

THIS JUST IN

Injuries Walking Dogs

Over 5% involved a traumatic brain injury

A study from researchers at Johns Hopkins, published in *Medicine & Science in Sports & Exercise*, issues a warning that “dog walking is associated with a considerable and rising injury burden.” The researchers added that, “Dog owners should be informed of this injury potential and advised on risk-reduction strategies.”

The researchers used the National Electronic Injury Surveillance System database to identify adults who were injured walking dogs on leashes in the United States who ended up at an emergency department from 2001 to 2020. Cases were estimated at 422,659.

Women accounted for 75% of the cases, and 47% of the patients were 40 to 64 years old. The most common injuries were in the upper extremity (51%). The most common cause was being pulled or tripped by the leash (55%).

The most common injuries were:

- Finger fracture 6.9%
- Traumatic brain injury 5.6%
- Shoulder sprain/strain 5.1%

The goal of the researchers is to make people aware of the incidence of injuries. We add to that walking a dog who is constantly pulling is not fun or safe for either of you. If you’re having trouble, contact a Fear-Free Certified dog trainer near you for training help. ■

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5 Things: Pet Insurance

Be sure you’re covered without limits where needed

Anyone who says it’s smarter to set aside the money you would spend on insurance premiums in a dedicated savings account for vet care is a dinosaur. Emergency surgery can run as high as \$5,000. Chemotherapy costs thousands. Even everyday expenses like dental surgery can cost \$2,500 or more.

Whole Dog Journal editor Nancy Kerns says her dog Otto needs expensive medications and frequent radiological monitoring for abnormal growths. In 2022, Nancy says she paid \$3,530.90 in premiums, deductible, and her 10% co-insurance. But she saved \$1,610.10 by having him insured.

According to the North American Pet Health Insurance Association 2023 State of the Industry Report, the average accident and illness premium for dogs is \$640.04 per year, or \$53.34 per month.

Not bad, is it? Let’s look at a few things to consider in choosing an insurer.

1 Age and Breed Matter. Insure your puppy or dog as soon as possible. The older the dog, the more the insurance costs, and some companies only insure dogs up to a certain age. Breed can affect premiums, too. The Golden Retriever, for example, has a known high incidence of cancer.

2 Read the Entire Policy. Download a sample of the insurance policy and read it, especially exclusions and limits. If you cannot download a copy, email the company and request one. If they refuse to send one, move on. If you have questions, email them so you get a written response.

3 Exclusions. Congenital/hereditary diseases are usually excluded, which may be OK for you, but it’s up to you to consider the risk. For example, hip dysplasia is hereditary, and larger breeds are more prone. Be wary, too, of sticky-wicket worded exclusions, like: “If your pet has undiagnosed masses prior to the end of the waiting period, *any mass or*



Insure your dog while he’s a puppy, but pick a policy that fits your individual dog. Watch limits, exclusions, and vague wording in the policy.

condition where a mass is a clinical sign is not covered, including cancer.” Email the company to clarify unclear wording.

4 Limits. An annual limit on your policy, for example the policy covers everything till you reach \$5,000, will cost you less in premiums, but it might leave you with heartache. Sure, most dogs do not reach policy limits, but what if your dog gets cancer and you reach your \$5,000 limit in July? And he still needs treatments? Choose unlimited coverage on everything. Save money on premiums with a higher deductible and co-insurance. Skip riders you don’t need.

5 Continued Coverage. Be sure the policy states coverage continues even if your dog becomes chronically ill. Be wary of provisions that state they can cancel if your dog contracts a chronic disease, like diabetes, or that they only pay for that disease for one year.

Research policies carefully. Pay your premiums on time and do all health maintenance that is required, like vaccinations, dental cleanings, and annual visits. Giving your insurer an out for not covering something is just throwing your money away. ■

Hot Spots: You Need to Be Proactive

Three important considerations for home hot-spot care

Warm weather often causes more hot spots. Allergies, external parasites, ear infections (often caused by wet ears from swimming), and any matted areas will hold moisture next to the skin and promote infections and sores. Anal gland infections can stimulate licking and chewing that leads to hot spots, too. If you catch it early enough, you can treat a small hot spot at home and prevent it from reaching a level that needs veterinary intervention with these three steps:

- 1. Stop the licking.** Use an Elizabethan collar or another type of collar, wrap, or surgical suit that stops the dog from getting at the areas. One of the soft “donut” collars will work if it keeps the area safe from your dog’s tongue. Dogs are their own worst enemies when it comes to these sores as licking and chewing simply increase inflammation, spread the sore area, and delay healing.
- 2. Clip the hair.** Dogs with long coats may benefit from having the area clipped so the hairs don’t get trapped in the ooze that comes from the sore. If there is minimal ooze, this step can be skipped, although even trimming long hairs from around the sore with scissors helps in the care and healing. Hairs touching the inflamed area stimulate more licking and chewing.
- 3. Timing is critical.** If the sore is over 24 hours old, infection is likely and a trip to the veterinarian is in order. If the spot is new and the dog doesn’t have a history of recurrent hotspots, some home remedies might work. But, be careful. These lesions are painful. Gently touch the area and watch the dog for signs of discomfort. If it obviously hurts, stop because you may get bitten. ■

Coat Color Changes May Indicate Illness

An adult dog’s coat should remain consistent

Puppies change coat color as they mature into adults, and old dogs usually go gray, especially around the muzzle, just like we do. But, otherwise, your dog’s coat color should remain consistent throughout his life.

A dog’s coat is an indicator of his health. If it’s changing for no known reason—new shampoo, sun bleaching, old age—it warrants a trip to the veterinarian. With today’s bountiful balanced dog foods, nutrition is rarely a problem, unless the dog has problems with the ingestion, absorption, or distribution of the nutrients, especially trace minerals.

Otherwise, color changes are more likely due to a health problem like skin disorders (flea allergies and mange), hormonal disorders like Cushing’s disease and hypothyroidism, or cancer.

Endocrine disease, especially hypothyroidism and the disorders associated with abnormal sex hormone production, can alter hair color either because the hair isn’t growing as fast and is subject to sun bleaching or because the mechanism whereby the pigment is transferred to the growing hair is abnormal.

Cushing’s may cause various coat changes, and some dogs have temperature-sensitive melanocytes. With these dogs, if the exposed area is cold, it becomes lighter-colored. If warmed, it returns to its normal dark color or may even become darker than normal.

If the color change is due to a disease, resolution of the disease will usually resolve the hair color issue. ■



Graying is normal as a dog ages, but other color changes should be checked out.

Cornell DogWatch

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Internal Injury from Trauma

This injury may allow your dog's organs to slide out of place, compromising heart and lung function

The force of being hit by a car or another hard-force trauma can cause a diaphragmatic hernia, which is a tear in the thin layer of muscle and fibrous tissue that acts as a barrier between the chest and the abdomen.

When this happens, abdominal organs such as the stomach, lobes of the liver, or the intestines may slip into the chest. This takes space away from the lungs, causing them to no longer be able to inflate fully, and can put pressure on the heart.

Diagnosis

Diagnosing a diaphragmatic hernia is generally done via radiology. Contrast material may be used to clarify questionable areas. Your veterinarian may become suspicious after palpating your dog's abdomen or auscultating his chest and hearing abnormal sounds. Follow up radiographs will be done before any surgery.

Treatment

Surgery is the only treatment. The rip in the diaphragm must be closed to restore the barrier between the chest and abdomen, with all organs where they properly belong. This is not usually an emergency surgery unless the stomach has been trapped in the chest area and distends with gas. It may then put so much pressure and take up so much space that the lungs can't expand normally, so breathing is a concern.

"There is some controversy about the best time to do a repair if a diaphragmatic hernia is diagnosed immediately after an automobile impact. It is often better to allow some time (several hours to a day or more) to treat potential severe shock first, and then repair the hernia when the patient is more stable," says James Flanders, DVM, emeritus associate professor, section of small animal surgery at Cornell University's College of Veterinary Medicine.

The American College of Veterinary Surgeons stresses that sometimes dogs will need a portion of an organ removed as well as a simple repair. Damaged liver lobes, the spleen, and portions of



No matter how careful we are, dogs can get lost and sometimes injured. When he's back home, a veterinary check is in order even if he seems OK.

intestines may need to be removed if their blood supply has been interrupted and there is tissue damage. Those cases have a higher risk.

If a traumatic hernia has gone undiagnosed, the displaced organs may have adhesions or attachments to the thoracic wall. In these cases, surgeries are more complicated due to potential bleeding complications.

"The anesthesia for diaphragmatic hernia repair has to be done carefully,"

Signs of Acute Injury

- ▶ Difficulty breathing
- ▶ Weakness
- ▶ Vomiting
- ▶ Bloat
- ▶ Possible shock, although some dogs show no signs of trouble

says Dr. Flanders. "Ventilatory support is always necessary. The lungs may have been traumatized if there was an automobile impact. There may also be incidental fractured ribs. Abdominal organs may be compressing the lungs and the diaphragm is no longer effective as a bellows to expand the lungs."

Bottom Line

Accidents happen. We always advise a veterinary checkup after an accident, even if your dog seems fine after such trauma. A diaphragmatic hernia is just one of the many reasons why this is so important. ■

Chronic Hernia

If your dog has a chronic diaphragmatic hernia, you may notice clinical signs that wax and wane. If the rupture has healed open, organs may periodically slip into the chest or slide back, which causes the off-and-on problems.

Congenital Hernias

One category of diaphragmatic hernias is peritoneopericardial diaphragmatic hernias (PPDH), which are congenital hernias due to a birth defect. The birth defect is an opening between the diaphragm and the sac around the heart. Causes are speculated to be genetic defects, an injury while in the uterus, or exposure to a toxic substance while in utero. Weimaraner dogs and Cocker Spaniels may have a genetic predisposition.

Some dogs with PPDH show no clinical signs and the hernia won't be detected unless your dog has thoracic and abdominal radiographs or ultrasounds. Others have respiratory or gastrointestinal problems. If liver functions are compromised, your dog might show neurologic problems related to the buildup of toxins in his system.

Dr. Flanders says congenital diaphragmatic hernias are most commonly the PPDH type where abdominal contents pass through a defect in the center of the diaphragm and enter the pericardial sac. "I have reduced all sorts of organs from around the heart including intestines, liver lobes, and even the entire spleen," says Dr. Flanders. "Dogs with congenital diaphragmatic hernias may not be diagnosed for many years when they are diagnosed serendipitously during chest X-rays for some other reason, or because clinical signs may finally become apparent due to entrapped intestines or a twisted liver lobe inside the hernia."

Does My Dog Need Anti-Anxiety Medication?

These drugs may help with quality of life and changing behavior patterns in some dogs

Some dogs truly need anti-anxiety meds to enable them to live normal lives. Others may only need support during times of high stress or short-term medication while you institute behavioral modification plans to manage anxiety in the long term.

How to Tell if He Needs Meds

“A dog who has moderate to severe fear or anxiety or shows symptoms frequently may be a candidate for medication to help reduce the anxiety and make him more receptive to behavior modification,” says Pamela J. Perry, DVM, PhD, behavior resident at Cornell University’s College of Veterinary Medicine.

Severe fear and anxiety are easy to spot if you know what to look for and often impact day-to-day life with the dog. For example, a dog with severe anxiety may destroy crates and furniture when left alone or jump through windows (open or not) during thunderstorms. A severely fearful dog may panic when a new person comes into the house or approaches them on a walk, or pace constantly at home.

These symptoms and more can be

annoying and exhausting for dog owners, forcing you to make drastic changes to your life to try to keep your dog calm. This is not a sustainable state of being for dog or human.

More moderate anxiety and symptoms that come and go can be trickier to spot. Signs of anxiety include:

- ▶ Ears pulled down/back
- ▶ Whites of the eyes showing
- ▶ Licking lips
- ▶ Shaking
- ▶ Panting
- ▶ Drooling
- ▶ Whining
- ▶ Excessive barking
- ▶ Destructive behaviors

These signs could appear only rarely, or they might be a regular occurrence for your dog. The frequency of stress and how strongly your dog reacts will help to determine if your dog needs medication or not.

Even mild anxiety can benefit from medication if it is happening to your dog a lot. Chronic stress, even at low levels, has been proven to have negative effects on the brain and body.

Causes of Anxiety

There are many causes of anxiety in dogs, and this stressed-out behavior is usually linked to other issues as well. Some common diagnoses that behavioral veterinarians report include:

- ▶ Separation anxiety, or the dog getting upset when left alone
- ▶ Sound sensitivity
- ▶ Territorial aggression or feeling like they need to defend their home
- ▶ Fear or aggression directed toward other dogs or toward people

For most of these cases, the most effective treatment plan will combine several approaches. Your veterinarian or a behaviorist will instruct you on ways to avoid your dog’s triggers, to manage outbursts when they occur, and to change your dog’s emotional response to triggers and upsetting situations over time.

These strategies take time to work, however. Giving an anxiety medication can be an excellent way to “take the edge off” for your dog either as part of your long-term treatment plan or simply to help during her re-training.

Medication Options

Most anxiety meds are referred to as being “maintenance” drugs that are given long-term or “situational” medications that are only given in specific contexts. Which type of medication your dog needs will depend on the nature of her anxiety and what causes it.

“Dogs who have moderate to severe and/or frequent anxiety benefit from a maintenance medication such as fluoxetine or another SSRI,” says Dr. Perry. “The most commonly used medication is fluoxetine, which has the most research supporting its use.”

You may know fluoxetine by the brand names Prozac or Sarafem. Fluoxetine is a selective serotonin reuptake inhibitor used to treat depression and panic disorders (among others) in humans.

Fluoxetine is FDA-approved to treat

Does My Dog Need Anxiety Meds?

Consider your answers to these questions:

- ▶ Does your dog show signs of stress or anxiety (excessive barking or at inappropriate times, eliminating in the house when alone, destructive behavior, or reacting negatively to people or other dogs)?
- ▶ Does your dog’s anxiety interfere with normal dog activities and behaviors?
- ▶ Does your dog show severe signs of fear, anxiety, or aggression?
- ▶ Does your dog show mild signs of anxiety, but a lot of the time?
- ▶ Do your dog’s symptoms interfere with your normal routine and activities?
- ▶ Does your dog react fearfully to loud noises, and fail to recover quickly?

If the answer to any of these questions is yes, your dog may benefit from anti-anxiety medications. Talk to your veterinarian about your dog’s behaviors, the events that cause them, and how often they happen. This will help your veterinarian decide if a medication will help and, if so, which one to try first.



Pamela Perry, DVM, is a behavior consultant for the Camuti Consultation Service at Cornell and senior veterinary behavior resident.

separation anxiety in dogs under the brand name Reconcile. Veterinarians also frequently use it to help with aggression and obsessive-compulsive behaviors in dogs.

Other medications used for maintenance therapy of anxiety in dogs include alprazolam, amitriptyline, buspirone, dexmedetomidine, and sertraline. All these medications take some time to build up in your dog's system and create change, so be patient. This is also why these medications need to be given continuously. Skipping a couple days a week will make the drug less effective for your dog.

But these long-term medications aren't the right fit for every dog. "For infrequent and predictable anxiety such as when traveling, a situational medication may be warranted," says Dr. Perry. "Commonly used as-needed medications include clonidine and trazodone." These drugs are shorter acting but start to work much more quickly, making them a good fit for dogs who get stressed out in specific situations that you can predict.

Another situational anxiety medication that is being used is the dexmedetomidine gel Sileo. This product is applied to the dog's gums to absorb in and quickly relieve symptoms of noise sensitivity for dogs who are afraid of thunder or fireworks.

How Quickly They Work

How quickly you see results will vary based on the medication that your dog is receiving.

"For maintenance medications such as fluoxetine, benefits may take up to 4-6 weeks to be seen," says Dr. Perry. This may seem like an eternity for owners of dogs with severe anxiety. Don't worry, your veterinarian will help you out with other medications and strategies to keep your dog calm in the short term while the maintenance medication is building up.

"For situational or give-as-needed medications, the clinical effects usually are evident within 1-2 hours," says Dr. Perry. For the best results, you will want to give the medication BEFORE your dog experiences a stressful event. For example, if your dog panics in the car, give the medication (such as trazodone) about an hour before you load her up. This allows the medication to be fully absorbed when your dog most needs it.

Figuring out the timing for storms, fireworks, and unexpected visitors can

be a bit more challenging. Try to give the medication an hour or two before a storm is supposed to hit, and before any scheduled fireworks.

Always follow the dosing instructions on your dog's medication label. Stopping medications suddenly or doubling up doses can be harmful to your dog and may make behavioral issues worse.

Anxiety Meds Aren't a Silver Bullet

While anxiety medications can make a huge difference for many dogs and the people who love them, they often are not totally effective by themselves.

Stress and anxiety are complex issues, and behavioral modification and management strategies are almost always necessary to completely alleviate anxiety or other behavioral issues. The exact training and management strategies that you use will depend on your dog's specific behavioral issues and what triggers the undesirable behaviors.

Behavioral modification takes time—weeks to months. It is a long process, but worth the effort. Behavioral modification strategies include:

- ▶ Crate training
- ▶ Teaching the dog to be calm while you are out of sight, gradually increasing the duration of time
- ▶ Changing how your dog responds to signs that you are leaving the house
- ▶ Conditioning the dog to no longer fear a stressor at a distance, gradually moving closer over weeks to months
- ▶ Conditioning the dog to expect something positive, such as treats or a toy, when a trigger is present

Management strategies can be implemented immediately and are all about avoiding stressful situations and keeping your dog safe. These can include:

- ▶ Crate training
- ▶ Walking your dog at times when there are few people/dogs out
- ▶ Crossing the street or turning around when you encounter a person or dog that might trigger your dog's anxiety
- ▶ Not having guests over, or putting your dog in a back room with chew toys when you have company
- ▶ Hiring a dog walker to let your dog out and keep her company during the workday

Be Patient

Like humans, different dogs can respond to different medications, well, differently. Even if one medication doesn't help your dog or causes side effects, another one may be the perfect solution. You need to allow the time to figure it out.

Some dogs may benefit most from taking multiple medications—maybe a maintenance medication that she gets every day, with a situational drug that she only gets during really stressful events like thunderstorms.

As you work through a behavioral modification plan, you may be able to gradually decrease your dog's medication dose or even wean her off it entirely. Fear-free training techniques can help build your dog's confidence.

This will be an iterative process, but with patience and persistence you can find the right balance for your dog. ■



A dog's eyes and body position can be very telling when it comes to assessing fear and/or anxiety.

Irma Medvedeva/stock

The Rise of Fungal Pneumonia

Unfortunately, the increasing number of cases may be an effect of global warming

Fungal disease is something we are likely to see more of as our planet continues to warm. In dogs, fungi typically cause infection in the skin, eyes, nose, bones, and lungs. When fungi infect the lungs, fungal pneumonia is the result. The prognosis depends heavily on which fungus and how quickly the disease is diagnosed.

Pneumonia is inflammation of the lungs resulting in fluid accumulation in the tiny air sacs called alveoli.

Dogs can get pneumonia for a multitude of reasons. The most common cause of pneumonia in dogs is bacterial infection, either primary or secondary to aspiration. Other causes include viruses, parasites, toxic inhalation (smoke and/or chemical), and fungi.

“Fungal pneumonia is common in dogs in certain regions and uncommon to rare outside of those areas,” says Patrick Carney, DVM, PhD, assistant professor, community practice service, Cornell University’s College of Veterinary Medicine. “In the United States, the major river valleys and the Southwest

are where infections are most likely to be seen.”

Veterinarians who practice in endemic areas are typically aware of the possibility of fungal pneumonia and well-versed in its treatment. If you live outside these areas, but have traveled to them with your dog, alert your local veterinarian if your dog is showing signs of pneumonia.

Signs of Pneumonia

- ▶ Lethargy
- ▶ Loss of appetite
- ▶ Exercise intolerance
- ▶ Unwillingness to exercise
- ▶ Difficulty breathing

Diagnosis

Thoracic radiographs (chest x-rays) are the first-line diagnostic test for pneumonia, but interpretation of the radiographs can be tricky.

“Thoracic radiographs alone are not diagnostic for fungal pneumonia,” says Dr. Carney. “A diffuse ‘miliary’ (looks like lots of tiny seeds or beads in the lungs) is the classic appearance, but other diseases can share that appearance (e.g., certain cancers, mycoplasmal pneumonia). Additionally, some fungal pneumonias can take on very different appearances, sometimes showing up as masses or consolidated lung lobes.”

“Appropriate travel/geographical history and radiographs are a great start, but should be accompanied by a more definitive diagnostic,” says Dr. Carney. “Sometimes the organism can be found in lung washes (endotracheal/transtracheal/bronchoalveolar lavage), but most practitioners rely on blood or urine tests.”

One reason for this may be that blood and urine samples are easily obtained in the clinic setting. Not all general practitioners have the skill set or the equipment necessary for performing lung washes, which means the dog may be referred to a specialty center. These tests are more invasive and require deep sedation or light anesthesia of the patient, things many pet owners prefer to avoid if possible.

“The fungal organisms found in the major river valleys are usually best identified by a urine enzyme immunoassay (EIA); the ones found

in the Southwest are usually best identified by serum testing (EIA, with or without confirmation via agar gel immunodiffusion),” says Dr. Carney. “If the dog has other organ involvement, that sometimes points toward a particular organism and might offer another opportunity to find the organism on aspirate or biopsies.”

Treatments

“Fungal pneumonias usually require many weeks to months of treatment,” says Dr. Carney.

Monitoring during treatment is important, both to assess healing in the lungs (thoracic radiographs) and to check for drug-related organ toxicity, especially in the liver (chemistry screen blood test).

Antifungal medications like fluconazole, ketoconazole, and itraconazole are necessary to kill the fungal organisms. These are administered by mouth. Other medications such as appetite stimulants and non-steroidal anti-inflammatory drugs (NSAIDs) for pain and inflammation may be prescribed. In the early stages for dogs with severe disease, hospitalization may be required for supportive care including intravenous fluids and oxygen therapy.

“Prognosis is generally fair to good as long as other organs are not involved,” says Dr. Carney. “Disease that has spread from the lungs to other parts of the body requires more aggressive and prolonged treatments, and the prognosis is often much poorer.”

Bottom Line

Fungal pneumonia in dogs is predicted to become increasingly common as our planet continues to warm. Treatment for fungal pneumonia caught early, properly diagnosed, and appropriately treated is often successful. The hardest part can be getting to the diagnosis quickly. ■



The infection is most common in the Southwest and around major river valleys.



Patrick Carney, DVM, PhD, is an assistant professor, community practice service, at Cornell University’s College of Veterinary Medicine.

Zinc-Responsive Dermatitis

In its early stages, this chronic skin disease is easily mistaken for other skin problems

If you've ever had a dog with a chronic skin disorder, you know how frustrating it can be. It's even more difficult when you've done everything your veterinarian said but still no progress. Granted, some chronic skin diseases can be difficult to manage, but when there's no improvement you may start to wonder if we missed something or even if the diagnosis is correct. That's perfectly understandable, and your veterinarian feels the same way.

Zinc-responsive dermatosis (ZRD) is a dermatologic disorder that can resemble other things when it first starts, and it is rare enough that it may not be on your veterinarian's radar right out of the gate. It is mostly seen in Siberian Huskies and Alaskan Malamutes, with Boston Terriers, Bull Terriers, Pharaoh Hounds, and Samoyeds occasionally affected. But any dog fed the wrong food can get it.

In its early stages, ZRD may be mistaken as mange, fungal infection, or bacterial folliculitis (either primary or secondary to allergies). As ZRD progresses, the lesions can mimic those of autoimmune skin diseases like pemphigus and cutaneous lupus.

The Cause: Zinc Absorption

"Some dogs capable of absorbing zinc from the gut and on nutritionally balanced and complete diets still suffer



ZRD lesions may be red, sometimes itchy, with hair loss and scaly crusts.

from ZRD," says William Miller, VMD, board-certified veterinary dermatologist and Cornell professor emeritus of medicine. "It is theorized that affected individuals have higher physiologic requirements for zinc or have some partial zinc absorption blockade."

Zinc is a mineral important for many cellular functions, especially in rapidly dividing cells like those found in the skin. It's therefore no wonder that when zinc levels are insufficient, for whatever reason, the skin might suffer.

ZRD is believed to be an inherited problem in Huskies and Malamutes, but it can occur in any dog fed a poorly balanced diet. It's more than just diets deficient in zinc that cause ZRD, however. Diets and drinking water containing too much calcium, iron, or copper, as well as diets high in whole grains, seeds, nuts, and/or legumes can cause ZRD by interfering with zinc absorption from the gut.

ZRD Symptoms

"ZRD is a seborrheic condition seen in young dogs," says Dr. Miller. Dogs are usually between 1 and 3 years old. The lesions may be red, sometimes itchy, with hair loss and scaly crusts. Typically affected areas include:

- ▶ Bony areas of the face
- ▶ Surrounding the eyeball
- ▶ Elbows
- ▶ Paw pads
- ▶ Ears
- ▶ Lips
- ▶ Bony areas

Diagnosis

Because ZRD seems to look like other skin conditions, your veterinarian understandably may begin with a skin scraping, cytology, and fungal culture. If these are negative, a biopsy will be required to diagnose the ZRD.

"One of the histologic hallmarks of ZRD is excessive follicular parakeratosis (hair follicles get plugged up with keratin, a natural skin protein). The affected areas are thinly haired or hairless, and the keratin almost forms spires as it exits the hair follicle," says Dr. Miller.

Treatment

Once it's confirmed the dog is on a well-balanced, nutritionally complete diet, the treatment is oral zinc supplementation for life. While this sounds simple, it isn't.

Oral zinc supplements come in three different forms, each of which contains different percentages of elemental zinc. As such, making sure your dog is receiving the correct dose of zinc can be a mathematical nightmare for the veterinarian.

According to Dr. Miller, most dogs will respond to any of the three different forms of oral zinc. However, zinc in excessive amounts is a gastric irritant. The less well-absorbed forms of zinc require higher dosages, increasing the likelihood of gastrointestinal issues.

Zinc gluconate is the least well absorbed form, with zinc sulfate just a bit better. Zinc methionine is absorbed the best, meaning lower amounts are necessary, and making it the form recommended most often by veterinarians.

Some dogs require additional treatment with prednisone, a corticosteroid, to manage any associated itchiness. Prednisone also helps increase zinc absorption from the gut.

It can take several weeks to months on zinc supplementation for the skin to improve, but the prognosis is generally good, with most cases responding favorably to treatment.

There's a saying in medicine, "When you hear hoof beats, think horse, not zebra," for obvious reasons. However, if your dog is being treated for the most likely or most common disorder without the expected results, it might be time to start thinking zebra. Such is sometimes the case with ZRD in dogs. ■



Although ZRD is most often seen in particular breeds, like Huskies, any dog fed the wrong food also could experience it.

Water-Obsessed Black Lab

Adding a no-pull harness may help gain control

Thank you for being available to the *Cornell DogWatch* readers. My 2½-year-old black Labrador becomes uncontrollable when we get anywhere close to where I take her to swim. She is a well-behaved dog in general. She was released from the Guide Dog Foundation and had three months of professional training before being released for eating and swallowing objects she was not supposed to.

However, when we are a block or two away from the Long Island Sound, she starts to whine and pull on the leash. I have a secondary short loop on the leash and try to contain her by using that loop. The dog who always responds to treats cannot be distracted in this situation.

I have used a Gentle Leader and that makes her just a little bit more controllable. Any advice you can offer will be greatly appreciated.

Your tale reminds me of my late love's two dogs: one a Labrador; the other a German Shorthaired Pointer. They both loved to fetch, but if you threw the ball into the water, the Lab would rush into the water and the Pointer would stand in the shallows, shaking each wet paw like a cat. Your dog, like my friend's, has been genetically selected to love swimming and retrieving balls. The fact that she was dismissed from the Guide Dog Foundation indicates that she is not very biddable.

Your problem is common, judging by the number of no-pull harnesses in the catalogs that clutter my mailbox. Maybe a no-pull harness would help. The difference between an ordinary harness in which the leash attaches on the back and the no-pull harness is that in the latter case the leash attaches on the chest. Maybe the combination of the Gentle Leader and the No Pull harness would help, but you will need two hands

free. I won't recommend a prong collar because they hurt the dog.

Have you tried walking a yard or so and then tossing the ball behind you, so

she must stop, turn around and go away from the water to retrieve it? Having the ball in your hand may keep her attention on you rather than on the water ahead.

A wading pool at home might help reduce her motivation for the Atlantic because she can cool off in her backyard. Good luck and park close to the beach to help ward off elbow injuries to yourself. ■

FROM THE EDITOR-IN-CHIEF

Antibiotic Long-Term Use

Can a dog be on an antibiotic for the rest of her life?

I am a longtime subscriber, and the article in June 2023 indicates that long-term use of antibiotics can be problematic. My dog has inflammation of her gastrointestinal (GI) tract. She has been prescribed Tylan Powder (Tylosin Tartrate), 1/8 teaspoon, with every meal. Her eating has improved dramatically, and she has not had any vomiting since. The prescribing vet told me it is an antibiotic, and she should be on it the rest of her life.

Is long-term use indicated for this antibiotic? I don't understand why this treatment with an antibiotic is acceptable, but other times it isn't. When should we be OK with long-term treatment?

Microbial resistance is a real and very serious problem. Causes are many and include the type of antibiotic being used, giving an antibiotic when the disorder is not bacterial in origin, e.g., viral disease, using an inappropriate drug for the bacteria being targeted, inaccurate dosing (too low a dose or inappropriate dosing interval), and frequent repetitive use of the same drug.

Tylosin-responsive GI disease (TRD) is not completely understood, and its predominant signs of vomiting or diarrhea can be caused by many specific GI disorders like pancreatitis. Before long-term use of Tylosin is considered, the dog should have a complete and thorough examination with all the appropriate diagnostic testing. If that evaluation fails to identify a cause for the disease, a trial course of Tylosin often is ordered.

If there is a positive response, the drug is continued for an extended period and then discontinued to see if the signs recur. If they do, long-term, potentially lifelong, use can be considered. Could this lead to antibiotic resistance? Unfortunately, the answer is yes, but if nothing else helps the dog, there would appear to be no choice in its use.

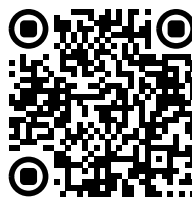
It is very important that the dog be monitored carefully by her veterinarian. With time, hopefully more specific treatments for TRD will be discovered, eliminating the need for the long-term use of Tylosin. ■

William H. Miller, VMD, is Editor-in-Chief of *Cornell DogWatch* and professor emeritus of medicine, section of behavior and dermatology. Send questions to dogwatcheditor@cornell.edu.



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 dogwatcheditor@cornell.edu or mail to DogWatch, 535 Connecticut Ave., Norwalk, CT 06854-1713.



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