



# DOG Watch

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

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## INSIDE

<b>Short Takes</b>	<b>2</b>
A warning against raw meat diets; burials at sea; MRIs while awake.	
<b>The Perils of Cold, Wet Weather</b>	<b>3</b>
When temperatures drop, the risk of hypothermia rises for certain dogs.	
<b>There're no Worms in Ringworm</b>	<b>4</b>
The easily transmitted fungus is spread through contaminated soil.	
<b>Ask the Experts</b>	<b>8</b>
Except in the case of allergies, grain-free food offers no advantage.	

## IN THE NEWS ...

### Testing cranberry extract for urinary tract infections

Health enthusiasts often laud the benefits of cranberry juice. They say it prevents urinary tract infections, reduces bad cholesterol and even removes harmful bacteria from teeth. Now, the Morris Animal Foundation is funding the first clinical veterinary study on cranberry extract's effect on pets.

Antibiotics are the usual treatment for UTIs, but dogs with chronic infections develop a resistance to them. Neurologist Natasha Olby, Vet MB, Ph.D., at North Carolina State University, will investigate cranberry extract's ability to reduce the prevalence of UTIs in dogs with acute spinal cord injuries.

The injuries cause paralysis of the hind legs, making it difficult for dogs to empty their bladders. "There is evidence that cranberry extract can inhibit the development of urinary tract infections by reducing the ability of certain bacteria to stick to the bladder wall," the foundation says. The three-year clinical trial will involve 150 animals. ♦

## Be Wary of Low-protein, High-fat Diets

*Along with rich holiday treats like gravy, they can cause pancreatitis — and a trip to the ER*

Ute Schwab of Ithaca, N.Y., came home to find Mouse, her 15-year-old Chihuahua, lying motionless in his bed. "When I touched his abdomen, he yelped," she says. He was stiff and tense. Schwab knew something was very wrong when he refused his favorite treats. She called the Cornell University Hospital for Animals, and Mouse was admitted that evening.

An abdominal ultrasound identified an enlarged pancreas. Along with clinical signs — high temperature, vomiting, abdominal pain



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and health issues, including Addison's disease — the imaging indicated that Mouse had acute, or sudden, pancreatitis.

**A Serious Disease.** Because the pancreas plays a vital role in producing hormones and digestive enzymes, its inflammation can be a serious disease. "Experimental evidence indicates that low-protein, high-fat diets can induce canine pancreatitis," says Andrea N. Johnston, DVM, DACVIM,

*(continued on page 6)*

## The Easy Way to Stop Begging for Food

*Stop giving it! But be prepared for pleading eyes, sharp barks and training to keep him away from the table*

Dogs who beg for food have learned a simple lesson: Their barking, whining or pawing results in a reward. That training is often unintentional, however.

"You're teaching a dog to 'speak' or 'beg' if every time he comes to the breakfast table, he gets a piece of toast as a reward, only you may not realize it," says Katherine A. Houpt, VMD, Ph.D., former president of the American College of Veterinary Behaviorists and emeritus James Law Professor of Animal Behavior at Cornell University College of Veterinary Medicine. "Dogs are very food motivated, so they learn when a behavior works to get a treat."

Even when you purposely train dogs to sit, stand and beg, those cute tricks can lead to undesired begging behaviors when you give repeated tidbits from the dinner table.

"The moral is: Be careful what you teach your dog," says Dr. Houpt. "Ideally, it's OK to teach him to sit or bark on verbal command, but only if he does it when you want him to."

**Try Ignoring Him.** It's easy to stop a dog from begging: Stop giving out food. "The best thing to do is to ignore the dog, but few owners can do that. Not many people have the heart or patience," she says. Once the dog learns his behavior is rewarded, it can take weeks to retrain him. If you give in to the dog after he has barked five times, he may bark 10 times at the next meal before he gives up.

In her book "Domestic Animal Behavior," published by Wiley Blackwell, Dr. Houpt says that dogs respond to various types of reinforcement schedules and are trained quickest and

*(continued on page 5)*

## The Perils of Cold, Wet Weather

*As temperatures drop, the risk of hypothermia rises, especially for pups, seniors and the ill*

Walking and playing with your dog in winter can be joyful, but cold, wet and windy weather can gang up on him. If your dog gets too cold, he may suffer hypothermia — overly low body temperature. It can happen even when the weather isn't Arctic. A short dip in degrees won't cause serious damage, but a long drop can be as fatal as being cooped up in a car under the summer sun.

Hypothermia causes the dog's central nervous system to slow down. Heart rate, blood pressure and blood flow decline, as do breathing and immune system activity. The slower flow of oxygen-carrying blood can depress metabolic functioning and damage internal organs. The muscles may stiffen, pupils may dilate and alert-

### CAVEATS ABOUT THE COLD

Want to make sure your dog doesn't get overly — possibly dangerously — cold? Do for him what you might do for yourself:

- ◆ Carefully consider whether to go out in the wet and cold especially if your dog is sick or aging. Both conditions can interfere with the body's ability to regulate its temperature.
- ◆ Keep active. Expenditure of energy generates body heat.
- ◆ Avoid getting your dog wet. Wetness steals body heat, even when it's not cold outdoors. With wind, it's worse.
- ◆ If your dog goes out in the yard, keep an eye on him and give him access to a warm, dry shelter.
- ◆ If your dog is outside and shivering, he's too cold. Get him indoors.

ness may turn into stupor. Although Northern breeds withstand the cold better than others, any severely chilled dog can fall into a coma and die.

**Dogs at Risk.** No data is available on the incidence of hypothermia, says Gretchen Schoeffler, DVM, DACVECC, Chief of Emergency and Critical Care services at Cornell University Hospital for Animals. However, puppies, senior dogs and debilitated and potentially hypothyroid dogs are more susceptible than others because it's harder for them to regulate their body temperature. Extra care is needed.

"While some dogs' normal temperature may be slightly below the normal range of 100 to 102 degrees Fahrenheit, any dog whose temperature is below 100 degrees and is acting at all sick should be assessed by a veterinarian," Dr. Schoeffler says.

There are variations. "If they've been outside in cold rain, for example, and their temperature is 98 degrees but they are acting normal, it's probably OK to simply dry them off with a warm towel and continue to monitor," she says.

Shivering is typical of mild hypothermia. Warm a shivering dog by bringing him indoors and quieting him, drying him with a towel and then wrapping him in blankets until he recovers. You can even hug him to share your body heat.

**When to See the Vet.** If the dog is very cold — moderate hypothermia, a drop of 10 to 15 degrees — he won't be able to shiver and may seem dizzy. He'll need help from a heating pad wrapped around the torso; the pad should be warm, not hot, with a layer of fabric placed between the pad and the dog's skin.

A severely hypothermic dog, with a temperature less than 82 degrees, may



Nordic breeds like Samoyeds generally withstand the cold better than others, but any severely chilled dog can fall into a coma.

be unconscious and needs a veterinarian's help — fast — to help him regain consciousness and breathe normally. This can include warm-water enemas and internal stomach washes, warm intravenous fluids and warm air.

Prompt treatment can lead to complete recovery, Dr. Schoeffler says.

The veterinarian may want to make sure that the dog's hypothermia wasn't caused by an underlying medical condition. Diagnosis is made first by taking the dog's temperature. The veterinarian will listen to his breathing and heart-beat, and may measure the heart's activity with an electrocardiogram. To make sure the reason for your dog's trouble is solely hypothermia, urine and blood tests may be done to check for metabolic causes, low blood sugar and other causes with similar symptoms.

Now that you know how dogs get cold, you can prevent hypothermia by avoiding wet, cold conditions. Add protection with cold-weather gear, such as neoprene vests, dog sweaters and booties. There are no studies documenting how much warmer the well-dressed dog stays, "but of course there is no reason to think a dog would be any different from a person," Dr. Schoeffler said. Just be sure not overdo it with so many clothes that your dog overheats and take warm mittens for yourself, too. ❖

## RIDDING THE HOME OF FUNGAL SPORES

The hardy fungus that causes ringworm is difficult to eradicate. Its spores can live in the environment for months, according to the ASPCA. To prevent the spread to humans and other animals, its experts suggest:

- ◆ Disinfecting or even discarding the infected animal's bedding, equipment and toys. One of the most effective disinfectants to use is one part bleach diluted with 10 parts water.
- ◆ Frequent vacuuming can help prevent transmission of the infection but with this caution: Don't forget to change the vacuum bag.
- ◆ Practice common sense and thoroughly wash your hands after you bathe or touch your dog.
- ◆ Because immunocompromised individuals and those with pre-existing skin conditions can be especially vulnerable to ringworm infection, they may want to consider avoiding handling an infected dog.

The signs of ringworm in humans include itchy, red, raised and scaly patches that may blister and ooze. The patches tend to have sharply defined edges, and, the National Institutes of Health says, the patches are often redder around the outside and resemble a ring.

## RINGWORM... (from page 4)

or ointment for visible scabby areas. If new spots appear, then an inexpensive oral medication, often ketoconazole, will be added. The shortest course of treatment takes 45 days but many cases take considerably longer.

By contrast, an extraordinarily rare ringworm that affects animals with immune deficiency can develop under the skin and be fatal.

**Best bet:** Whenever a dog develops bald spots or has hair falling out, it's always a wise to consult his veterinarian. ❖

## BEGGING... (from cover)

most enduringly when rewarded at changing intervals. Then frequency of the reward and its desirability — whether food, praise or play — all influence his training.

For example, once a dog has learned a command, if he is given a treat after he does a certain behavior 10 times, he'll learn more quickly than dogs who are rewarded after every single response. And for better or worse, your dog will remember and continue his newly learned behavior for a longer time after the rewards end.

When a dog barks while people are eating, Dr. Houpt says, "They may have given him food once or twice when he barked until they became annoyed at the behavior. The dog continues to bark while the owners try to ignore it. Finally, they relent, thereby teaching the dog that a reward comes after a longer interval of barking. Unfortunately, that interval usually keeps increasing."

**Hundreds of Barks.** In laboratory studies, dogs have been conditioned to bark 33 times for every small food reward. In household situations, "The

Once a dog learns his begging behavior is rewarded, it can take weeks to retrain him.



problem dog at the dinner table may continue to bark hundreds of times even though his owners do not give any more food," Dr. Houpt says.

Dogs are naturally attracted to good-smelling food. "They go to the table or kitchen because that is the place where good things happen," she says. "Mine will lie under the table quietly and choose which person is most likely to drop something good." If food falls on the floor "that teaches the dog to be near the table, if not to exactly beg."

Common begging behaviors include looking sad or pleading, whimpering and barking. "Dogs make eye contact, but their facial muscles are relaxed," she says. "When begging for food, a dog may drool or even cry. Owners know that pitiful look."

If you find begging annoying, train your dog to stay away from the table. That's easiest with puppies and young dogs, however. "They can be trained to sit at the edge of the room," Dr. Houpt says. "They still look pitiful, but at least they're farther away." ❖

## WHEN IGNORING HIM DOESN'T WORK

If ignoring your begging dog is impossible, try these tips to prevent his behavior:

- ◆ Feed him before you eat.
- ◆ Re-direct his attention to a favorite toy or a puzzle toy that rewards him for his effort.
- ◆ Provide a food-based or food-dispensing distraction to slow his eating and help satiate hunger. "If he's really annoying, give him a quarter of his daily kibble in a food-dispensing toy, or hide the kibble so he has to work to find it," advises animal behaviorist Dr. Katherine Houpt. She also suggests freezing kibble in broth or making a frozen popcorn cheese ball. "Use delaying tactics so he eats the same amount of food but it takes him longer," she says, especially if he's overweight.
- ◆ Put your dog in a crate or another room.

**A mild case of pancreatitis might call for IV fluids,** drugs to control nausea and vomiting, and pain medicine.

diet might be administered via a feeding tube in continuous small amounts until solid food can be kept down. At that time, a diet low in fats and high in carbohydrates — such as pasta, rice or a [therapeutic] diet available through your veterinarian — might be recommended, particularly if blood tests show high serum triglyceride levels.” Should a mild case worsen to the point it turns septic or provokes a systemic inflammatory response, Dr. Johnston says, pancreatitis can prove fatal.

To avoid pancreatitis in your dog, especially if he’s predisposed to it, Dr. Johnston has this simple advice: “Feed a relatively low-fat diet. Don’t let your dog get into the garbage and no McDonald’s hamburgers!”

Fortunately, Mouse made a complete recovery, Ute Schwab says. “It was amazing to see him go from being so sick to so well within a week.” His two-



day hospital stay at Cornell included IV fluids, medications and a plasma transfusion, followed by a course of antibiotics and anti-nausea medication that he received at home.

He’s now on a low-fat therapy diet, and Schwab follows Dr. Johnston’s advice diligently: “I don’t feed him treats or table scraps, and I always keep him on his leash outside so he can’t eat anything harmful.” ♦

## STUDIES SUGGEST THE DISEASE IS UNDER-DIAGNOSED

While the incidence of pancreatitis in dogs and cats is unknown, recent studies would suggest that pancreatitis is a rather common and under-diagnosed condition in both dogs and cats, according to the Gastrointestinal Laboratory at Texas A&M University.

Joerg Steiner, MedVet, DrMedVet, Ph.D., director of the laboratory, developed the original cPLI test to diagnose pancreatitis. “My mentor David Williams and I were actually trying to develop a new test for gastritis,” he says. “Good science often involves a little luck!”

The most significant implication of the test: “Chronic canine pancreatitis is far more common than we had previously believed,” Dr. Steiner says. “We now know that many, many dogs live with chronic pancreatitis and don’t necessarily show any clinical signs.”

However, if veterinarians find risk factors, such dogs can receive preventive treatment. For example, “Owners may consider putting dogs at risk on an ultra low-fat diet with an appropriate caloric content,” Dr. Steiner says.

The proactive approach can help prevent three significant developments: episodes of acute pancreatitis, exocrine pancreatic insufficiency (the inability to prop-

erly digest food due to a lack of digestive enzymes made by the pancreas) and diabetes mellitus, which is linked to chronic pancreatitis.

The cPLI test, which detects lipase that leaks from the pancreas during pancreatitis, works especially well in dogs with more severe forms of the disease. “Dogs with no pancreatic function would, in effect, have zero cPLI levels,” Dr. Steiner says.

Many organs, including the stomach, liver and pancreas, produce the enzyme lipase. “What we found was that by taking and purifying the lipase derived specifically from the pancreas, we could create an assay more sensitive to picking up pancreatitis in blood samples,” Dr. Steiner says. “We discovered that lipase derived from any other organ — for example gastric lipase — doesn’t work nearly as well for the diagnosis of pancreatitis as pancreatic lipase. Neither does a combination of lipases from a variety of organs.”

Many diseases don’t have good diagnostic tests, Dr. Steiner says. “We’re fortunate to have this one for pancreatitis.”