Cornell DogWatch

Expert information from the Cornell Margaret and Richard Riney Canine Health Center December 2022 – Vol. 26, No. 12

THIS JUST IN

Cornell Leads the Way

Addresses veterinary burnout

A study led by Clinton L. Neill, PhD., assistant professor of population medicine and diagnostic sciences at the Cornell University College of Veterinary Medicine, looked for solutions to the increasing levels of veterinary burnout. The problem costs the industry an estimated $1 billion to $2 billion a year and impacts pet owners who sometimes scramble to find veterinary care.

Dr. Neill's research shows that over half of practicing veterinarians and many veterinary technicians are experiencing burnout at some level. Using data from an American Veterinary Medical Association survey, he learned that veterinary burnout is higher among recent graduates, veterinarians with higher educational debt, veterinarians who mainly practice with cats and dogs, and in women. Those in private practice (not practice owners, who have more control over their schedules) have a higher risk of burnout than those in a public setting, such as academia, government work, or another industry.

Burnout, of course, is not limited to veterinarians. Over the last few years, human health-care organizations have taken steps to counter physician burnout in human medicine by focusing on improved communication, optimized workflow, and allowing the pursuit of individual projects. The changes are showing progress, says Neill.■

Neill, C.L., et al. "The Economic Cost of Burnout in Veterinary Medicine," Frontiers in Veterinary Science, Feb. 25, 2022.

INSIDE THIS ISSUE

Safely Break Up a Dog Fight

Even good dogs do bad things when riled up

Witnessing a dog fight is scary, especially if your dog is involved. Our first instinct as dog lovers is to dive in and rescue our dog. But take a second to think through your strategy so that YOU don't get bitten by accident.

"Avoid intervening physically because you may be bitten," says Pamela J. Perry, DVM, PhD, behavior resident at Cornell University's College of Veterinary Medicine. While in the middle of a fight, your dog's sympathetic nervous system is in high drive with a lot of adrenaline going. If you touch her or get in the way, she may think you are the other dog and bite you by accident.

Stay Calm

Most dog fights look and sound worse than they are. Small spats between housemates or a minor disagreement at the dog park generally involve a lot of snarling and snapping, but if the dogs do make contact, they tend to nip and then let go right away. These bites may not even break the skin.

Fights can get more serious if the dog is truly dog aggressive or if she has a history of smaller fights either with one particular dog or with several.

Try to control the pitch of your voice. High-pitched screaming can trigger some of your dog's prey instincts and may rile the dogs up even more. Use a firm, authoritative voice to try to break through the dogs' focus. If your dog has a strong "leave it" command, this may work.

"Try to separate the dogs using their leashes, if attached," says Dr. Perry. Both owners can pull in opposite directions. If both dogs involved are yours, identify which dog is the aggressor and pull that one away from the other dog, who will likely quit as soon as she isn't being actively attacked.

Dogs off leash? "You can try interrupting the fight by spritzing the dogs' snouts with water or a citronella deterrent such as SprayShield by PetSafe," says Dr. Perry. "Then as soon as the fighting stops, separate the dogs and remove them from the situation."

If you are frequently around groups of dogs, Dr. Perry also recommends reading the article "How to Break Up a Dog Fight Without Getting Bitten" by the late well-known veterinary behaviorist Sophia Yin, DVM, CAAB. Dr. Yin's advice is to shove a board or other large object between the fighting dogs, or make a loud noise to distract them.

Another creative distraction from Dr. Yin is opening your car door and inviting your dog to hop in. Similarly, calling to your dog and starting to walk away might work (just don't go far in case it doesn't).

If you must intervene physically, avoid touching the front of the dog. Instead, grab the dog's back legs from behind and drag him straight back away from the other dog quickly. Do this with caution, as he may whip around and try to bite you.

After the Fight

Get some distance between the two dogs and prevent them from approaching each

(continues on page 2)

A dog showing teeth with a hard eye and curved tail (whether wagging or not) is angry and considering an attack.

Petting a Dog Increases Brain Activity

Study used a plush animal named Leo as the control

A study at the Basel University in Switzerland found brain activity increased when a person interacts with a dog versus a plush animal. Researchers used female dogs (a 6-year-old Jack Russell, a 4-year-old Goldendoodle, and a 4-year-old Golden Retriever) and a plush animal named "Leo." Leo had a hot water bottle filled with warm water inside it, and it was called by its name during the study, just as the dogs were.

The researchers gathered 21 individuals who participated in six sessions (nine men and 10 women; mean age 32; two participants dropped out). In three sessions, the participants had contact with a dog. In the other three control sessions, they interacted with Leo. Each session had five two-minute phases with increasing intensity of contact to the dog or Leo from the first to the fourth phase.

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Interacting with our dog increases brain activity.

To assess brain activity, the researchers measured oxygenated, deoxygenated, and total hemoglobin, and oxygen saturation in the frontal lobe/frontopolar area of the brain.

Interactions with a dog or with Leo significantly increased the concentration of oxygenated hemoglobin from the first to the fourth phase, but the level was higher in the dog sessions. Other measures showed similar patterns. "From watching the animal to feeling it passively to actively petting the animal, the interactional closeness increased and, with it the intensity of stimulation as well as the number of senses involved. This led to an increase in brain activation," say the researchers.

The study concluded that interaction with a dog stimulated more brain activity than Leo, suggesting that interactions with a dog can activate stronger attentional processes and elicit more emotional arousal than interacting with a nonliving stimulus. The results are in line with previous studies, including a 2020 study done in Japan that used petting a horse versus a plush animal to track brain activity.

The researchers plan to expand on the study. The horse study found a difference in brain activity between people who liked horses versus those who weren't as sure, and a study using cats found a possible gender difference when reacting to cats. ■

Marti R, Petignat M, Marcar VL, Hattendorf J, Wolf M, Hund-Georgiadis M, et al. (2022) Effects of contact with a dog on prefrontal brain activity: A controlled trial. PLoS ONE 17(10): e0274833.

(Dog fights, continued from page 1)

other again, even after they start to calm down. Trade contact information with the other owner so you can find out about each dog's vaccination status.

Give your dog a thorough inspection. Part the hair anywhere it is wet so you can look at the skin. Ear wounds are common in dog fights, and bleed like crazy even if they are minor. If you find a puncture anywhere on your dog's body, consider the size of the other dog's mouth and look for the matching punctures from the other three canine teeth. If there is no apparent damage, you can likely monitor your dog at home. She may be sore for a day or two. If she has large wounds or damage to her legs, she needs a veterinarian.

Watch your dog very carefully around other dogs for the next month or so, especially the dog that she fought with. Preventing a fight is much better for everyone. Reward her for being calm around other dogs, and use high-value treats so that she associates other dogs with good things instead of thinking about the fight. If your dog starts to tense up around another dog, remove her from the situation.

If fights become a regular occurrence, or if they escalate in intensity, consult with a veterinary behaviorist to come up with a behavioral modification plan to help your dog. ■

Cornell DogWatch

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Listen Up! Ear Infections

Follow-up is critical to achieving a cure

Ear infections are common in dogs, and they usually cause head shaking and scratching. Left untreated, they can progress to more worrisome painful conditions like middle/inner ear infection, aural hematoma, and end-stage ear disease, which requires surgical removal of the ear canal.

Signs of ear infection in dogs include scratching, digging, or rubbing at the ears, head shaking, redness, odor, and visible discharge in the ear canal.

Ask any veterinarian how often they see "check ears" on their appointment schedule and they will tell you it's a lot. "On average," says Daisy Maher Friedman, DVM, Cornell class of 2020 and an associate veterinarian at VCA Fairmount Animal Hospital in Syracuse, N.Y., "I see at least one case of otitis externa every day, whether it be a new case or a recheck exam."

William Miller VMD photo

The key to good ear care and a "cure" is compliance with treatment recommendations. If treatment isn't given, things can get very bad quickly, as seen in this abscess.

Ear Anatomy

The problem is that dog's ear is a warm, dark space with minimal air flow, a perfect place for infection. Add some natural ear wax as culture medium and it becomes a perfect little incubator for microorganisms to grow and multiply.

Certain breeds of dogs add fuel to the fire of the incubator concept with their long and/or heavy ears. Cocker Spaniels, Springer Spaniels, and Bassett Hounds are perfect examples. Other breeds grow hair deep in their ear canals, which collects debris and diminishes air flow. Examples include Poodles, Schnauzers, and Shih Tzu. These breeds may need their ear hair gently removed to open up and maintain healthy ear canals.

Dogs who swim regularly are prone to ear infections due to excess moisture in the ear canal making the environment more inviting to unwelcome microorganisms. These dogs should have their ears flushed regularly with a commercial veterinary ear cleanser as directed by your veterinarian.

Aside from these predispositions, the most common cause of ear infections in dogs is underlying allergies. Both food allergies and inhalant allergies (atopy) predispose dogs to ear infections. It makes sense, as the ear canals are lined with skin. The hallmark of allergies in dogs is normal, healthy-looking skin that seems to itch and becomes inflamed. When allergic inflammation affects the skin lining the ear canal, it cranks up the heat in the incubator, fanning the flames of infection.

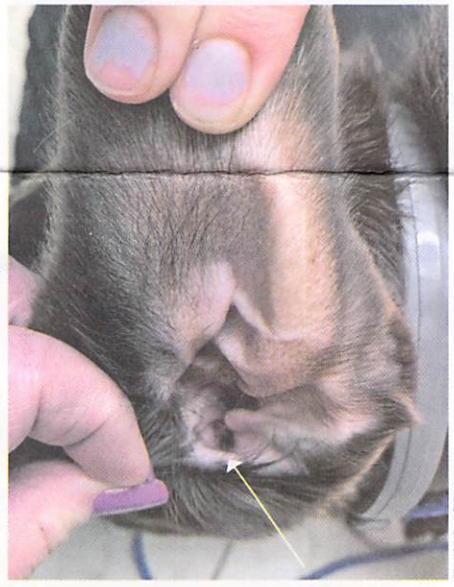
What this means is that you will never successfully manage the dog's ear infection unless you successfully control underlying allergies.

The Right Treatment

When you bring your dog in for an ear infection, your veterinarian will do a full physical exam, with special attention paid to the skin and ears. Based on exam findings, your dog's history, and your description of the degree of itchiness at home, a determination will be made as to whether an underlying allergy is present. An otoscopic exam will be performed. This allows your veterinarian to visually assess the ear canal in its entirety, including the ear drum (the tympanum).

Samples of any discharge in the ear canals will be taken for cytologic examination under a microscope. "A standard cytology is a fast and easy diagnostic tool that can differentiate microorganisms and target treatment accordingly," says Dr. Friedman. "Otic cytology is really important. We need to determine if there is or isn't a bacterial component to the infection. I often have cases where the infection is just yeast,

(continues on page 7)



Eileen Fatcheric DVM photo

It's important to understand where the ear canal opening is (see arrow), so topical medications get down into the ear canal where they are needed to clear the infection.

Complications of Unresolved Otitis Externa

Otitis media-interna: Extension of an external ear infection to the middle and inner ear is painful, harder to treat, and frequently results in neurologic impairment (head tilt, loss of balance).

Aural hematoma: Constant, prolonged head shaking causes small blood vessels within the pinna (ear flap) to repeatedly rupture, resulting in a painful, swollen, fluid-filled pinna. Treatment involves either surgical correction or placement of an indwelling drainage tube for several weeks.

End-stage otitis externa: Chronic inflammation, swelling, ulceration, and bleeding eventually results in complete closing off of the ear canal with scar tissue. The ear is still painful and infected, and virtually impossible to treat. The only recourse when this is allowed to happen is surgical ablation (removal) of the entire external ear canal, called total ear canal ablation (TECA).

The Benefits of DNA Testing

Learning about your dog's genome can be valuable for health and fun

It is trendy to send in a swab of your dog's cheek cells to determine his background, sort of a canine genealogy. But it's more than just for fun. Genetic testing can give you vital information about your dog's health. In addition, your dog's sample may also be used for research to help other dogs in the future. It's becoming a win-win for dogs and their futures.

Genetics 101

Every normal dog has 78 chromosomes. These are bands of genetic material (DNA) composed of nucleotides. There are four nucleotides: adenine, guanine, thymine, and cytosine. How these are arranged and paired determines your dog's genetic makeup. Each puppy receives half his genetic material from his dam and half from his sire.

For each gene, a dog has two copies, maternal and paternal. If the two copies match, it is considered "homozygous" for that gene. If they differ, then your dog is "heterozygous" for that gene.

Everyone loves a simple inheritance gene/trait where one gene controls a trait. In most cases, however, there are often all kinds of modifiers that influence whether that trait is expressed.

There are also "recessive" and "dominant" traits. For a recessive trait, your dog needs two copies (homozygous genes) for that trait to be expressed. If the trait is dominant, only one copy is needed (heterozygous genes).

GlobalP/iStock

In Labradors, completely different genes decide dark vs. yellow coats.

And, finally, some traits are "sex linked" and carried on either the X or the Y chromosome. Males have an X and a Y chromosome. Females have XX chromosomes. A male dog can get traits via the Y or via the X. A female will only show a trait if it comes on one or both of her X chromosomes. But don't get discouraged. The results are simpler.

Here's the Fun Stuff

Doing genetic testing to breakdown the breed makeup of your dog can be fun, though we're still in the early stages and some researchers question the accuracy. Experts also emphasize that you shouldn't feel doomed. If your Golden Retriever's genetic tests says she has a gene for muscle dystrophy, it doesn't guarantee she will get the disease.

However, if your mix has the MDR1 gene, you will now know to notify your veterinarian and keep him away from certain drugs. And this is important: If the testing shows your dog has a specific gene for any medical-related condition, discuss this with your veterinarian. Do not make assumptions.

There's more than health issues involved, though. Knowing your dog's genetic background also may help to predict some behaviors. For example, if your pup is 80% Border Collie, the odds are good that he will be very energetic, chase things, and circle.

Adam Boyko, PhD, associate professor of biomedical sciences at Cornell University's College of Veterinary Medicine and chief scientific officer for Embark Veterinary, tested his own dog. "My dog was a shelter mutt that I knew very little about, other than she was rescued from a hoarding situation. I was interested in not only knowing what she was possibly predisposed to in terms of health, but also anything about her background. The shelter listed her as terrier-Basenji mix, which sounded a bit too exotic to be true. For my dog, it really helped me get to know her so much better. She wasn't at risk for any known genetic conditions, but she also wasn't part Basenji and was another mix entirely. Breeders have long known the importance of genetic screening to avoid producing puppies affected with known genetic conditions, and newer tests looking genomewide are also invaluable to help maintain diversity and minimize inbreeding in litters. For individuals with pedigreed dogs, genetic health screening is helpful to ensure you've added a healthy, well-bred dog to your home."

Genetic testing can also be done to establish parentage. Some breeders will do a multi-sire litter and each puppy will need to have sire verified. Or there may be an "oops" where the breeder isn't 100% certain which male bred the female. A simple swab can determine the daddy.

Health Testing

But, truly, the best use of genetic testing is for health. Many diseases now have genetic markers that reveal if your dog will develop a genetic problem or is a carrier and might pass it on. With a one gene test, you can know if your dog has the potential to develop an illness. As explained in the beginning, however, many genetic problems have modifiers that influence whether that gene will be expressed.

Here are two ways to approach genetic testing: One is to do breed-specific tests. For example, if your dog is a Collie, you should have him screened for the MDR1 gene. This gene influences how your dog handles certain drugs, including commonly used ones for chemotherapy, diarrhea, and deworming. Dogs who have a mutation for this gene can become septic and even die if given some of those medications which other dogs handle easily.

The second way is to do a general screening for all potential disease-associated genes. That may give you some information you don't really need but would hopefully catch any problems you may not have considered.

"I would recommend a full genetic panel. Generally, the costs are on par or even less expensive than doing single-gene tests for all the breed-relevant health and trait conditions. Screening for all known genetic conditions also allows breeders to discover new mutations

within their breed that have historically not been problematic, if they crop up, and knowing the expected coefficient of inbreeding, or COI, of breeding pairs and confirming pedigree relationships is also valuable," says Dr. Boyko.

Breed-Specific Tests

There are many breed-specific tests for various genetic mutations. Some of these tests are only offered by the universities or companies that developed the test. For example, the University of Wisconsin has a test that looks at the risk of cranial cruciate ligament rupture—CCLR, where the ligament in the knee is injured or torn—in Labrador Retrievers.

This is not a simple one-gene test. Instead, the testing laboratory evaluates your dog's genome for a variety of genetic markers. The results are analyzed with bioinformatics to develop a disease risk for each individual dog. Certainly, environment will also play a part in the long-term risk. For example, if your dog is overweight and participating in high-impact sports, he's naturally at a higher risk, gene or no gene. Still, a heads up could help you plan your dog's lifestyle to minimize risks of this injury.

Even the same defect may have different genetic mutations behind it. PRA, progressive retinal atrophy, occurs in a wide variety of breeds. Some breeds share the same genetic defect that leads to blindness, while others have a mutation that ultimately leads to the same problem. Once a genetic mutation associated with a breed is found, researchers then look at other breeds known to have a similar health problem and see if the genetic defect matches.

Clear by Parentage

Some simple inheritance defects will show up on a dog's health clearances as "clear by parentage," which means that both parents had the genetic testing for a specific defect done and both were homozygous normal. Since neither parent had a copy of the defective gene, they could not pass it on. Therefore, all the puppies from that litter are "clear by parentage" and don't need to be tested themselves.

For the Future

As more is learned about inheritance and genetics, more testing will be available for our canine companions. Testing should help with planned breedings to minimize risks of illness. It can also alert people to potential health risks for their dog so they can take steps to modify their dog's lifestyle. Genetic findings in canine health can also be used for human health considerations in some cases.

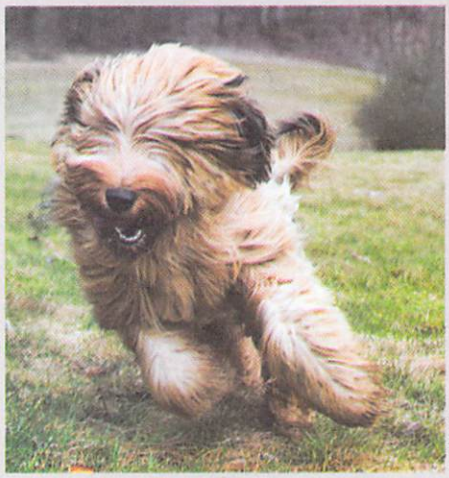
"Certainly, developing tests that can identify dogs with high risks for cancer will be hugely important, especially as our ability to screen and treat cancer in dogs continues to improve," says Dr. Boyko. "There are also cardiac diseases, orthopedic diseases, and autoimmune diseases where genetic screening has the potential to become quite important in the future. Eventually, I think, genetic screening will be invaluable for more than just assessing health risks and will be commonly used to assess behavioral predispositions and guide decisions for training as well as nutrition, supplements, and medications."

In addition to providing valuable health and trait information today, genetic testing helps support the future of a breed and the health of all dogs. A digital biobank where every dog is tested on a research-grade genotyping array allows the data to be freely downloaded by owners or breeders and shared with breed clubs and researchers to make future genetic discoveries. These genetic data, coupled with health data from surveys or veterinary records, put breeds in the best possible position for quickly identifying specific genetic defects when they crop up in a breed and enabling researchers to develop tests needed to reduce the impact and prevalence of these disorders.

A comprehensive listing of canine genetic testing laboratories and the tests they cover can be found at ofa.org/laboratories.■

The Briard

In an example of genetic information not only being used to diagnose or predict disease, Cornell University's College of Veterinary Medicine was involved in one of the first cases of using genetic therapy to treat an inherited disease. Briards can get young dog congenital stationary night blindness (impaired night vision) involves the RPE65 gene, which is also linked to an infant disease called Leber congenital amaurosis that causes blindness at birth. The Briards were successfully treated with gene therapy. Studies are underway to help human patients with their version of this problem.



Briards are bred to be herding dogs.

Why Test Your Purebred Dog?

If you have a purebred dog, you don't need a DNA test to learn his ancestry. However, DNA testing can pinpoint risk for some genetic health conditions. Many breeders test for inherited problems known to occur in a breed and share that information with you. For example, veterinarians now recommend MDR1 testing for any herding breed and some sighthounds. That gene covers sensitivity to certain drugs, which can be important in an emergency. Plus, any dog who is going to be bred should be tested for inherited problems known for his/her breed.

Cornell's Veterinary Biobank

The Cornell Veterinary Biobank is the most advanced library of veterinary biological materials. Samples such as DNA, blood, and tissue are all stored here to provide material for future research. Researchers are making strides in both human and animal health via studying these samples. The Biobank takes donations of samples of both normal and affected pets plus has ongoing studies that may benefit one of your pets. Go to vet.cornell.edu/departments/centers/cornell-veterinary-biobank to learn more.

Surviving Puppy Adolescence

Patience and kindness will get you through

Your adorable little puppy has grown taller and stronger, looking more like a real dog every day. But as she sheds her puppy fluff, she seems to have forgotten many of the good habits she used to have. She ignores you when you call her, throws tantrums when she's denied a treat, and barks for no apparent reason. What on earth happened to your perfect little puppy?

Your puppy is a teenager. Don't worry. This too shall pass.

Tatomm | iStock

When your previously perfect puppy unexpectedly reverts to old behaviors, that might be puppy adolescence.

Growing Brains

Most puppies hit adolescence around 6 months of age, but it can start later. During this period your puppy's body and brain are making the transition from puppy to adult dog. Different hormones are turning on and off to control growth and sexual maturity.

Lots of changes are occurring in the brain too. The prefrontal cortex is the region of the brain in charge of self-control, problem solving, and social interactions. Just like in human adolescents, the prefrontal cortex in the brain is still developing during this period. This is why adolescent puppies are often more impulsive than their adult counterparts and may overreact to situations. Their brains just haven't fully developed those skills yet. Your dog is figuring out how she fits in the world and refining the mental tools that she needs to navigate it.

Adolescence generally ends around 18 months of age but can go until 2 years old depending on the breed or dog. Patience resolves much of the wackiness that comes with a teenage puppy, but there are survival tactics as well.

Puppy Proofing

"Puppy-proofing your home is key in keeping the puppy safe and preventing damage to the house," says Pamela J. Perry, DVM, PhD, behavior resident at Cornell University's College of Veterinary Medicine. Puppies tend to explore the world with their mouths, and the growth of adolescence allows them to reach places and objects that they couldn't at 10 weeks old.

Think like a puppy as you walk through your house. What things look like fun to grab or chew on? Move tempting items to secure locations, such as a cabinet, and utilize baby gates to limit where your puppy can roam in the house so you can keep an eye on her.

"Provide puppies with lots of acceptable chew toys to keep them entertained," says Dr. Perry. If your puppy can satisfy her chewing instincts with a proper toy, she will be less likely to gnaw on a stolen shoe or cell phone case.

Crates are a fabulous tool to keep your canine teenager out of trouble. Even if she is perfectly housetrained, that immature prefrontal cortex might not be ready to nix the urge to rip open your couch cushions. Save yourself and your puppy some drama and put her in a crate when she can't be supervised.

Rules and Routines

"Keeping a routine helps puppies adapt to living with us. It also is useful to keep all interactions with puppies as consistent as possible so that they always know what to expect and how to behave," says Dr. Perry. "A simple way of doing so is to teach the puppy to sit before he gets anything he wants from you. This is the premise of leadership training, aka, the 'Learn to Earn' program or 'Nothing In Life Is Free' protocol."

Your puppy likely already knows to sit and wait at the door and to go into his crate before you put his food bowl down. As adolescence kicks in, he may challenge some of these rules. Don't panic. Calmly but firmly remind him what he is supposed to do and be consistent.

For example, if he tries to dart out the door every time it opens, set up a gate to prevent access and put him on a leash so you can prevent him from getting outside until he has sat and been released. Your naughty puppy isn't being willful. The idea that he could dart out the door instead of waiting for a release just popped into his head, so he tried it. Firm but compassionate guidance will remind him what is expected.

Your adolescent puppy may react strangely to exciting situations. Use a simple routine that he knows well such as a series of quick tricks to get his attention back on you and give him something that he can control. Ask him to sit or do a nose touch while quietly standing with you. Give him a treat and praise.

Physical Exercise

With that growing body comes increased energy and stamina. Physical exercise can help to take the edge off your adolescent dog's energy, plus is an opportunity for bonding. Take your dog for long walks or go swimming and allow time for free running in your yard.

Mental Stimulation

Exercising your puppy's mind will wear him out faster than any physical exercise. This is a great time to review the basic obedience skills he learned as a puppy, especially since his hormones and lack of self-control may have made him "forget." Experiment with shaping and clicker training to encourage him to problem solve and be creative. Scenting games, such as finding a hidden treat or toy, are another great way to work your dog's brain and allow him to engage in a natural dog activity.

Try to avoid tackling large, complex behaviors all at once. Remember that your puppy's brain is still developing, and that his hormones are doing crazy things too. Break a new trick or skill into small steps so that your dog can be successful. Even five minutes of training time a day can do wonders to help turn a crazy teenage menace into the sweet companion you know and love.

Remember: Adolescence is a time for patience. Your puppy is maturing, and the challenges of this time will pass (truly!). Use your house and training routines to provide structure and predictability. Be consistent with household rules. Set him up for success by crating him when unsupervised and puppy proofing your house. And if your dog does something truly crazy, try to laugh. After all, you were a teenager once too.■

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(Ear infections, continued from page 3)

which means antibiotic therapy is not warranted. Performing otic cytology helps prevent the overuse of antibiotics and the formation of resistant bacteria," says Dr. Friedman.

Once a full assessment has been performed, the next step is a thorough, deep flushing of the ear canal. This is a critical aspect of treatment for ear infections, as residual debris in the ear canal will interfere with the efficacy of topically applied treatments.

Treatment is usually topical drops or ointment. If your dog has underlying allergies not under treatment, a short course of oral steroid may be prescribed to get the inflammation under control.

The final step, which is imperative for successful treatment of ear infections in dogs, is the follow-up exam. Upon completion of the recommended course of treatment, your dog may seem comfortable, and the ears may look fine from the outside, but the infection may not be fully resolved. Incompletely resolved infection is one of the most common causes of chronic, seemingly recurring ear infections, second only to poorly managed underlying allergy.

Without a follow-up exam to confirm the infection is resolved (healed), there is no way to know if the next infection is a new infection or the original infection that never fully resolved. Don't put your dog on that roller coaster. Keep your follow-up appointment.

Once the infection has resolved, your veterinarian will likely recommend weekly cleansing of your dog's ear canals with a veterinary ear cleanser.

Ear infections are not only itchy and uncomfortable for your dog. If poorly managed, they can result in serious health issues and significant veterinary expense for you. The keys to success for this common problem are concurrent treatment of any underlying allergy, regular monitoring, and careful maintenance at home, and knowing when to see your veterinarian.■

Vision, Weight, and Aggression in a Shepherd

A slow, careful approach to each is the best way to start addressing this dog's challenges

Q Mika is 2 years old, and I am very concerned about his vision. We have had two veterinarians look at him and both say nothing is wrong. However, he can't see clearly. He barks at us and at movement or sounds that he appears not to identify. I have no idea how one would sight test a dog. I have had him follow a treat in my hand from like three feet and he does fine with back and forth motion.

Yet, from approximately 12 feet, he can only recognize us by sound when we speak to him. This is also making him aggressive to strangers as he is afraid because he can't see them clearly. I have had a blind dog, but when I was a child, and she was blind from only a few months old. She learned to use other senses and lived to 13.

I don't know how to help him. He is a big dog (130 lbs.) and very sweet to the groomer, veterinarian, kennel people, but he has known them since a small puppy. He needs help, and I need to know what to do. We keep him away from people. We live in a rural area, and he is in a double-fenced yard on a private street. No socialization is not an answer. Any suggestion on how to handle this would really be appreciated.

He also has a weight problem that makes no sense. I have another German Shepherd Dog (GSD) only a week younger. Ritter and Mika are fed identical amounts, and Mika is not a glutton. Some days he does not even finish his own food, yet alone Ritter's. I have had bloodwork and thyroid tests more than once and nothing. He gets no special treats. I am at my wit's end. I know there is something wrong with this dog, maybe even genetic. He is a purebred GSD, as is Ritter. Ritter is healthy and, other than being a terrible thief, has no issues.

I am glad we have Mika because we will see the problem through whatever, and he will not get dumped in a shelter or passed around home to home. But he has to have a good life, and I am very worried. Thank you for listening.

A Mika has three problems: obesity, aggression to strangers, and possibly visual defects.

Visual defects: Your veterinarians could find no reason for a visual problem by examining the eye and the inside of the eye with an ophthalmoscope. He apparently has no cataracts or corneal scar that might impair his vision and the ophthalmoscope would tell your veterinarians if the optic nerve is healthy.

If the dog were near-sighted, the ophthalmoscope would indicate how far the retina was from the cornea. Near-sighted dogs and people have grape-shaped eyes instead of the normal marble shape so the ophthalmoscope will require a higher reading to reach the retina in the back of that "grape."

You can test his vision yourself at home by rearranging the furniture in a dimly lit room. If he bumps into the furniture, he may have a vision problem, and you can discuss that with your vet and/or a board-certified ophthalmologist.

Obesity: As for his weight, not all metabolisms are the same. Surely you have friends who can eat donuts by the dozen and ice cream by the gallon and not get fat whereas others gain weight on a diet of celery. The same is true of dogs. Obesity can be remedied by decreasing the amount you feed. Try decreasing the amount by a quarter and adding another 15 minutes of exercise a day. You could also choose to feed a diet designed to help him lose weight (there are many commercial weight-loss foods on the market that reduce calories without sacrificing a properly balanced nutrient profile), but you might try the cheaper alternative first.

Aggression: As for the aggression, the best way to treat reactivity is to pair the object of his fear with good things. If you see a stranger, tell your dog, "Friend coming," and give him a treat before he has a chance to react. If he barks at scary things at home, ask him to sit and look at you and give him a treat or at least praise for being a good pet.

Aggression to strangers and barking at strange sounds is probably fear-based aggression, a problem that is becoming common in German Shepherds. ■

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The American Kennel Club calls the German Shepherd Dog "courageous, confident, smart." GSDs are large dogs, largely considered the best dog for police work and training. The breed was developed in the late 1800s in Germany as a herding dog.

Do You Have a Behavior Concern?

Send your behavior questions to Cornell's renowned behavior expert Katherine Houpt, VMD, Ph.D., shown here with Yuki, her West Highland White Terrier. Email to dogwatcheditor@cornell.edu or send by regular mail to DogWatch, 535 Connecticut Ave., Norwalk, CT 06854-1713.

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