



Cornell University  
College of Veterinary Medicine



# DOG Watch

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

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## IN THE NEWS ...

### Canine Lymphoma Study Also Benefits Human Research

An international team of researchers has discovered molecular subtypes of lymphoma from three dog breeds most prone to the disease by comparing them to the same cancer in humans.

Working with DNA from tumors in pet Golden Retrievers, Cocker Spaniels and Boxers, the scientists identified genes with known involvement in human lymphoma and other cancers as well as "novel genes" that could result in new treatments, says Jessica Alfoldi, Ph.D., at the Broad Institute of MIT and Harvard. Dr. Alfoldi was senior author of the study, published in the journal *Genome Research*.

Evidence continues to show genetic similarities between human and canine cancer. "Naturally occurring cancers in dogs, who so closely share our homes and lives, are proving to be invaluable targets of study that will advance our understanding of cancer in both species," says Diane Brown, DVM, Ph.D., chief scientific officer at the AKC Canine Health Foundation, which helped fund the study. ♦

## The Cause of Bloat Remains Elusive

*We do know the risks — raised food bowls — and signs such as an extended abdomen requiring immediate intervention*

Dogs may seem to have GI tracts made of steel, but in fact, after cancer, the second most common cause of death in many large- and giant-breed dogs is a stomach condition. Gastric dilatation volvulus (GDV), colloquially known as bloat, is a deadly disease in which a dog's stomach fills with air and flips, causing decreased blood flow and damage to the stomach. This leads to the rupture of the stomach, shock and death if emergency care is not initiated quickly.

"Large- or giant-breed dogs are the most commonly affected, and there is an increased



Large, deep-chested breeds like Great Danes have a greater incidence of bloat.

incidence in deep-chested large dogs like Great Danes," says surgical specialist James A. Flanders, DVM, ACVS, associate professor at Cornell University College of Veterinary Medicine. "This is probably due to their anatomy, because in these dogs there is a sharp angle between the esophagus and the stomach."

### Big Meals a Factor.

When a dog experiences bloat, his stomach is likely filled with food after a large meal. His unique anatomy can become difficult for him to burp up any gas. The gas is typically from air swallowed while

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## Can Treats Make Them Pack on Pounds?

*Know the calorie counts of products to keep from exceeding 20 or even 10 percent of the daily diet*

If you've ever slipped a fast-food French fry to your dog, you're not alone. More than a third of dog owners go to the drive-through with their pets in the car, and 80 percent admit to ordering a snack for them, according to a survey of 1,500 U.S. online consumers by the marketing research firm Revelation Research.

It's almost a mantra in any discussion of pet obesity and healthy eating: We should limit treats to no more than 20 percent of our dogs' daily diet. Some nutritionists even advise lowering the limit to 10 percent. But

how do we determine the calories in our dog's gobbled burger or favorite treat? Perhaps the manufacturer doesn't list calories on its packaging.

**Reaching the Limit.** The result can be that, if we give our dog a handful of treats, he can quickly reach that 20 percent calorie limit. Here's how: A typical adult dog who weighs 30 pounds needs only 500 to 1,000 calories a day, says nutritionist Joseph Wakshlag, DVM, Ph.D., at Cornell University College of Veterinary Medicine.

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## SHORT TAKES

### In Prehistoric Competition for Food, Cats Prevailed

An international team of scientists, analyzing more than 2,000 fossils, has made a surprising discovery, one they describe as “contrary to current expectation.” More than the effect of physical size and climate change, they found evidence indicating that early members of the cat family, arriving in North America from Asia, contributed to the extinction of 40 ancient species of dogs.

One reason was the carnivorous animals’ rivalry for prey as food in the same areas, the researchers say, adding that another could simply be that the cats were more efficient predators than most of the extinct species in the dog family. The results of the study show that competition for food “can actively drive the displacement and extinction of entire lineages,” says their report in the Proceedings of the National Academy of Sciences. The website PNAS.org provides details, including other carnivorous species present in North America, such as bears and bear dogs.



Dr. Daniele Silvestro, University of Gothenburg

**A fossil from an ancient dog of unknown origin has an extended jaw, which evolutionary biologists say was an advantage in bringing down and breaking the bones of prey.**

Researchers included scientists from Gothenburg, Sweden; São Paulo, Brazil; and Lausanne, Switzerland. “We usually expect climate changes to play an overwhelming role in the evolution of biodiversity. Instead, competition among different carnivore species proved to be even more important for canids,” says leading author Daniele Silvestro, Ph.D., at the Department of Biological and Environmental Sciences at the University of Gothenburg.

The dog family originated in North America about 40 million years ago and reached

maximum diversity around 22 million years ago, when more than 30 species inhabited the continent, the university says. “Today, only nine species of the dog family live in North America.”

### Night Blindness Discovery

Researchers at the University of Pennsylvania School of Veterinary Medicine, working with Japanese scientists, have uncovered a form of congenital stationary night blindness (CSNB) in dogs. The next step — identifying the genetic mutation causing the condition — could lead to gene therapy to correct it in both people and dogs.

People with the disorder find it difficult or impossible to distinguish objects in low light. Affected dogs can walk around in bright light and navigate easily, “but in darkness they sort of freeze,” says Gustavo Aguirre, professor of medical genetics and ophthalmology at Penn. “It’s really very dramatic.”

The Penn team collaborated with Mineo Kondo, professor and chair of ophthalmology at Mie University Graduate School of Medicine in Tsu, Japan, who told them of a group of Beagles with night-vision problems. Dr. Kondo’s team confirmed CSNB in the Beagles using electroretinography to measure retinal function. A flash of light detects signals coming from photoreceptors and other cells in the retina. The Japanese scientists evaluated the dogs’ pedigrees and determined CSNB is autosomal recessive, meaning two copies of the mutated gene were needed for a dog to develop the disease.

All the affected Beagles showed signs characteristic of the disease, specifically Schubert-Bornschein complete CSNB, also seen in humans. In this condition, there is a malfunction in which signals are transmitted between the retina and certain cells within it.

The researchers believe a genome-wide approach will help in their search for the gene responsible for CSNB. If successful, they can begin development of a gene therapy treatment that will also have human applications. ♦



# Don't Mistake These Bumps for Acne

*A common condition called folliculitis sounds benign but can develop into painful lesions and hair loss*

Those athletic dives your dog makes for a Frisbee are impressive, but if he collides with the turf the wrong way, the meeting of ground and fur could lead to friction that may require eventual treatment. Rubbing his chin against the carpet while chewing a rawhide can have the same result.

The reason: "The hair shaft acts like a splinter, pushing deep into the skin. It results in an inflamed and draining papule," says dermatologist William H. Miller, VMD, Medical Director of the Cornell University Companion Animal Hospital. "A secondary bacterial infection is common."

Papules are small, solid bumps — the human equivalent of pimples. They often lead owners to suspect their dog has acne, but the relatively common condition is called folliculitis. Papules can occur anywhere on a dog, but in short-coated active dogs they usually appear on the chin.



Certain breeds, such as Doberman Pinschers, are more susceptible to folliculitis occurring on the chin.

**Human Cases.** In humans, severe cases of inflamed hair follicles can cause permanent hair loss, non-healing crusty sores and scarring, the Mayo Clinic says, adding that, "It can be itchy, sore and embarrassing."

In addition to bacteria, fungal infections are another cause of folliculitis in dogs. Systemic diseases can also play a role by weakening the skin. They include disorders of the immune and the endocrine system, such as hypothyroidism and Cushing's disease,

in which the body excessively produces the hormone cortisol.

The condition may sound relatively benign in dogs, but papules can develop into painful lesions, hair loss or worse — a life-threatening staphylococcus infection. Lesions can be deep and, if not treated, can heal with scarring. If, for example, multiple follicles in the same area are affected, the entire chin can scar and become vulnerable to further damage.

It's not difficult to find papules on your dog. In hairy areas of the body you can feel them better than you can see them. When you see them, they may look like red dots. "Some people never look at the dog's chin until they see little bloody spots on the floor or furniture," Dr. Miller says.

Certain breeds are more susceptible to the chin lesions.

"It's almost exclusively in short-coat dogs like the Doberman Pinschers," Dr. Miller says. Boxers, Bulldogs and Rottweilers can also be affected.

Veterinarians may order diagnostic tests to rule out underlying conditions, such as yeast infections and ringworm. Cytology, an examination of tissue samples, is necessary to determine if the hair follicles are infected. "The critical part of the treat-

ment is to stop the behavior that triggered the process — stop playing ball, take away the rawhide, or whatever activity causes the dog to rub his chin on the ground repeatedly," Dr. Miller says.

With only a few lesions, the condition might resolve on its own if the chin rubbing stops. It usually takes two



William H. Miller, VMD, Cornell

Solid bumps called papules can develop anywhere on a dog, but in active, short-coated dogs usually appear on the chin.

to three weeks for the papules to disappear. In more serious cases, the veterinarian may prescribe:

- ◆ Twice weekly cleaning with a shampoo containing benzoyl peroxide to open the follicle and kill bacteria
- ◆ A benzoyl peroxide gel applied topically
- ◆ Antibiotics to limit infection
- ◆ Steroids applied topically to decrease swelling and inflammation
- ◆ An antifungal agent if a fungal infection is detected

The cost of diagnosing and treating folliculitis is typically less than \$100, and usually no more than \$200. Complicated cases involving underlying diseases can raise the cost to \$500 or more. ♦

## SIGNS THAT ARE EASY TO SPOT

The abnormalities that folliculitis can cause are most visible on shorthaired dogs, who are also most affected by the condition:

- ◆ Red bumps on the skin
- ◆ Darkening of the skin
- ◆ Scars from healed lesions
- ◆ Pus from bacterial invasion
- ◆ Swelling
- ◆ Hair loss
- ◆ Itching



## BLOAT... (continued from cover)

eating, and dogs who gulp their food tend to swallow more air than normal. "This problem is compounded if dogs are chronically fed large meals," Dr. Flanders says. "Their stomachs stretch and the supporting ligaments of the stomach lose tone, making a floppy stomach that is even more prone to closing off and preventing the release of gas from the stomach. A stomach that is bloated with a combination of food and gas is much more likely to twist and produce GDV. The twist of the stomach maintains the distension, shuts off the blood supply to the stomach, sends the dog into shock and causes the stomach to rupture."

While veterinary experts know how GDV occurs, its cause is more of a mystery. Larry Glickman, VMD, DrPH, is professor emeritus at Purdue University College of Veterinary Medicine, adjunct professor at the University of North Carolina School of Medicine and Chief Science Officer at OneEPI in Pittsboro, N.C. He's led many studies on GDV in dogs and says the mechanism by which GDV develops is not clearly understood.

**Little Research.** "We do not know for certain all of the genetic and

environmental factors that precipitate GDV," Dr. Glickman says, though breed predisposition points to the possibility of a genetic component. "No good experimental non-canine animal model has yet been established to study GDV. Our knowledge has been derived primarily from epidemiologic studies of pet dogs with naturally occurring spontaneous disease."

Several studies have given veterinarians insight into risk factors, which include both dietary and non-dietary elements. Dr. Flanders notes that the incidence of the disease is higher in first-degree relatives of dogs who have had GDV.

It used to be widely believed that owners could prevent bloat by elevating their dog's food bowls. Dr. Glickman calls that the No. 1 myth about GDV. "There is a belief among many breeders and dog owners that elevating a dog's food will decrease its risk of developing GDV, particularly if it is one of the



It's a myth that raised food bowls prevent gastric dilatation volvulus. In fact, a study found the risk significantly increased.

large and giant breeds that are more likely to develop it," he says. "However, a large epidemiological study demonstrated that elevating a dog's food bowl does not decrease the likelihood that he will develop GDV over time. In fact, the risk of a dog developing GDV was found to be significantly increased in this study if its food bowl was

raised by the owner, when compared with similar breed dogs who were eating from non-raised food bowls."

The most impactful studies have highlighted the importance of treatment, solidifying the notion that immediate emergency care will save a dog's life. "Dogs who are treated by a veterinarian within six hours of onset have a much better survival rate than dogs who receive veterinary care after six hours," Dr. Flanders says.

This is good news if owners pay close attention to their large-breed canines after a meal. Primary signs of GDV are easy to recognize. "Dogs with GDV have a very distended abdomen and non-productive retching — the dry heaves," Dr. Flanders says. "Not all owners notice the distended abdomen — it can become as taut as drum — but the multiple attempts to vomit or gag without production of any vomitus should make owners very suspicious of GDV."

That's what happened to one of Dr. Flanders' patients who was saved by the family's 6-year-old son. The middle-aged Newfoundland began showing signs of GDV in the night. His stomach became distended shortly after midnight and he started retching, Dr. Flanders says. "This is a very common time for dogs to develop signs of GDV. It may be that they often get a large evening meal, and it sets off the process of gastric dilatation and then volvulus [twisting]."

The dog made his way to the boy's bedroom, where the sounds of the dog's

## FREE FEEDING CAN BE A PREVENTIVE IF A PUPPY CONTINUES TO GRAZE AS AN ADULT

Free-choice feeding can be very effective in preventing bloat if a dog is acclimated to this approach as a puppy since dogs free fed typically will eat very small amounts throughout the day. It must be stressed, however, that this should have begun when the dog was a puppy and he remains a "grazer" of food as an adult, eating small amounts throughout the day. If feeding behavior changes with adulthood and a dog begins to gorge, then separate meals should be fed.

Experts advise these additional steps help prevent bloat:

- ◆ Keep your dog's food bowl on the floor.
- ◆ Avoid serving one big meal. Divide it into at least two or three smaller servings throughout the day.
- ◆ If he gulps his food, try to slow his rate of eating. Some food bowls are designed with multiple small compartments, which make it harder for the dog to "inhale" his food.
- ◆ Restrict heavy exercise for one hour after eating.



distress woke him up. "The boy immediately realized something was very wrong with his dog and he ran into his parents' bedroom, woke them up and that started the ball rolling with a call to our emergency staff and a rapid early morning car ride to Cornell. He certainly saved his dog's life!"



**Dogs receiving veterinary care within six hours** of the onset of gastric dilatation volvulus have a much better survival rate than those receiving care after six hours, says James A. Flanders, DVM, ACVS, at Cornell.

**Combating Shock.** A dog diagnosed with bloat is quickly treated by decompressing his distended stomach by evacuating the air and any stomach contents. IV fluids and medications to combat shock are administered, then the veterinary team goes to work on shifting the stomach to its normal position and by performing a gastropexy.

"The stomach is surgically anchored in place to prevent a recurrence of GDV," Dr. Glickman explains. "Gastropexy is highly effective in preventing another episode of GDV, but some dogs following gastropexy may still have repeated

any time the owner elects," Dr. Flanders says. "The laparoscopic gastropexy offers a very rapid recovery and a much smaller incision than the standard open abdominal approach."

Preventive surgery outweighs the risk of emergency surgery for the patient as well as the owner's pocketbook, Dr. Flanders says. "There is very little risk doing a prophylactic gastropexy, which costs between \$500 and \$800, on a healthy dog." Emergency surgical treatment of GDV can cost \$3,000 to \$8,000, depending on the length of postoperative intensive care hospitalization needed.

episodes of non-fatal gastric distension."

Cornell University performs both emergency and prophylactic gastropexies. Prophylactic gastropexy is an excellent preventive measure for high-risk dogs. "We can do the prophylactic gastropexy in a minimally invasive, laparoscopic manner that can be done at the time of spay or castration or

## A RANKING OF BREED RISK

Gastric dilatation volvulus, or bloat, more commonly occurs in large breeds with deep, narrow chests. A Purdue University study, evaluating the risk to particular breeds, developed this ranking of the top 20 breeds for GDV from highest to lowest risk:

1. Great Dane
2. Saint Bernard
3. Weimaraner
4. Irish Setter
5. Gordon Setter
6. Standard Poodle
7. Basset Hound
8. Doberman Pinscher
9. Old English Sheepdog
10. German Shorthaired Pointer
11. Newfoundland
12. German Shepherd Dog
13. Airedale Terrier
14. Alaskan Malamute
15. Chesapeake Bay Retriever
16. Boxer
17. Collie
18. Labrador Retriever
19. English Springer Spaniel
20. Samoyed

## TWO CONSIDERATIONS: A HOME REMEDY KIT AND HELP GETTING YOUR DOG INTO THE CAR

Gastric dilatation volvulus, or GDV, also known as bloat, is a life-threatening condition that requires immediate emergency treatment. There are no effective home remedies or procedures owners should attempt with one exception, says Larry Glickman, VMD, DrPH, who has studied bloat extensively. "Some dog owners and breeders of high-risk dogs, especially those who live a long distance from veterinary care, may obtain an emergency kit for GDV from their veterinarian," he says. "They come with instructions and a tube that can be passed through the mouth into the stomach of a dog experiencing GDV to remove air and decompress it until veterinary care is available."

Dr. Glickman recommends owners of large- and giant-breed dogs plan for a potential episode of GDV by knowing the signs (a distended abdomen and persistent dry heaving) and the telephone number and location of the nearest veterinary clinic offering 24-hour emergency care.

He also advises owners who live alone or whose dog weighs more than they can lift have neighbors or friends on call to help get the dog into a car in an emergency.

"There is still much work to be done to help veterinarians and dog owners understand all there is to know about GDV," Dr. Flanders says. "Improvements in diet, emergency treatment and surgery have lead to a dramatic increase in survival after treatment for GDV. However, the most important factor in treatment of a dog with GDV is an informed owner. An owner who can recognize the signs of GDV and get prompt veterinary care will always be the most valuable member of team-GDV!" ♦



## TREATS ... (continued from cover)

A 60-pound dog needs 875 to 1,600 calories, depending on his activity, and a 10-pound dog may need only 200 daily calories.

At that lower limit, a 30-pound dog nearly reaches the 20 percent treat threshold merely by consuming one regular-size Greenie dental treat. "The old days of the jumbo Milk-Bone are gone," says Dr. Wakshlag, president-elect of the American College of Veterinary Nutritionists. "We've gone to smaller and smaller low-cal treats. Owners are slowly recognizing the importance of limiting calories and providing a more balanced diet."

Then there's the fast-food window beckoning. If a Labrador Retriever has a celebratory 300-calorie cheeseburger, "That cheeseburger has just gone well past the 20 percent limit. You're closer to 30," Dr. Wakshlag says, adding that family pizza night brings its own perils for pets collecting crusts as treats.

## TOUGH BREAK FOR SOME DOGS ON SPECIAL DIETS

Veterinarians recommend that owners give no treats to dogs on elimination diets — ones in which a specific food is withheld for a period to determine if the dog is allergic to it. Some nutritionists and manufacturers also say that dogs on therapeutic diets — those intended for specific illnesses such as inflammatory bowel disease — not be given treats to avoid affecting the foods' formulation, which in some cases includes hypoallergenic properties. As one manufacturer notes, "The food is a complete and balanced food that provides all the nutrition dogs need."

However, nutritionist Joseph Wakshlag, DVM, Ph.D., at Cornell says, "I personally still allow for treats in diets for things like kidney or liver disease so long as it's less than 10 percent. Gotta live a little!"

Here are calories counts of a sampling of popular fast foods:

FAST FOOD	CALORIES
<i>Burger King Whopper</i> . . . . .	650
<i>McDonald's Big Mac</i> . . . . .	540
<i>Wendy's Jr. Cheeseburger Deluxe</i> . . . .	340
<i>McDonald's 4-ounce cheeseburger</i> . . .	300
<i>Slice of Pizza Hut's 14-inch Thin 'N Crispy cheese pie</i> . . . . .	350
<i>McDonald's French fries (small)</i> . . . .	230
<i>Four Burger King chicken nuggets</i> . . . .	70

Occasional human treats can also add up. According to the USDA, a single one-ounce slice of cheddar cheese, intended for people, contains 113 calories. "You feed two pieces of cheese to a Yorkshire Terrier," Dr. Wakshlag says, "and you've pretty much met his calorie requirements for the day."

Calorie counts may soon be required on all pet food labels as a result of a recommendation from the Association of American Feed Control Officials (AAFCO). While the organization has no regulatory powers, states usually follow and mandate its recommendations.

Stan Cook, chair of the AAFCO Pet Food Committee, says the organization had advised manufacturers of new treats



Michael P. Carroll, Cornell

"We've gone to smaller and smaller low-cal treats," says Joseph Wakshlag, DVM, Ph.D., associate professor at Cornell and president-elect of the American College of Veterinary Nutritionists.

to start listing calories starting no later than June 2015. Existing products are to do the same by January 2017.

What's an owner to do meanwhile? "I think if you're going to use a treat, why not use one that at least has some sort of health benefit," Dr. Wakshlag says. Take dental treats, for example. At least they're going to clean their teeth."

Healthy alternatives include a green bean, baby carrot or slice of apple as a treat, says Dr. Wakshlag, who finds that most dogs will eat basic vegetables. It was easy to get his dog Gracie, a Stabyhoun, a rare breed of Dutch origin, interested in veggies: "I dropped them on the floor and she ate them. She loves her carrots." ♦

## PEOPLE TREATS AREN'T FREE CALORIES

If you give your dog an occasional sardine or piece of chicken, consider their calorie counts in his daily diet. Here are calorie counts of some human foods, according to the U.S. Department of Agriculture:

- ◆ Cubic inch of cheddar cheese: **69 calories**
- ◆ Sliced banana, one-half cup: **67 calories**
- ◆ Sliced raw apple, one-half cup: **28 calories**
- ◆ Sliced raw pear, one-half cup: **40 calories**
- ◆ One drained small sardine canned in oil: **25 calories**
- ◆ Raw baby carrot: **5 calories**
- ◆ Raw green bean (four inches long): **2 calories**
- ◆ One ounce of breast meat from a rotisserie chicken: **39 calories**
- ◆ Cubic inch of low-salt pre-packaged deli turkey breast: **15 calories**



Just a single small sardine packed in oil has 25 calories.



## THE MESSAGE IN ALL THE NUMBERS: LESS IS MORE — BREAK TREATS INTO SMALLER PIECES

If you want to compare the calories in commercial treats to the daily calories that your dog requires, these charts can help. They also — as a cautionary note — list the number of treats it would take to reach the daily 20 percent limit on treats that experts advise.

We made the calculations based on three hypothetical dogs and in some cases rounded the calories to the nearest half piece.

- ◆ One at 60 pounds who consumes 875 calories day
- ◆ One at 30 pounds who consumes 500 calories
- ◆ One at 10 pounds who consumes 200 calories

Many manufacturers state their recommendation for daily treats on their packaging. When the information on calories wasn't included, we asked the companies, and customer service representatives had the information immediately available. In the case of manufacturers' listing calories in kcals, the

metric unit of measurement is essentially the same as calories and we used that.

The message in all the numbers and evocations of tasty treats: Less is more for many dogs — break biscuits into smaller pieces or go ahead and make it into a game so they are burning a few calories to get those tasty morsels.

While manufacturers are exercising responsibility in their recommendations, we have to do the same and limit treats to our pets, despite their pleas. It's too easy to reach the 20 percent column in the following charts and risk the health threats to our pets, from cancer to osteoarthritis and diabetes that accompany obesity.

### CALORIE COUNTS OF TREATS FOR LARGE AND MEDIUM DOGS

TREAT NAME	CALORIES PER TREAT	DAILY TREATS COMPANY RECOMMENDS	TREATS FOR 30-POUND DOG TO REACH 20% OF DAILY DIET	TREATS FOR 60-POUND DOG TO REACH 20% OF DAILY DIET
Natural Balance L.I.T. Limited Ingredient Treats, potato & duck formula, regular size	30	intermittent or supplemental feeding	3.5	6
Alpo TBONZ	16	1 treat for each 5 pounds of body weight, but don't exceed 5 treats per day and don't exceed 10 percent of daily caloric intake	6.5	11
Blue Health Bars, baked with chicken liver	65	intermittent or supplemental feeding	1.5	2.5
Charlee Bear Dog Treats	3	Use as a training reward or as a regular treat. Treats given daily depend on dog's size, breed, activity level and whether he is overweight.	33	58
Greenies Dental Chews	95 for 25-50 lb. dog 152 for 50-100 lb. dog	1 daily	1	1
Milk-Bone Brushing Chews	63 for 25-49 lb. dog 99 for 50 lb. and up dog	1 daily	1.5	1.5
Milk-Bone Original Biscuits	40 medium-size treats 125 large-size treats	1 biscuit per 10 pounds of dog's weight, though "calorie requirements are variable based on size and activity level"	2.5	1.5
Pup-Peroni, original beef flavor	28	not to exceed 10 percent of daily calories	3.5	6
Snausages In A Blanket, beef & cheese	25	not to exceed 10 percent of daily calories	4	7
Zuke's Power Bones, beef flavor	16.38	feed before, during or after periods of increased activity or exercise	6	10.5

### CALORIE COUNTS OF TREATS FOR SMALL DOGS

TREAT NAME	CALORIES PER TREAT	DAILY TREATS COMPANY RECOMMENDS	TREATS FOR 10-POUND DOG TO REACH 20% OF DAILY DIET
Natural Balance L.I.T. Limited Ingredient Treats, potato & duck formula, regular size	15	intermittent or supplemental feeding	2.5
Alpo TBONZ	16	not to exceed 10 percent of daily caloric intake	2.5
Charlee Bear Dog Treats	3	Use as a training reward or as a treat.	13
Milk-Bone Brushing Chews, mini size	31 for 5-24 lb. dog	1 daily	1
Milk-Bone Original Biscuits, small	18	1 biscuit per 3-4 pounds of dog's weight	2
Pup-Peroni, original beef flavor	28	not to exceed 10 percent of daily calories; break into small pieces for small dogs	1.5
Snausages In A Blanket, beef & cheese	25	not to exceed 10 percent of daily calories	1.5





**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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## COMING UP ...

EMERGENCIES



ANESTHESIA  
FOR TEETH  
CLEANING



PROBIOTICS



VESTIBULAR  
SYNDROME

## Two Delightful Miniature Poodles' One Flaw: They're Big-time Barkers

**Q** I have two black Miniature Poodles, 3 and 4 years old, who are delights in every way — a regular clown corps — except they're big barkers. I save on a security system, but I know my neighbors are weary of the noise. "They bark at everything," one told me just this week. Toby and Lily bark at other dogs passing by, strangers, children, the mail carrier and truck, delivery people and anyone who rings the doorbell.

I read on one animal website that I should say "Quiet" after several barks and then hold the dogs' muzzles shut. That sounds both dangerous and cruel. Would you please help us? It can't be good for our health to have this stress.

**A** Your Poodles indeed sound delightful — except when they are barking. The terrible two may make the problem worse because there is a phenomenon known as social facilitation. If one dog does it, the other will follow suit. That works well for house training and appetite stimulation, but results in longer barking sessions. If you yell at the dogs, you add your barks to theirs and the session will continue.

The first thing to do is to give these two dogs jobs. They are young, apparently healthy and have too little to do. They spend their day looking and listening for something at which they can bark — from the children passing the house to a leaf drifting down. You should organize a training and exercise program for them. It would be best to schedule the most fun games for the times when they are most likely to bark. For example, take them for walks when mail usually arrives. Play fetch when schoolchildren are going to the bus stop. My goal is to have them too tired to bark.

The second thing to do is to reduce the stimuli for barking and the intensity. I would bet that

they are peering out the window to catch a glimpse of a barkable object such as a passing truck. Try to keep your curtains shut on the street side or put window wallpaper at Poodle height (Poodle on hind legs probably) so they cannot see out, but light will still come in through the translucent material.

You may have to move furniture or block access to chairs and couches so they can't climb up to look outside. You can also reduce the intensity of auditory stimuli so they cannot hear them using a white noise machine or even a radio playing classical music fairly loudly.

The technique you describe — grabbing their muzzles and saying "Quiet" — is not particularly cruel but is unlikely to change their motivation to bark unless you are more forceful than I think you would like to be. There is a technique you can use, but it will be harder with two dogs. You should be aware of Houpt's Rule: One dog per adult in the household, a rule I developed after trying to help single ladies with multiple dogs but just one pair of hands.

The technique is clicker training. (See [clicker-training.com](http://clicker-training.com).) The principle is that the dog learns that a click means food. This is fairly easy to teach because all you have to do is click, using a clicker or even clucking your tongue each time the Poodle tastes a delicious treat.

After 12 to 20 pairings of the taste and the click, they will find the sound itself rewarding. Now you can "mark" the behavior you want, in this case, silence. So you stand with your clicker while the dogs bark and as soon as they stop for two seconds, toss one or both dogs the treat. This is a lot more fun for the dogs than having their muzzles grabbed.

Once they seem to understand, you can increase the number of seconds they must be quiet before you click and give the treat. There are more punitive methods, but these should diminish the racket. Good luck and remember, "Silence is golden." ♦

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