in feral populations." ♦

## Learn the Truth about Supplements

*Some may be helpful, but their safety isn't regulated, and few large studies of effectiveness have been done*

**M**anufacturers in the \$1-billion pet supplement market would like dog owners to believe that an array of their products, ranging from glucosamine to fish oil to vitamin pills, will help our dogs live longer, healthier lives. Whether those supplements are actually effective is not known. Few large-scale studies have been done, and governmental oversight and regulations do not exist.

Nutritionist Joseph Wakshlag, DVM, Ph.D., ACVN, at Cornell Univer-



**Don't rely on word-of-mouth** about supplements, says Cornell nutritionist Joseph Wakshlag, DVM, Ph.D. Ask for a veterinary consultation.

sity College of Veterinary Medicine believes there is little proof that many of the promotional claims about supplements are accurate; however, one study on deep-sea fish oil has shown it can be beneficial. Dr. Wakshlag, president-elect of the American College of Veterinary Nutrition, explains more about the fish oil study in the sidebar on Page 5 and on supplements in general in this Q & A.

**Q.** To clear up any confusion, what is the definition of a nutritional or food supplement?

**A.** It's usually something  
*(continued on page 4)*

## When a Fear of Noise Becomes Phobic

*Start behavior modification now before Fourth of July fireworks and spring thunderstorms trigger anxiety*

**M**any owners can attest to their dogs' anxiety when they hear certain noises. Fireworks, thunder, vacuum cleaners and trains are common causes. Some owners even report frying bacon, skateboards, blenders and coffee bean grinders as triggers.

The fear can become so severe that it impacts both the dog's quality of life and the bond between owner and dog, says Pamela Perry, DVM, Ph.D., a resident in animal behavior at Cornell University College of Veterinary Medicine. "For example, dogs with thunderstorm phobia are often

destructive to their surroundings and possibly themselves."

**Common Problem.** Some dogs are so afraid of noises they develop a phobia about them — an extreme fear. Behavior modification can help, but it takes considerable time. If Fourth of July fireworks and spring thunderstorms are a problem for your dog, start working with him now. Otherwise, your efforts may be counter-productive if you begin during the height of the storm season or on the third of July, Dr. Perry says. "Fears

*(continued on page 6)*



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## SHORT TAKES

### A Rabies Vaccine on Mice Offers Promise of a Cure

Thanks to widespread vaccination against rabies in the U.S., the near-fatal viral disease in dogs is rare. Nevertheless, dogs and cats are at risk of bites from rabid raccoons, skunks, foxes and bats — more than 90 percent of all rabid animals reported to the Centers for Disease Control each year occur in wildlife. Infected dogs, cats and other animals can also transmit rabies to people. About 40,000 people annually receive treatment for potential exposure to the disease, the CDC says.

Researchers at the University of Georgia may have moved science a step forward in treating the disease. They tested a new vaccine on mice that cured rabies after the virus had spread to the brain, according to the *Journal of Virology*.

"Basically, the best way to deal with rabies right now is simple: Don't get rabies," says study co-author Biao He, Ph.D., professor of infectious diseases at UGA. "We have vaccines that can prevent the disease, and we use the same vaccine as a kind of treatment after a bite, but it only works if the virus hasn't progressed too far. Our team has developed a new vaccine that rescues mice much longer after infection than what was traditionally thought possible."

Researchers exposed mice to a strain of the rabies virus that generally reaches the brain in three days. By Day Six, they say the mice begin to show the "telltale physical symptoms that indicate the infection has become fatal."

However, 50 percent of mice treated with the vaccine were saved, even after the onset of physical symptoms. Researchers developed the vaccine by inserting a protein from the rabies virus into the parainfluenza virus 5, or PIV5. It's believed to contribute to upper respiratory infections in dogs but doesn't harm humans. PIV5 carries the rabies protein to the immune system to create the antibodies to fight off the virus.

"This is the most effective treatment we have seen reported in the scientific literature," Dr. He says, adding that he's confident he can improve results, translate them to humans and save animals' lives even when symptoms are severe.



SONY PICTURES

**Representatives from the American Humane Association's "No Animals Were Harmed" program monitored Wolfie during the filming of "The Interview," which also starred James Franco.**

### Safety Behind the Scenes

The American Humane Association celebrated the 75th anniversary of its "No Animals Were Harmed" certification program at its annual awards show called the PAWSCARS. The program protects animal actors' safety on movie and TV sets.

A Cavalier King Charles Spaniel named Wolfie, who appeared in "The Interview," was honored as the Best Puppy Under Pressure. The 2014 action-comedy movie about two journalists instructed to assassinate North Korean leader Kim Jong-un stirred considerable controversy, including condemnation from that country and cancellations from U.S. theater owners fearing retaliation.

At least one reviewer noted the cutest star in the movie was Wolfie, who was often in the center of action, monitored by AHA representatives who intervene on behalf of animal actors when necessary.

The spoiler alert on Wolfie's appearance: "The American Humane Association always made sure Wolfie was kept safe, especially in the midst of all the chaos ... He was never near any of the explosions, gunfire or loud noise — all that was added in post-production, or a stuffed double was used. In the boat scenes, Wolfie was always kept strapped in for safety, while in between takes, he was kept warm with a hot water bottle." ♦



# When Seniors Lose Bladder Control

*Causes of age-related urinary incontinence can range from blockages to infection and arthritis*

If your dog is more than 10 years of age, and you've noticed her arising from a nap with a moist underside or in a puddle of urine, she may have age-related urinary incontinence. Males are rarely affected, and weight plays a role in addition to sex. Dogs weighing more than 33 pounds are about seven times more likely than small dogs to be affected.

"Incontinence often results from urinary bladder or sphincter problems, but can also be related to anything obstructing urine outflow, such as an enlarged prostate, tumor or stone," says Leni K. Kaplan, DVM, MS, a lecturer in the Community Practice Service at Cornell University College of Veterinary Medicine. "The dog may then 'leak' if remaining in one place for a while."

**Nerve Problems.** Other physical disorders that can cause incontinence in

seniors include spinal cord or peripheral nerve problems, and arthritis of the back, hips or legs. The resulting pain from lifting the leg and maintaining the posture to eliminate can prevent the bladder from fully emptying.

Sometimes the cause is simpler. "Geriatric dogs sometimes sleep so deeply that they are not awakened by the urge to eliminate," Dr. Kaplan says. "Dogs who are truly incontinent aren't able to control when and where they 'leak.' By contrast, inappropriate urination is not typically done where dogs sleep but rather in places they want to use as a bathroom. The best way to tell is to observe your dog. If he or she is posturing to urinate intentionally, incontinence is not the issue."

Diagnosis begins with a thorough history and complete physical examination, with palpation of the urinary bladder. The veterinarian may do a



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**Geriatric dogs** can sometimes sleep so deeply they're not awakened by the urge to urinate.

complete blood count to check for systemic infection; a chemistry panel to determine if the kidneys and other organs are functioning normally; a urinalysis to check for bladder infection; and abdominal X-rays or ultrasound to check for stones or other diseases. If the dog shows neurologic impairment, with difficulty walking or defecating, additional tests may be warranted.

Left untreated, "Urine scald can result as the skin becomes tender and painful," Dr. Kaplan says. To protect irritated skin from urine scald, apply A+D Ointment or petroleum jelly to

*(continued on bottom of page 7)*

## A LAST RESORT: ARTIFICIAL URETHRAL SPHINCTERS

A new procedure using artificial urethral sphincters (AUS) successfully treated dogs with congenital and acquired urinary incontinence in a study by Ohio State University. Researchers reviewed 24 female and three male dogs' medical records and interviewed their owners about the effectiveness of AUS implantation.

Medication had been ineffective in treating almost all the dogs. After surgical implantation of AUS in the 27 dogs, 22 owners said they were very satisfied with the outcome, two were satisfied and three, unsatisfied.

Two dogs developed partial urethral obstruction, and researchers said in their report in *Veterinary Surgery* in January 2013 that dogs developing obstructions may require AUS removal.

AUS is used in human medicine to treat incontinence occurring when walking and exercising. It's also recommended for urine leakage after prostate surgery when other medical or surgical treatments do not work. In veterinary medicine, it's to be expected that new and unusual

procedures such as AUS implantation would be available only at some veterinary schools and large referral practices.

However, Norfolk Vet Products, makers of a port for the devices, reports a 50 to 60 percent increase in sales to private practitioners in the past two years, says Pamela Wolfson in sales and marketing. Where previously some veterinarians would have ordered a single AUS, "Some are now ordering three in different sizes at a time," Wolfson emphasizes.

The company emphasizes the treatment is for use when traditional therapies have been ineffective. Dr. Kaplan agrees: "It seems like this is a procedure that we embrace once medical management has failed. I would probably start with medications to see if the incontinence responds — this will help confirm that it is really is incontinence — and if an owner truly does not want to medicate, I could offer referral for the surgery. Any surgery has potential complications, including the risk of anesthesia, so I would personally advise against it unless it is our last resort for therapy."



**SUPPLEMENTS...** *(continued from cover)*

being used to either mitigate or prevent a disease process, and enhance the overall well-being of an animal.

**Q.** Do any government agencies regulate supplements for safety?

**A.** No, they are not regulated by either the FDA or feed control regulations, and for the manufacturer that's the beauty of a supplement. You can put anything you want on the market, and you don't have to do any efficacy testing. There are now industry-supported regulatory bodies out there that help ensure you are getting what the bottle says, but manufacturers don't put in as much of the ingredient as they probably should to have any true effects at preventing or treating a problem, just like human supplements. Concentrations in supplements are usually extremely low, so it's hard to get appropriate pharmacological concentrations in the typical over-the-counter supplement.

Let's say a tablet of triple concentration lycopene [an antioxidant that gives tomatoes and other fruits and vegetables their color] is 50 milligrams, depending on the manufacturer. A pharmacologic dose for a dog requires about 30 mg/per kilogram [2.2 pounds], so a 44-pound dog would need 12 tablets per day. Supplements often do not deliver a true pharmacologic dose.



Common supplements for dogs include those for support of the liver, kidney and joints.

The manufacturer Nutramax does a lot of testing for safety, and that's why its products are trusted by most veterinarians. The company has taken a lot of toxicologic and pharmacologic steps and has shown that it delivers the proper dose and in some cases have beneficial effects.

But be cautious about using supplements. Don't take your neighbor's word about them. Ask your dog's vet first before you give them to your pet. Although we have little evidence in dogs about harmful interactions of drugs, we assume that there are some supplements that can alter the metabolism of drugs that your dog may already be taking.

**Q.** Why don't most companies test supplements?

**A.** Before the Dietary Supplement Health and Education Act (DSHEA) was passed in 1984, dietary supplements — veterinary or human — were subject to the same regulatory requirements as other foods. The new law, DSHEA of 1994, says the supplement manufacturer is responsible for determining if a supplement is safe

and that any claims about them are backed up by enough evidence to show the claims aren't false or misleading. Under this law, supplements do not need to be approved by the FDA before they go on the market, nor do they have to give evidence of safety or effectiveness to the FDA unless it has a new ingredient, in which case safety data is required on the new ingredient, but not anything on its effectiveness.

A lot of money is required to show beneficial effect — the amount needed is mind numbing — and it's not a lucrative enough industry to do longevity studies. If you look at some of meta-analyses of glucosamine-chondroitin, it appears some studies say it helps maintain cartilage. The Catch-22 in veterinary medicine is that you won't see longevity studies. I've talked to some companies about doing safety and longevity studies to no avail. A really good study with enough patients is going to cost a minimum of \$100,000. Most companies look at the return on that, and they also wonder what happens if the study proves their product to be useless or harmful.

**Q.** The goal of the National Animal Supplement Council is to police the industry because there are no laws. Do you think it is effective?

**A.** I think the council is a good step in the right direction to get some

## A NUTRITIONIST'S TOP RECOMMENDATIONS



Glucosamine and chondroitin may have benefits to help maintain joint cartilage as dogs age.

Joseph Wakshlag, DVM, Ph.D., ACVN, ACVSMR, coming from his perspective as director of the Sports Medicine and Rehabilitation Service at Cornell, recommends these supplements as beneficial for dogs, especially as they age and need to maintain mobility and cognitive ability:

- ◆ Glucosamine and chondroitin to help maintain joint cartilage.
- ◆ Fish oil as a natural anti-inflammatory.
- ◆ S-Adenosyl methionine for liver compromise.

Some of the Nutramax products are highly recommended, such as Denamarin (S-Adenosylmethionine, or SAMEe), for liver support, as approved by your dog's veterinarian.



incentive on supplements and mildly police the situation. Their members are supplement manufacturers. Strict guidelines for labeling and marketing of dietary supplements for people were created with DSHEA. This law

watches the claims made by supplement manufacturers, and doesn't allow them to make claims that sound like their supplement is a drug that can cure or prevent a disease. DSHEA does not cover animal

supplements, however, which is why some manufacturers grouped together to form NASC. Basically, it's better than nothing.

### A PROMISING STUDY OF FISH OIL USED OBJECTIVE MEASUREMENTS

Promising research about supplementing with deep sea fish oil has proven to be significant on at least three counts. First, the study was scientifically sound — placebo-controlled and double-blinded, meaning the results were concealed from the testers or subjects' owners to eliminate bias. Second, the study was not sponsored by a company, again removing any bias. University of Helsinki researchers received government funds to see if fish oil worked as a pain reliever for dogs with osteoarthritis.

Finally, the study proved the supplement's efficacy by using quantitative evaluation methods, says Joseph Wakshlag, DVM, Ph.D., ACVN, at Cornell. Researchers used a force plate to measure the force dogs exerted to walk on it. The researchers say that their evaluation of 77 dogs suffering from osteoarthritis found that, when compared to a placebo, "The fish-oil treated patients improved significantly in many of the variables ... indicating a true but small relief in symptoms."

The dogs had improved in quality of life in locomotion and everyday situations, according to the report published in BMC Veterinary Research in 2012. Supplementation could be considered part of a total pain-relieving approach, especially for dogs who do not tolerate anti-inflammatory drugs, the researchers say.

In other tests:

**From Europe:** A placebo-controlled safety evaluation of vitamin A in growing dogs established a safe upper level for its use, one higher than previously believed. The 2012 study was conducted by the Waltham Centre in the U. K., the Free University of Berlin and the University of Potsdam, working with the European Pet Food Industry Federation.

Previously, guidelines varied on safe amounts of vitamin A that puppies can consume. The vitamin is essential for vision, growth and the immune system. Researchers gave four levels of vitamin A to 40 dogs between 8 and 16 weeks of age over two months. They found no difference in the health of the four test groups. "This finding highlights that puppies are able to metabolize higher levels of vitamin A than previously thought," Waltham says.

**From Tottori, Japan:** A study at the School of Veterinary Medicine at Tottori University, published in 2011, suggests that oral supplementation with d-glucosamine hydrochloride promotes cartilage regeneration in dogs and that additional research be done. The supplement is known to be useful in easing joint disease in other animals and humans.



Fish oil likely has some modest effects that can help dogs as they age.

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**Q.** What supplements are most commonly given to dogs?

**A.** It depends on the disease, but the top five are liver support, kidney support, joint support and then potentially anti-oxidants and anti-cancer. Those are the ones that get the most play.

**Q.** Can I presume that any supplement that works for people works for my dog?

**A.** Probably not. Part of it is that if we look at simple things like antibiotic dosing, dogs and cats usually require higher doses compared to people because their metabolism and elimination rates are often higher. Animals also metabolize medication more quickly. The antibiotics are the same, but they don't work the same in different species.

**Q.** Is the glucosamine you buy for people the same glucosamine for dogs? If it is, can you give dogs the human supplements?

**A.** There is not a lot of data to suggest that it's any different, so often when I have cost-conscious clients, I will send them to the human pharmacy. For an average large dog, doses are similar. You have to split pills for a Chihuahua.

**Q.** What is your take-away message for owners about giving supplements to their dog?

**A.** There are supplements like fish oil and glucosamine and chondroitin that likely have some modest effects that can help your dog as he ages, so they should be considered. As we learn more about supplements and toxicities in dogs, there will be more, safer and hopefully effective supplements that we will be able to use for a number of maladies, keeping our dogs happy and healthy longer into their twilight years. ♦



**NOISE...** (continued from the cover)

and phobias in dogs are among the most common behavior problems seen in veterinary referral practices."

The distinction between the two:

***Fear: It's a normal reaction to a threat***

It causes the fight or flight response, and can often help avoid dangerous situations. Learning and previous experience influence a dog's level of fear, Dr. Perry says. "They can have both physiological and behavioral responses to fear." Common signs include:

- ◆ Panting
- ◆ Pacing
- ◆ Whining
- ◆ Drooling
- ◆ Escaping or hiding
- ◆ Vocalization
- ◆ Destruction

Dogs will also express their fear in body language, holding the ears back and the tail down, licking their lips and yawning.

"If you're genetically programmed to be anxious, then you are more likely to develop fear or anxiety in response to certain sounds," Dr. Perry says. Some breeds are naturally more anxious, including Setters and herding dogs such as German Shepherd Dogs, Australian Shepherds, Border Collies, Cattle Dogs and Shetland Sheepdogs.

In general, dogs hear in a much greater range of frequencies than we do. The same fireworks we hear sounds louder and higher pitched to them.

"I have seen dogs who became fearful of the low-battery warning beep of a smoke detector and then generalized



HILTON HEAD ISLAND PACKET STAFF ILLUSTRATION

**With their ability to hear a greater range** of frequencies, dogs experience the sound of fireworks louder and at higher pitches than we do.

this fear to other similar, albeit innocuous, sounds," Dr. Perry says.

***Phobia: It's more persistent and excessive than fear***

If the fearful situation persists, over time the dog's responses may cross a threshold and become phobic. A phobia interferes with normal functioning. While it's normal for people and dogs to jump at the sound of thunder, it becomes phobic, Dr. Perry says, when the response becomes "profound, persistent and excessive." The first step in dealing with it: a veterinary visit to rule out any medical causes.

Phobias typically don't have a sudden onset but progress in degrees, Dr. Perry says. While she usually sees more dogs with both noise and storm phobias, some of the same dogs don't respond to other noises. Others may have a sudden onset, however, in the event of a disaster such as a tornado striking the house.

Phobias are often resistant to desensitization. However, physical aids, such as dog-appeasing pheromones; Thundershirts, which provide gentle pressure; and Thundercaps, see-through fabric that filters the dog's vision, may be calming.

Punishment is never appropriate because it may exacerbate the fear. On the other hand, you don't want to reinforce your dog's fearful behavior by comforting him. Dr. Perry's advice: Keep your

**START DESENSITIZATION WITH 'DOWN' AND 'SETTLE' CUES**

When done correctly, desensitization and counterconditioning can help ease a dog's fearful or phobic reaction to noise. The therapy needs to be individualized and may require professional help from a veterinarian specializing in behavior or a board-certified veterinary behaviorist. (See [www.avsonline.org](http://www.avsonline.org) and [www.dacvb.org](http://www.dacvb.org)).

Before starting behavior modification for noise phobia, you should reward-train your dog to lie down and settle on command in a predetermined, calm location or safe haven such as a small, quiet room or closet.

During desensitization, you expose the dog to the fear-eliciting sound but at a low enough volume so that he remains relaxed in his haven. In counterconditioning, you then pair high-value rewards with the sound.

Sounds that often trigger dogs' fear are available on CDs and other media. They include fireworks, thunderstorms, traffic, city sounds, crying babies, vacuum cleaners, washing machines, hairdryers, door knocking, doorbells and more.

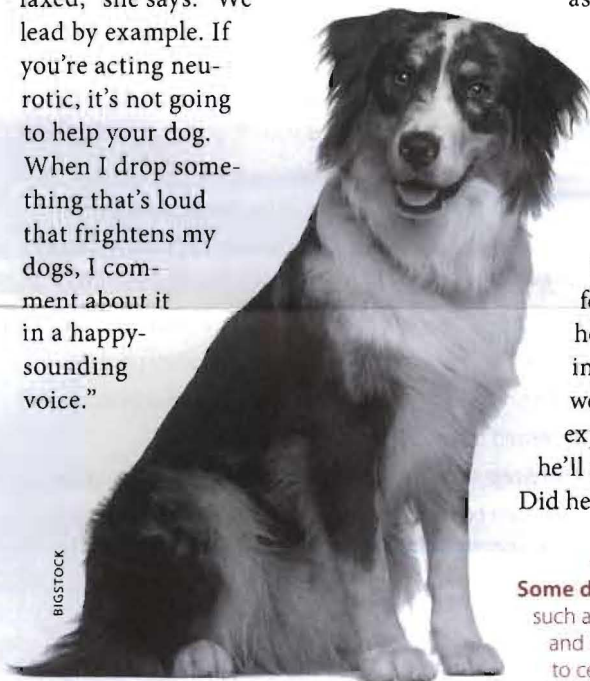
Over time, gradually increase the intensity or volume of the sound while you reward the dog for remaining calm in his safe place. In some cases, as in thunderstorm phobias, positive distractions, such as playing with a favorite toy or giving a high-valued treat like a marrow bone, may also create positive associations while redirecting the dog's attention away from the fearful stimulus.

Desensitization and counterconditioning should be used simultaneously to achieve the greatest benefit. Short, frequent sessions (10 minutes, twice daily) are preferable to longer but less frequent ones. Avoid soothing your dog during the sessions, which may reward his fear inadvertently.



reaction happy and light. With her own fearful Labrador Retrievers, she did a "jolly routine," reading aloud in a high, fairy-tale voice.

"It's important for the owner to stay calm, happy and relaxed," she says. "We lead by example. If you're acting neurotic, it's not going to help your dog. When I drop something that's loud that frightens my dogs, I comment about it in a happy-sounding voice."



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Dogs excel at reading our body language. If we panic at their responses, that feeds into their fear, making it harder for them to calm down. If your dog wants to hide during loud noises, give him a place that's quiet, dark and as sound-proof as possible.

Don't crate him unless he's used to crating and comfortable with it. Otherwise, he'll feel trapped, intensifying his fear. The goal is for him to feel safe.

You may have to play detective to determine the reason for your dog's noise phobia. Was he socialized as a puppy during the critical time of 3 to 14 weeks? Did he have the chance to explore new environments so that he'll adapt better to new stresses? Did he meet other dogs, children and

**Some dogs, including herding breeds** such as Border Collies, are naturally anxious and likely to become fearful in response to certain sounds.

adults? An unsocialized puppy is more likely to be fearful of new situations and people as an adult, Dr. Perry says.

Many dogs are adopted after the socialization period has ended, but they can still learn to adapt, although it may be somewhat harder for them and their owners. Some dogs are less anxious if they have a canine or feline companion. If the companion leaves, however, their anxiety can return.

Treatment of noise phobias includes avoiding or minimizing exposure to sounds that elicit fear and the use of counterconditioning and desensitization to teach the dog to remain relaxed in the presence of the fearful stimuli.

Some dogs require anti-anxiety medication, especially if avoiding the fear-inducing noise is not possible, for example, as with thunderstorm phobias. The medications can help reduce fear and anxiety and enhance learning. Although some dogs require long-term use of medication, others only need them during the first few months of treatment. ♦

## HEALTH

### BLADDER... (continued from page 3)

the area as a barrier to leaking urine. Avoid topicals containing zinc, which is toxic to pets. Doggy diapers protect topical barriers from being licked off and can help manage leakage. Doggy sheets and special bedding help wick away urine and keep the dog dry overnight.

**Infection's Effect.** "Dogs with incontinence due to poor sphincter control are also more prone to urinary tract infections, since bacteria are able to more easily ascend into the urinary tract," Dr. Kaplan says. "Twice-yearly urinalysis can ensure that any brewing medical problems are caught early on."

Oral medications can help dogs with urinary sphincter and bladder muscle control problems. If arthritis pain is a factor, pain management

can help. Medications may include gabapentin, Adequan (chondroprotectant) injections; non-steroidal anti-inflammatory drugs and opioids such as tramadol. Finally, "Acupuncture can be a good treatment modality for incontinence caused by spinal cord or lumbosacral [lower spine] disease," Dr. Kaplan says.

She suggests that if medications are not effective or until they take effect, owners can learn how to massage and gently empty the urinary bladder on a schedule, rather than having the distressed bladder leak urine.

Older dogs who are prone to incontinence may benefit from easy access to outdoor elimination areas and extra bathroom breaks to keep their urinary bladders small, empty and less likely to leak. In addition, "The more these dogs get up and move around, the less

stiff they will be, which helps with arthritis," Dr. Kaplan says.

Studies show that incontinence can be controlled in 60 to 90 percent of female dogs with medication. Less than 50 percent of male dogs respond to medical therapy. "The reasons could be that the medications we use for urinary incontinence are usually for sphincter problems, and males likely do not develop sphincter problems as commonly as females," Dr. Kaplan says. "Other male dogs may have hormone responsive incontinence and need testosterone in addition to typical medications for a response to be noted."

However, a simple remedy helped one male patient Dr. Kaplan had: "The owners fitted him with a diaper put on backward, which stayed on better, and did a great job absorbing urine. His underside was always clean." ♦





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

**Please Share Your Questions**  
We welcome questions of general interest on health, medicine and behavior. We regret however, that we cannot comment on specific products and prior diagnoses. Please send correspondence to:

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## House Training Two Young Shih Tzu in Five Easy Steps

**Q** We have two Shih Tzu females from the same litter, now 1 year old. Despite our best efforts, they are not completely house trained. Sometimes even after a long walk, they will enter the house and defecate or urinate. They will also take their waste into their beds or eat it.

Do we keep persevering with them, or is there something we should be doing? Rewards have been tried, and while their food is available during the day, we take it from them overnight. Your suggestions will be gratefully appreciated.

**A** It is great to have two dogs, especially two as cute as Shih Tzus, but in my experience, it is more than twice as hard to house train two puppies than one. Here is a five-step plan to solve the problem.

**Step 1 — Meals:** The first thing is to control your dogs' input so you can control their output. Do not leave their food out all day. Normally, there is nothing wrong with that except that it is a risk factor for obesity. For example, I dare not leave a bowl of SunChips on my counter, or there will be a lot more of me.

Your problem is different. You need the dogs to eat a fairly large meal to encourage defecation. Food in the stomach triggers the gastrocolic reflex, which means that something in the first part of the gastrointestinal tract triggers an increased activity in the last part. The speed of that reflex varies from dog to dog but is usually 20 minutes or so; therefore, 20 minutes after they eat, your dogs should be taken out.

You should transition the dogs from free-choice food by withholding food overnight, as you already are, and then at breakfast, let them eat for 15 minutes, remove the dishes and go for an elimination walk. In the evening do the same. It may take the dogs a few days to realize they cannot graze but eat a meal instead.

**Step 2 — Substrate:** Observe where the dogs do eliminate. Dogs usually do not urinate and defecate

in the same place or even on the same type of surface. They are less finicky about places to urinate but have definite preferences. The problem is that you may not have been giving them the opportunity to defecate where they feel most comfortable. Most dogs seem to like a bare surface like the middle of a dirt road rather than in long grass. Many little dogs like yours do not like to squat in the snow. It is obvious their second choice is your floor, but you should try to find their first choice.

**Step 3 — Diary.** Write down the time each dog urinates or defecates inside or out. That will help you determine how often they should be taken outside. Once they begin eating meals rather than free-choice food, they should become more regular in habits. They will tend to drink after they eat, so urination should also be more predictable.

**Step 4 — "Umbilical cord" training.** The dogs should be leashed to you when they are awake and outside their crates. This serves two purposes. First, they will not be ruining your rugs or floor because they are unlikely to eliminate close to the place they lie. Dogs are actually pretty clean; notice how they often jump or rush away from their feces. Second, you will learn the behavior that indicates that they have a full bladder or rectum. If you see that they are restless and panting, they may have full bladders, and if they are circling, they may have a full rectum. In either case, take them outside immediately.

**Step 5 — Rewards.** You mentioned you had tried food treats, which is great, but the value depends on when you gave them. Many owners treat dogs for returning to the house. Even if your dogs have defecated, they will associate the reward with coming back to the house — not with eliminating. That is why it is necessary for you to be with them. Some dogs are shy and will go into the bushes to defecate, but you can say "Good potty" as they eliminate and give them treats when they reappear.

Taken together, these steps can help your dogs become successfully house trained. Best of luck! ♦

### COMING UP ...

ANEMIA



MAMMARY  
GLAND TUMORS



DOOR DARTERS



REHABILITATION

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