

DOG Watch

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

Vol. 18, No. 7 & July 2014

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Our similarities with dogs make them ideal candidates for research.

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IN THE NEWS ...

The 'Fat Gap' Continues, But Owners Don't See It

Slimming down obese dogs to a healthy weight shows no signs of progress nor of significant owner recognition of the problem, according to the Association for Pet Obesity Prevention. Its 2012 survey of veterinary assessments found that 52.5 percent of dogs were overweight or obese. Results of a 2013 survey of 1,421 assessments released this year found 52.6 percent were still in the same shape.

Even more distressing, in what the association describes as a "fat gap," 93 percent of owners with dogs deemed obese believed they were of normal weight. And despite 72 percent of the owners' acknowledging obesity can lead to shortened life spans in dogs, 42 percent said they didn't know what healthy weight looked like in their pets. (See the body chart in "Facing a Hard Fact: Our Dogs Are Fat," DogWatch, April 2014.)

The association calls pet obesity an epidemic, linked to osteoarthritis, diabetes, heart disease, joint injuries and cancer. •

The No. 1 Reason for Aggression

Fear can cause dogs to go on the attack, especially when they feel threatened and have no way of escape

A ggression is the most common and most serious canine behavior problem animal behaviorists encounter, according to the ASPCA. It can result in threats or injury to people, cats, other dogs and animals.

Contrary to popular opinion, however, most aggression in dogs is defensive, intended to put distance between them and their targets,

says Ilana Reisner, DVM, of Media, Penn., who completed her residency and Ph.D.



Looking away or flicking the tongue is Intended to calm a frightening individual. Baring the teeth is the next step.

at Cornell University College of Veterinary Medicine.

It's Self-defensive.

"Any fearful animal will try to get away first, and his response will be worse if there's no escape — for instance, if he's cornered, indoors or on leash," says Dr. Reisner, one of only 62 members in the U.S. board-certified by the

American College of Veterinary Behaviorists. She adds fear-related aggression can appear (continued on page 6)

We Know Chocolate Can Be Toxic

But sugar-free gum and marijuana-laced cookies? They're among growing risks to pets' health

Today many dog owners know to keep chocolate out of paws' reach, but two other serious health threats have recently emerged: marijuana-laced cookies and sugar-free chewing gum.

"Since the legalization of marijuana in some states like Colorado, we have seen an overabundance in the increase of animals who ingest edible products made with THC oil," says Elisa Mazzaferro, DVM, Ph.D., ACVECC, a specialist in emergency and critical care at Cornell University Veterinary Specialists in Stamford, Conn. "THC [tetrahydrocannabanoid] is the active toxic ingredient in marijuana."

Increased Toxicosis. Dr. Mazzaferro, who spent more than a decade at an emergency and critical care practice in Colorado, where recreational and medical use of marijuana is now legal, is concerned about its impact on dogs' safety. She participated in a study published in the Journal of Emergency and Critical Care that found a significant correlation between the increased number of medical marijuana licenses and marijuana toxicosis in dogs in Colorado.

Researchers evaluated 125 dogs known or suspected of suffering marijuana toxicosis from January 2005 to October 2010 in cases at two hospitals — a private specialty

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DOG Watch

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SHORT TAKES

Our Similarities Make Dogs Ideal for Research on Aging

A sweeping study, initially funded with a \$340,000 grant from the Institute on Aging at the National Institutes of Health, will explore the biology of aging, diagnosis of disease and possible interventions. The model for the research to be conducted nationwide: our companion dogs. We share more than 90 percent of our DNA with them, and similarities don't stop there.

"DNA aside, dogs make a wonderful model for understanding the biology of aging," says Professor of Pathology Daniel Promislow, Ph.D., at the University of Washington. As director of the project, the Canine Longitudinal Aging Study (CLAS), he's understandably excited about the study's scope and in an interview lists the reasons for its focus on dogs:

- "They live in the same environment as humans do, allowing us to better understand how environment affects health and aging.
- "Despite the genetic differences between dogs and humans, there are hundreds of diseases that are found in common in the two species.
- "The health care system for dogs is second only to humans'.
- "Because dogs are shorter-lived than humans, we can study the process of aging in just a few years."

Geneticist Adam Boyko, Ph.D., at Cornell University College



Medicine, is on the CLAS executive committee, with representatives of Yeshiva University, University of Georgia, University of Alabama, Prairie View A&M University and Emory University. "Once developed, a canine model holds enormous promise, and we expect it to have a significant impact on aging research," Dr. Boyko says.

We already have a broad knowledge of dog genetics. "Purebred dogs tend to be relatively inbred," Dr. Promislow says. "From the dog's perspective, this can be problematic, increasing the risk of certain diseases. At the same time, researchers have already shown that this unusual genetic structure can help us to identify specific genes associated with disease risk."

Planning for the project will take two years, with additional funding sought from non-profit organizations, companies and others interested in the aging and health of companion animals. The goal, Dr. Promislow says, is to track traditional traits (environmental factors, diet, breed, weight, annual health history, etc.), as well as modern traits, including measures of expression levels of the entire genome, bacteria in the gut and elsewhere, and circulating small molecules.

The hope is that the study will enable scientists to identify predictors of diseases long before obvious symptoms arise, Dr. Promislow says, and ultimately help us understand factors associated with healthy aging in both humans and dogs.

Another Dog Model

Rsearchers at UC Davis School of Veterinary Medicine have identified the genetic mutation responsible for a form of cleft palate in Nova Scotia Duck Tolling Retrievers, according to their report in the journal PLOS Genetics. The discovery, which provides the first dog model for the craniofacial defect, could lead to a better understanding of cleft palate in humans, the researchers say. The disorder, one of the most common birth defects in children in the U.S., affects about one in 1,500 live human births.

The study shows dogs have multiple genetic causes of cleft palate that will aid in the identification of more candidate genes relevant to human cleft palate. •

Burns Call for Quick Action at Home

Some will result in shock, while others may not initially be painful, but all require veterinary care

Dogs who remain underfoot during food preparation, bask for hours in a sunny back yard or walk on hot pavement are all at risk for burns. The three main types of burns are chemical, electrical and thermal, which is caused by hot objects.

"Burns, in general, are not common, but I see electrical burns from puppies or dogs chewing on cords that are left exposed and within their reach, and I have seen burns on small dogs from being underfoot when an owner with hot tea or coffee trips over them," says Elisa Mazzaferro, DVM, Ph.D., ACVECC, a specialist in emergency and critical care at Cornell University Veterinary Specialists in Stamford, Conn.

Life Threatening. "The affected patient can develop life-threatening non-cardiogenic pulmonary edema — fluid flooding the lungs — as a result of massive

adrenaline release when they are shocked by the electrical cord," she says. "Any dog who chews on a cord needs prompt evaluation by a veterinary professional."

First-degree burns affect the skin superficially and cause discomfort. Second degree painfully penetrates several underlying layers, and third-degree burns injure all layers of the skin and can result in sbock. If your dog has been burned, don't be fooled by his seeming lack of pain.

"A person may not be able to distinguish first- from second- or third-degree, also known as full thickness burns,"

Dr. Mazzaferro says. "In fact, a first- or second-degree burn may be more painful initially than a third-degree burn, as the nerves have been burned and will not be painful until the overlying skin sloughs off and the underlying tissue and nerve endings are exposed. Whenever there is a burn, the animal should be evaluated by a veterinary professional."



Make the kitchen off limits during meal preparation and afterward until the stovetop has cooled.

If your dog suffers a burn, here's quick action you can take:

- Safely restrain him with a muzzle to avoid being bitten. If you don't have one, you can use a leash or nylon stocking to prevent him from opening his jaws and biting.
- Gently apply a damp cloth as a cold compress on the burn site.
- Alert the nearest veterinary clinic you are en route so the staff can have an exam room ready to treat this medical emergency.

To reduce the risk of your dog being burned, Dr. Mazzaferro recommends these measures:

- Place electrical cords inside chewresistant casings, especially if you have a puppy or young adult dog keen on exploring his surroundings.
- Usher dogs into an enclosed room with toys and treats or a canine kennel while you prepare meals and wait to welcome them out until the stovetop has cooled.
- Switch from flame candles to batteryoperated ones that flicker but do not emit heat.
- Store all chemicals in storage areas that pets and children can't access.
- Position a fireplace screen to block access to wood-burning or gas-burning fireplaces. The screen also prevents hot cinders from flying out.

Sadly, the prognosis for survival worsens when a dog incurs second- and/ or third-degree burns on more than 40 percent of his body. "If a client is aware of the prognosis and is committed to saving the animal's life, then I am committed to treat aggressively to give them a chance of surviving," says Dr. Mazzaferro. ...

TACTICS YOU SHOULD NOT TRY

These at-home remedies can worsen a burn and slow healing:

- Don't apply a gauze pad or wrap gauze on the burn site. Gauze can disrupt a blister if one forms.
- Don't use ice cubes on the burn site to cool it. You can inadvertently cause hypothermia

 excessive loss of your dog's body heat.
- Don't apply over-the-counter first-aid burn ointments formulated for people on the wound. Dogs can be sensitive to ingredients in products made for human use.
- Don't dab or pour vinegar or lemon juice or any other substance to try to neutralize a

- chemical burn. "Owners may want to negate the affects of an alkaline chemical burn, but the net result is a heat-producing, exothermic reaction, which can cause more tissue damage," Dr. Mazzaferro says.
- Don't wrap a burned dog too tightly in a towel because he can overheat on the way to the veterinary clinic. Brachycephalic breeds — those with short muzzles such as Pugs and Bulldogs — are at an increased risk for overheating. At the same time, don't wet more than onequarter of the total body, or he can develop hypothermia.

POISONS ... (continued from the cover) referral hospital and a university teaching hospital.

Seventy-six dogs had known marijuana exposure or a positive urinary drug screening test. Six dogs had known marijuana ingestion and a negative urinary test, and 43 dogs with known



A leaf from a marijuana plant.

marijuana ingestion were not tested. The findings showed the incidence of marijuana toxicosis at both hospitals increased fourfold, while the number of people registered for medical marijuana in the state increased 146-fold in the past five years. Two dogs who had ingested medical-grade marijuana in baked products died.

The goods or candy used for human THC is processed and made into baked products, Dr. Mazzafarro says. "The oil is very potent and does not take much to ingest to quickly get clinical signs in a dog."

Medical use of marijuana is now legal in 20 states and the District of Columbia, and recreational use is also legal in Washington state. Although the Pet Poison Helpline doesn't release the volume of calls, it has noted a 200 percent increase in questions about marijuana. "Of all illicit drugs, marijuana has always been responsible for the most calls to Pet Poison Helpline, but this recent increase is the sharpest we have ever seen," says toxicologist Ahna Brutlag, DVM, MS.

Signs of marijuana poisoning in dogs, which can begin up to an hour after ingestion or smoke inhalation, include incoordination, dilated pupils, vomiting, coma, agitation, changes in heart rate, tremors and seizures, according to the hotline.

Xylitol Risks. "The active chemical in sugar-free gum is xylitol, and it doesn't take much of it for an animal to develop low glucose and seizures or serious liver problems," Dr. Mazzaferro says. "A 55-pound dog who ate five or six pieces of chewing gum vomited and came to us within seven hours of ingesting the gum and all of her liver enzymes were off the chart. Xylitol is a very quick poison. Fortunately, this dog did survive, but she spent several days in our hospital and received IV fluids and anti-nausea medications to support her liver."

Sometimes veterinarians treating dogs who have ingested sugar-free gum may have difficulty in deciding on treatment. "Gum companies say that the amount of xylitol in their formulations is proprietary," Dr. Mazzaferro says.

The substance is also used as food additive in some breath mints, baked

goods, toothpastes, jams and energy bars. Dr. Mazzaferro's advice: treat these food items as you do your medications by never leaving your purse containing gum on the floor or leave any of these products on kitchen counters. "Keep them locked up and away from pets. If possible, avoid purchasing gums that contain xylitol."

Human Medications. According to the ASPCA's Animal Poison Control Center, human medications once again topped the list of poisons most commonly ingested by pets last year at nearly 20 percent of all calls. A majority involved cardiac medications to control heart rate and blood pressure, followed by antidepressant and pain medications.

Dr. Mazzaferro cautions owners to be alert to their dog's reactions indicating poisoning: vomiting, diarrhea, excitability, excessive salivation and possible loss of consciousness. The signs depend on factors, such as age, health, the amount of food ingested and the duration between the time the food was ingested and veterinary treatment.

Some foods and medicines deemed perfectly safe for you can be dangerous and deadly if your dog ingests them for one simple reason: His body metabolizes food differently, Dr. Mazzaferro says. "In addition, smaller animals are more sensitive to even minute amounts of some poisons due to a very small body size. Less of the toxin can be even more deadly for very small animals." •

Common toxins include:

Chocolate — Dark chocolate is the biggest problem because it contains nearly nine times more theobromine — a molecule similar to caffeine — than milk chocolate. A dog who ingests chocolate can

— than milk chocolate. A dog who ingests chocolate can experience elevated heart rate, high blood pressure, tremors and seizures. Chocolate ingestion represents an average of 26 calls per day to the ASPCA Poison Control Center.

Raisins and grapes — The most common early symptom of toxicity is vomiting, then diarrhea, lethargy, excessive thirst and urination, with sudden kidney failure developing within one to three days, says VCA Animal Hospitals.

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Onions and garlic — This pair in any form — raw, powdered, cooked or dehydrated — contains alliums that dogs

do not metabolize very well. They can cause gastrointestinal upset, destruction of red blood cells and anemia.



Avocados — The ingredient persin in an avocado's leaves and fruit can cause vomiting and diarrhea in dogs.



Caffeinated coffee, tea and soda — Excessive caffeine consumption can cause heart palpitations, rapid breathing, muscle tremors and sei-

zures. Stimulant drinks and some cold medicines for humans also contain caffeine.

Macadamias — These nuts can cause vomiting and diarrhea and in some cases paralysis.

Uncooked bread dough — Rising dough on a cookie sheet on your kitchen counter could be an invitation a hungry dog, but yeast in the dough expands, causing painful swelling and stretching of the abdomen. "The dough can ferment in your dog's stomach, causing signs similar to drunkenness," Dr. Mazzaferro says.

Alcohol — It takes only a small amount to damage your dog's liver and possibly be lethal. Keep all beer, wine and hard liquor inaccessible to him. "A dog can get drunk, nauseous and his respiration can be affected. He can also injure himself because the alcohol makes him uncoordinated," Dr. Mazzaferro says. "And a dog can aspirate vomit into his lungs."

Fat from meats — If you want your dog to enjoy a piece of your T-bone, cut a small lean piece. Don't give him fat or gristle. They can cause vomiting, diarrhea and inflammation of the pancreas, leading to pancreatitis.



Raw fish or meat — The protein in them can harbor bacteria such as salmonella that can cause vomiting and diarrhea.



Milk — A small amount may occasionally be OK for some dogs, but keep in mind that a dog's digestive tract becomes somewhat lactose intolerant after puppyhood. Milk offered daily can cause diarrhea and other GI upsets. ❖

IMMEDIATE ACTION TO TAKE

If you suspect your dog has ingested a poison, time is of the essence. Contact his veterinarian, the 24-hour Pet Poison Helpline (800-213-6680) or the ASPCA APCC hotline (888-426-4435). Both are staffed by veterinary toxicologists.

You should immediately:

- Monitor your dog and remove other pets from the area who also could ingest the food or medicine.
- Collect a sample of the poison in a plastic resealable bag to take to the veterinary clinic.
- Limit your dog's movement by wrapping him in a towel or holding him to prevent the spread of the poison in his body.
- Don't use 3-percent hydrogen peroxide to induce vomiting without advice from a veterinarian. If, for example, your dog had bitten into the batteries of the TV remote, putting hydrogen peroxide in his mouth would cause caustic burns on his esophagus. "Hydrogen peroxide doesn't always work and can be irritating to the stomach if you give too much," Dr. Mazzaferro says. "We have quicker fixes at the veterinary clinic to induce vomiting, such as apomorphine. It is much more reliable and reverses the effects."

Veterinarians apply a tablet of apomorphine into the conjunctival sac in the eye or administer it by injection. "Apomorphine works better in dogs than cats," Dr. Mazzaferro says, but should not be administered to any animal with breathing or neurological problems. In some cases, if an ingested substance is caustic or contains a petroleum-based product, veterinarians will also not induce vomiting.

Home remedies such as syrup of Ipecac, salt water or mustard seed water have not been proved to be effective in inducing vomiting safely in pets, Dr. Mazzaferro says. "Expired Ipecac can cause cardiac arrhythmias, and salt can cause sodium toxicity and sudden brain swelling in high doses."

To be prepared for an emergency, keep a wellstocked pet first-aid kit, post the phone number of the nearest emergency veterinary clinic on your refrigerator and enroll in a veterinarian-approved pet first-aid class.

FEAR ... (continued from the cover)

to be an offensive reaction but is actually proactive self-defense.

While some people say dogs attack without warning, it's a rarity. If they have an opportunity, dogs warn they're afraid. Their body language expresses their feelings. For instance, they may initially look away, lower their bodies and flick their tongues - intended to appease or calm the threatening individual. If that isn't effective, they may threaten aggression by flattening their ears, baring teeth, barking and lunging.

Pain from unrecognized medical conditions can also cause dogs to lash out. Other common triggers include:

Strangers in the home or the approach of unknown people or dogs outside the home, especially if unexpected. Dogs may also react to unintentionally threatening body language, such as facing him with direct eye contact, Dr. Reisner says, as well as interactions humans would consider friendly, such as reaching to pet a fearful dog.

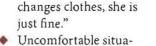
BACK OFF FROM THESE TELLTALE SIGNS

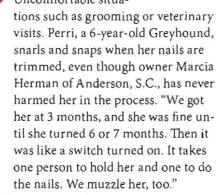
If you know what to look for, it's easy to recognize a fearful dog through body language. Typical signs include:

- A stiff, still body
- Low, threatening bark
- Growls, snapping, nipping and biting, or a tightly closed mouth
- Lowered tail
- Head turned away

As the threat increases, the dog's response escalates. Your best recourse: Back off without turning around. And if the problem continues, consult a veterinary behaviorist for expert help.

- Stressful environments, such as animal shelters or boarding kennels.
- Men and women in uniform, such as police officers and delivery drivers. "My brother's Australian Shepherd, Emma, is terrified of uniforms," says Jill Fisher Gibbs of Billings, Mont. "My brother is a paramedic and Emma is afraid of him when he comes home in uniform. When he changes clothes, she is just fine."





- Skateboards, bicycles and other startling, noisy and fast-moving stimuli.
- Young children who move quickly and impulsively, or touch them inappropriately - pulling their ears or tail or trying to ride them. Some children may put their face up to a dog's, perhaps offering a kiss, or they lean over his head, reach for his food or toy, or try to crawl into his crate. Parents often think the behavior is endearing, not realizing the danger. According to the Centers for Disease Control, half of the 4.5-million annual dog-bite victims are children. The rate of dog bite-related injuries is highest among children between the ages of 5 and 9 years.

Typically, the common cause of fear reaction is not a bad experience, as you might assume, but anticipation of something bad, Dr. Reisner says. "Often



Young children who move quickly and impulsively, or touch dogs inappropriately can trigger defensive aggression. Half of the annual 4.5 million dog-bite victims in the U.S. are children.

there is an underlying worry or anxiety, making unfamiliar triggers more frightening. Avoidance and safety are most important, and then desensitization and counter conditioning."

If your dog displays fearful or aggressive behaviors, give him space until he can relax. You don't want him to feel cornered or trapped. Never punish him. Punishment increases fear and can compromise his trust.

Of course, your dog is going to have to have his nails trimmed or encounter strangers at some point. It's unlikely you can completely eliminate fear aggression, but sometimes you can manage it by desensitizing and counterconditioning him to the things that scare him, taking steps to help him feel more comfortable in frightening situations, and if necessary, avoiding those situations.

For example, your dog may be afraid when strangers come to the home. You don't want to stop having guests, so you need to gradually expose your dog to visitors from what he considers a safe distance. When they are in sight but far away, reward him with treats. Food, toys or other counterconditioning devices should come from the person the dog trusts - you - rather than from the scary, unfamiliar person. Continue this every time guests are in the home. Done over a period of time - and it will likely

require multiple practice sessions — your dog will eventually learn to associate guests with his favorite liver snacks and may even begin to welcome visitors.

A Wide Berth. Keep treats in your pocket when you walk your dog. If you see another dog at a distance, walk your dog at a wide berth from the approaching dog (or skateboard or stranger) and keep moving while rewarding him for paying attention to you. With practice, your dog will learn to look to you when he sees something frightening instead of reacting fearfully.

Dogs who are fearful of veterinary visits and travel call for more patience. Marty Becker, DVM, who advises practices on fear-free visits for pets, recommends leaving your dog's travel crate out at home so he becomes used to its pres-

ence and priming it with food, treats and toys. This helps the dog form positive associations with the crate so he's not reluctant to ride in it.

An hour before a car ride or visit to the veterinarian, release calming pheromones in the room where the dog spends the most time and apply them to the crate's interior or bedding. You can buy canine pheromones in the form of sprays or wipes. Dr. Becker also suggests using Thundershirts, tight-fitting garments that calm the dog by providing a constant, gentle "hug."

For dogs who bite or threaten to bite at the veterinary clinic, Dr. Becker recommends using desensitization and counterconditioning to teach them to wear a muzzle.

At the clinic, check in while your dog waits in the car if it isn't a hot day.



Uncomfortable situations such as grooming and veterinary visits, where dogs feel cornered, can cause them to lash out.

Then wait with him until you can take him straight into the exam room. If you have a small dog in a carrier, instead of letting it hang at your side, hold it as if it contains a valuable and delicate object — which, of course, it does.

Stree-free Rides. Practice car rides long before your dog needs to go anywhere. Start by placing his crate — with him inside - in the car and closing the door. It's best if the crate is on a flat surface so the dog is comfortable. Sit in the car for a few minutes, then take him back indoors. After doing this a few times, move on to starting the engine and then backing down the driveway and back in. Eventually, go around the block or take him to the drive-through to pick up some burgers or a breakfast sandwich. Rewarding him with a bite of beef or egg can go a long way toward enhancing his appreciation of car rides. Take him to the veterinarian for practice visits that involve only petting and treats from the staff, nothing scary or painful.

If your dog's aggression continues and he becomes a threat to you or others, a veterinary exam is warranted to rule out medical conditions and then a consultation with a certified behaviorist. The American College of Veterinary Behaviorists' website lists members by state at www.dacvb.org. •

MODIFY THE BEHAVIOR GRADUALLY — WITH TREATS

Socialization is important, but inherited temperament can also be a factor in aggression, says behaviorist llana Reisner, DVM. "Obtaining a puppy from a responsible, ethical and experienced breeder who socialized the pup and can assure you the parents are not fearful is a good thing. If a dog is adopted from a shelter or breed rescue, it may be more difficult to predict behavior, but be prepared to address fearfulness if it becomes apparent."

If you do notice fearful behavior in a puppy, Dr. Reisner recommends carefully, gradually exposing the dog to the particular situation, sound or person that evokes the fear and using food rewards to replace the fearful response with an acceptable behavior. This process, known as

Inherited temperament can be one predictor of aggression. If the parents aren't fearful, all the better for their offspring.

desensitization and counterconditioning, is integral to modifying behavior.

"The most important issue is learning to recognize fearfulness before aggression is apparent," Dr. Reisner says. "Owners shouldn't force interactions with the person or situation the dog is fearful of but instead work at the dog's pace, again watching the individual dog's body language."



Katherine A. Houpt, VMD, Ph.D., here with her Cairn Terrier, Denver, 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:

DogWatch Editor 800 Connecticut Ave. Notwalk, CT 06854 or email degwatcheditor@



He Does Whatever, Whenever, And That Can Include Biting

My husband and I have a 10-month-old German Shepherd who will not accept either of our two grown sons when they visit - each separately. Lucky becomes hostile and bares his teeth, and I'm sure would bite them. Both my husband and I have been bitten several times.

Lucky is also aggressive to other dogs, and I don't take him to the dog park because of his possibly fighting with them. He is very independent in doing what he wants when he wants. My husband is the only one who can handle him, but he has to be extremely stern with him. We've had him since he was 3 months old and teaching obedience has always been a challenge. As it now stands, he hasn't been neutered because we have spent time and money already on him. We would appreciate any suggestions.

Lucky is a lucky dog to have owners concerned for his welfare and others'. He is aggressive to your sons, and I am willing to bet he is aggressive to visitors such as workers. If your sons stay overnight, the simplest solution would be to board Lucky.

In fact, depending on his behavior, perhaps he should be boarded whenever you have quests. If your sons come only for a few hours, you can simply isolate Lucky before they arrive. The isolation is not a punishment, so try to make his room as pleasant as possible. Provide a longlasting treat, such as a Kong filled with peanut butter or squeeze cheese and also a comfortable bed. You can practice putting him in this room when you don't have guests so he learns to love these time-outs.

In addition to safety advice, I would like to provide a method for improving his attitude toward visitors. You noted that even teaching him obedience is a challenge. The most important command for any dog is "Stay." If he stays, he won't jump on you; if he stays he won't run

First up for Lucky: obedience training, starting with

"Stay," the most important command for any dog,

into the road. In Lucky's case, if he stays 10 feet from the front door, he won't intimidate visitors.

Neutering is unlikely to cure his aggression; only a small percentage of dogs become less aggressive after castration. Recently, it has been learned that neutering can increase the risk of certain cancers. Do not breed him because we know that aggressive tendencies are inherited.

You and your husband should practice obedience with Lucky — Sit, Down, Stay, Heel and whatever else you want him to do for five minutes apiece daily. If he obeys a command the first time you give it, reward him with a slice of hot dog or bit of cat food. The fact your husband has to be stern with him indicates he may not have been rewarded. Our goal is that you and your husband can take Lucky for a walk or to the veterinarian's without difficulty.

Be sure his aggression is not, in part, caused by pain. His veterinarian can examine him for various pain-producing maladies such as bad hips or ear infections because pain would intensify his reactions.

His behavior sounds serious enough that you should probably see a board-certified veterinary behaviorist. (See www.dacvb.org for a list.) With management and training, Lucky's deportment could be as good as his looks. It will be much easier to change his behavior now than when he is older. Best of luck. *

CORRESPONDENCE

The Editor DogWatch' 800 Connecticut Ave. Norwalk, CT 06854 dogwatcheditor@cornell.edu

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