

ANC

The Animal Neurology Center

APRIL 2026



A word from the owner

Neurophilia!

From the Owner, Animal Neurology Center

I've always suggested that neurology is the "sexiest specialty."

Why? Because at its core, it captures the very reason so many of us were drawn to veterinary medicine in the first place. Harken back to the stories of James Herriot; The allure wasn't techy medicine, it was in the quiet, almost magical ability to understand animals that couldn't speak to us. To touch, smell, hear, and see them— And then to connect the dots in a way that led to unexpected and often profound outcomes. This is the stuff television dramas were built on (Eat your heart out, Noah Wyle).

Modern medicine, however, has shifted that balance. The physical examination, once the cornerstone of clinical reasoning, has in many ways been overshadowed by advanced diagnostics. Palpating kidneys offer limited value compared to a renal panel. Auscultating the lungs is important, but is superseded by thoracic radiographs. Across much of medicine, function has taken a backseat to structure.

Except in Neurology

Neurology remains one of the last strongholds where the physical examination is not only relevant—it is indispensable. Yes, we have extraordinary tools at our disposal. At the ANC we are fortunate to work with perhaps the most advanced MRI technology available. But even the most sophisticated imaging only tells us about structure. The What without the Where.

There is no test that can replace watching a dog walk and determining whether it knows where its feet are. No scan that definitively tells us whether a patient can perceive a threat approaching its eye. These are questions of function—and they can only be answered through careful neurologic examination which leads to one of the most powerful tools in all of medicine: neurolocalization. The ability to determine where in the nervous system a problem exists because of the specific utility of each one of its parts. When the patient is jaundiced, any part of the liver could be the culprit since it all does the same thing. The nervous system lacks this redundancy and we squeeze out all of the value in that. That's the game, "Your dog has a problem between C6–T2 because of its short choppy gait in the front legs and long lopey gait in the back legs. And the game is fun!

Yet, despite this elegance, neurology has long carried a reputation for being intimidating—a phenomenon widely referred to as "neurophobia." First described in human medical education by Jozefowicz in 1994, neurophobia refers to the fear of neurology driven by difficulty translating basic neuroscience into clinical application.¹ Subsequent studies have consistently demonstrated that neurology is perceived as one of the most difficult specialties, with trainees reporting low confidence in both examination skills and clinical decision-making.² More recently, similar findings have been reported in veterinary education, where students cite limited comfort with neurologic examination and neurolocalization despite recognizing their importance.³



There are several consistent reasons why neurology, more than many other disciplines, feels intimidating:

- **Complex anatomy:** The nervous system is highly organized, with multiple pathways students are forced to memorize, but only some truly matter. Educational models often emphasize theory and pathways over practical, hands-on clinical application. Our extensive training is a deterrent for many
- **Lack of redundancy:** Unlike a heart murmur or increased thirst, neurologic signs are seen much less frequently and lack memory pattern reinforcement.
- **Training gaps:** Some students don't ever train in neurology prior to practice.
- **Unfamiliar language:** Terms such as ataxia, paresis, and proprioception can feel like a foreign dialect.
- **Perceived dependence on diagnostics:** There is a common belief that without MRI or advanced imaging, meaningful progress cannot be made.
- **Lack of support:** Neurologists can be difficult to reach because of our small numbers.

Can we twist the "phobia into philia"? I'm confident we can, but only with a foundational shift in the teaching paradigm. Neurology "CE" continues to be taught through the lens of a neurologist, "What do vets need to know prior to deciding on referral, when is referral more urgent, what can the neurologist do once referred and what can vets do if referral isn't an option"? How would that approach be received if the topic were skin allergic disease or liver enzyme elevation—probably not well.

We are actively creating a programmatic design for a primary neurology practitioner in the absence of specialty considerations. Neurology is not an all-or-nothing discipline reserved for referral centers; rather, it is a clinical framework that, when applied thoughtfully, brings clarity to complex cases and strengthens decision-making at every level of practice.

Perhaps most importantly, it reconnects us to the essence of clinical medicine—careful observation, thoughtful interpretation, and a deeper understanding of our patients.

At the Animal Neurology Center, education is not an extension of our mission—it is a core value. Our goal is to make neurology practical, actionable, and approachable, so that clinicians feel more confident and patients ultimately benefit from clearer, more informed care.

Next month, we will build on this foundation by discussing when neurologic cases can be managed in-house, when referral is appropriate, and how the gap between primary care clinicians and specialists is often much smaller than it may seem.



Fred Winger, VMD, MS, DACVIM (Neurology)

Owner / Neurologist / Neurosurgeon

1. [Jozefowicz RF. Neurophobia: the fear of neurology among medical students. Arch Neurol. 1994.](#)
2. [Abushouk AI et al. Curing neurophobia in medical schools: evidence-based strategies. Med Educ Online. 2016.](#)
3. [Murthy SB et al. Investigation of neurophobia among veterinary students. J Vet Med Educ. 2023.](#)

Featured Case of the Month: Vinny the Pittie

Vinny, a 4-year-old Pit Bull, presented to the Animal Neurology Center in severe distress. He arrived in lateral recumbency and was unable to rise. When I attempted to gently lift him, he cried out in pain and remained inconsolable. It was immediately evident that Vinny was suffering significantly, and equally clear how deeply his family was suffering with him.

Like many of the wonderful clients we are privileged to serve, Vinny's parents had rescued him. Their devotion to him was unmistakable, and it strengthened our determination to do everything possible to help restore their family's normalcy.

His neurologic examination was limited by the degree of pain, but several important findings stood out. Vinny was paralyzed in the pelvic limbs and had marked extension of the thoracic limbs, a pattern concerning for a lower cervical to upper thoracic spinal cord lesion. Initial radiographs showed a malformed spinous process of the fourth thoracic vertebra (Think the prominent dorsal spikes of a stegosaurus) and was certainly unusual in appearance. However, chronic developmental bony changes alone do not typically explain sudden onset pain and paralysis, so further imaging was needed.

MRI provided the answer. Vinny had a large compressive mass surrounding the spinal cord, reducing it to approximately 25% of its normal diameter. We then performed a CT scan for surgical planning to better define the surrounding bone anatomy and guide our approach.

Vinny was hospitalized overnight, and surgery was performed the following day to remove the mass and decompress the spinal cord. We suspect his pain was due both to the severe spinal cord compression and to the abnormal bony spike, which appeared to have weakened the adjacent process enough that it fractured.

His recovery was excellent. Vinny regained comfort and function, and the biopsy results confirmed our leading suspicion: multiple cartilaginous exostoses (MCE), a benign hereditary bone condition. Importantly, these lesions do not metastasize, and surgical removal is typically curative when complete excision is achieved.

The highlight of the case came at Vinny's recheck visit. He returned comfortable, mobile, and smizing (It's a Pit Bull thing-IYKYK). Watching him go from pain and paralysis to shared family joy again made this one of the most rewarding cases we have experienced in recent memory.



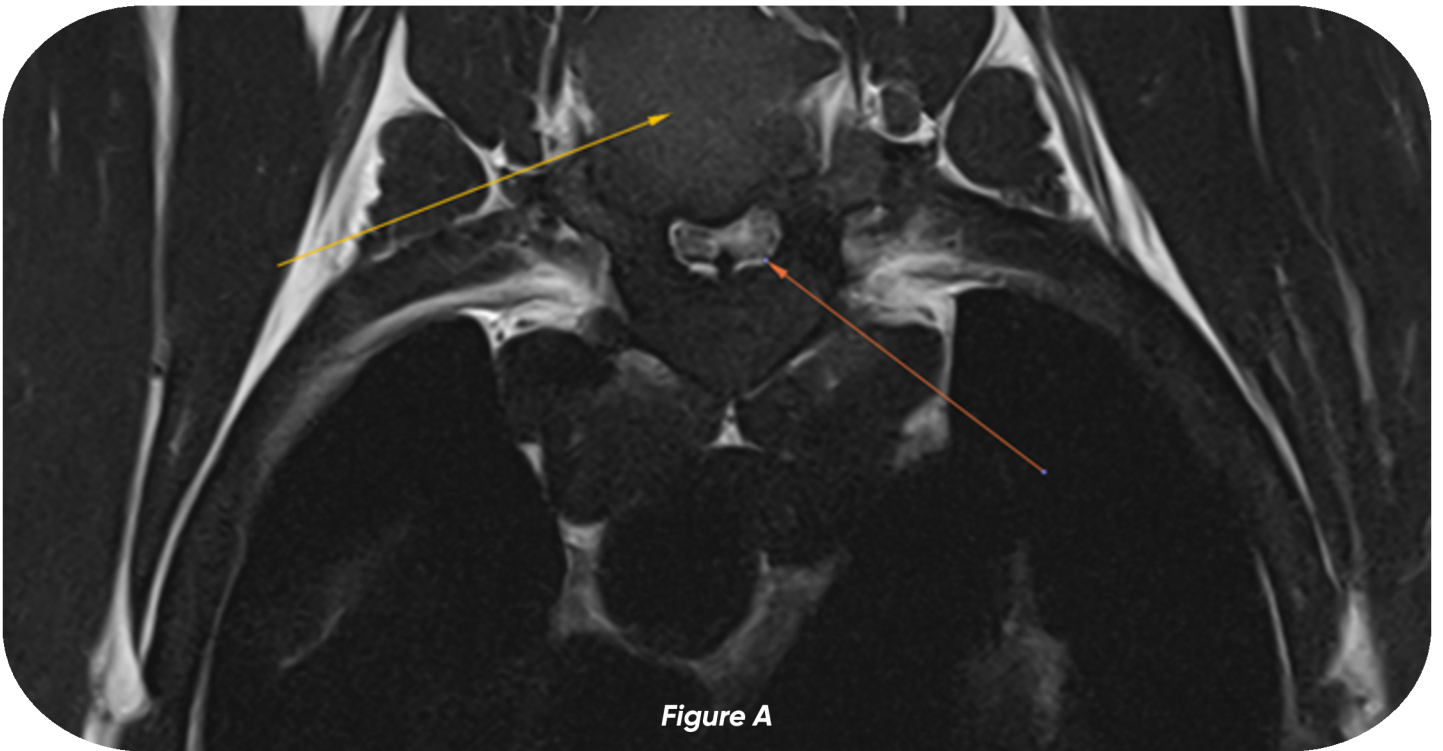


Figure A

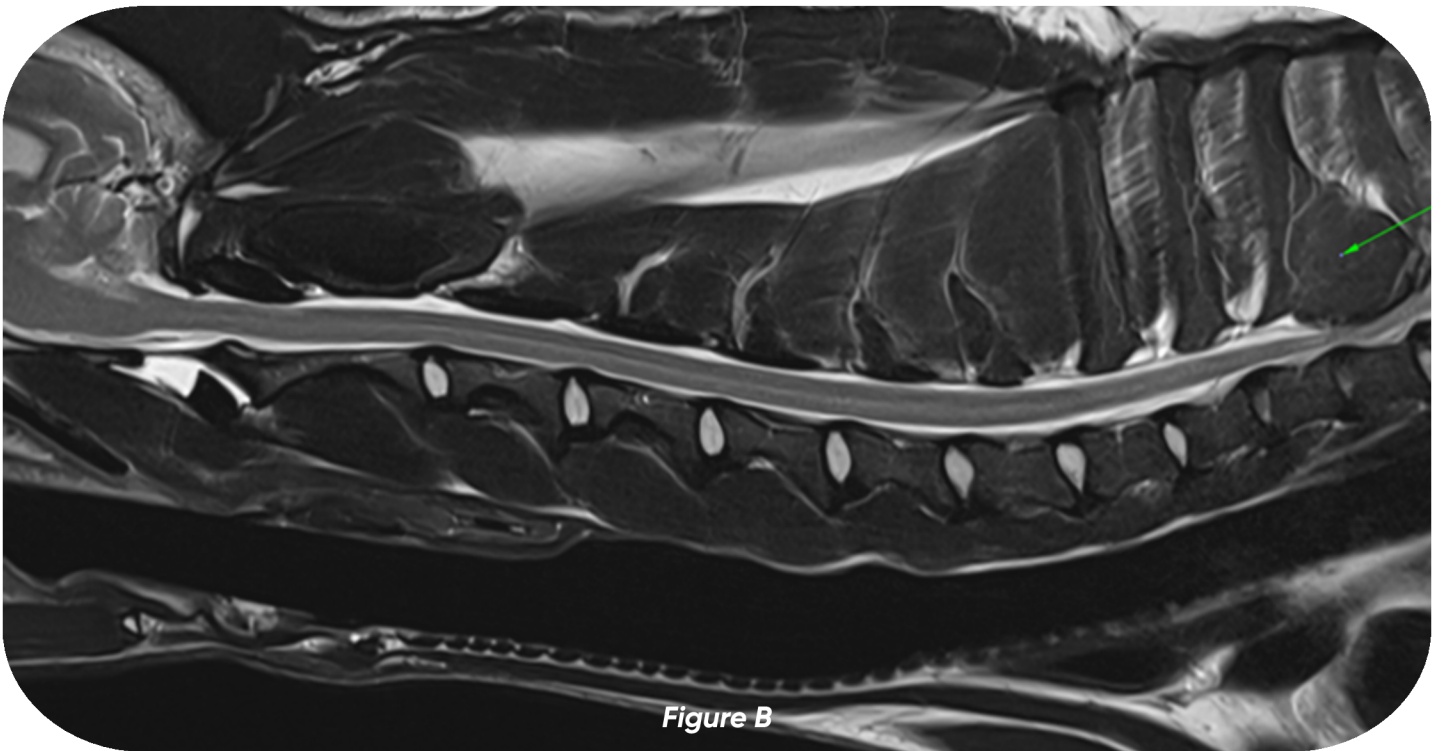


Figure B

MRI of Vinny's neck. This is a T2-weighted image, where fluid and fat are bright and tissues that do not have a lot of water are dark, such as air and bone.

On the sagittal (nose-to-tail) image, note the green arrow pointing to the dark, "bone-like" structure on the third thoracic vertebra. Figure B shows the transverse, or cross-sectional, view through that segment. The orange arrow points to the mass above the spinal cord. Note how the spinal cord is compressed, or "smooshed," by the mass and is also brighter than expected, suggesting inflammation.

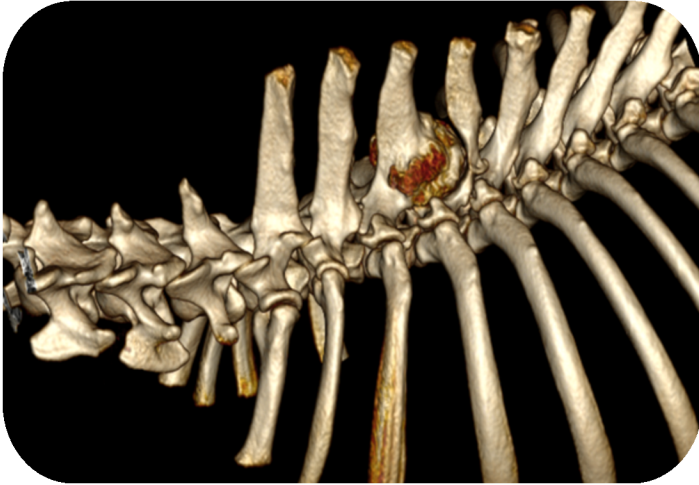


Figure C

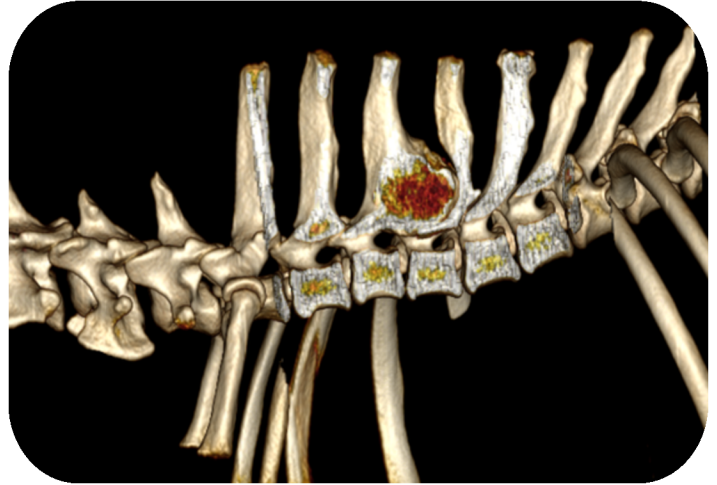


Figure D

Figure C is a 3D reconstruction of Vinny's spine. Note the red, bulbous mass on the back of the third thoracic vertebra and how it deforms the bone caudal to it (behind it). Figure D is the same reconstruction but with half the spine cut away to demonstrate how the mass deforms the spinal canal and impinges on its diameter.



Figure E



Figure F

Figures E and F are the same as Figures C and D but demonstrate the resection and improvement of spinal canal space post-surgery.

A note from Vinny's family:

"The team at The ANC far exceeded our expectations. Although we were nervous about Vinny's health, Dr. Winger and the staff went above and beyond to ease our concerns. From the thorough explanations to the top-notch facility, we could not be happier with the care we received.

We knew Vinny's procedure would be complicated, and we want to extend a special thank you to Dr. Winger. He is absolutely amazing and gave Vinny a chance we don't think many others would have. While his recovery hasn't always been easy, his progress has far exceeded what we thought was possible, and we are so happy he is doing so well today.

He is the heart and soul of our house with his big smile and even bigger heart.

We are just so thankful we still get to live this life with Vinny."

--Chelsea Cheatham



Scan or [click here](#) to watch more of Vinny's story!



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Team Spotlight: Ashley Stahlschmidt

This month, we are excited to spotlight Ashley Stahlschmidt and let you get to know one of the wonderful people who helps make ANC what it is.

Tell us your veterinary story.

"I have always been a lover of animals but what really drove me towards vet med was when my childhood dog was hit by a car. I felt helpless in that moment and a man who happened to be a retired veterinarian came to help. I realized that I wanted to know how to help in those situations and make the difference he did in my time of need."

It is easy to see how that experience stayed with her and helped shape the path she chose.

What do you love most about working at the ANC?

"The thing I love most about working at ANC is the people. They bring so much love, knowledge and care with every patient."

What type of work experiences or interactions bring you the most fulfillment?

"The work experiences that bring me the most joy and fulfillment is when we see patients at their worst coming in the doors but leave wagging their tails."

Those are the days that refill the tank.

If you weren't in the veterinary field, what would you do?

"If I wasn't in the vet field I would probably a back up singer."

Secret is, she's no backup. If you spend anytime in the OR with Ashley you know that she can multitask as an anesthetist while hitting every lyric and note.

What are your favorite activities outside of the ANC?

"Outside of work I love spending time with my family watching movies and playing game. We love to travel and can't get enough of time on the boat."

Do you have pets at home?

"I have 2 pets at home Edgar is my 4 year old pocket pitty who loves to cuddle and it also a bull in a china shop. Effie my 7 year old cattle dog mix. She is my lone wolf who likes to be alone but loves a good cuddle." A perfect balance of chaos and independence.

Final Thoughts

Ashley brings kindness, humor (lots of it), and heart to the team every day, and we are lucky to have her as part of the ANC family.



From the CE Lecture Hall: Lessons from a Zoo Vet

The ANC was proud to host St. Louis Zoo Veterinarian Dr. Michael Warshaw for our most recent monthly CE event: March Mimosas with a Zoo Vet!

Dr. Warshaw shared fascinating stories and real-life cases from the trenches of zoo vet medicine, highlighting how specialized care and advanced techniques are essential, whether you're working with exotic species or companion animals. It's a reminder of how much we share in our mission to provide the best care for all patients, regardless of species.

Here are three key takeaways from his presentation that apply to every veterinarian's practice.



Key Takeaways:

1. Preventive care and training dramatically reduce stress and improve outcomes

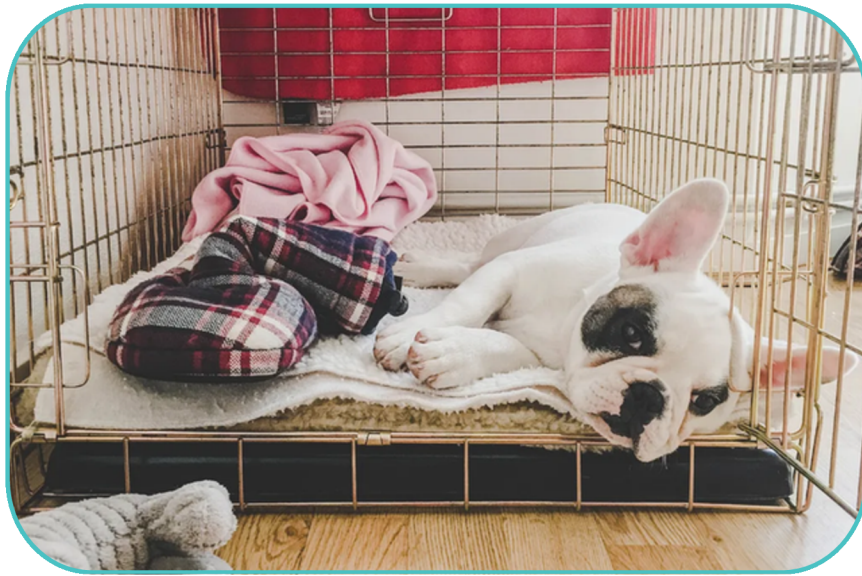
Zoo medicine reinforces the value of **preventive care paired with cooperative training**. Many animals are trained to voluntarily participate in exams, injections, and monitoring. This reduces the need for sedation or darting. This highlights an important takeaway for small animal and general practice: investing in **low-stress handling, client education, and early intervention** can significantly improve patient safety and clinical success.

2. Veterinary medicine is adaptable—but requires species-specific thinking

From fish CT scans to elephant anesthesia, zoo veterinarians must constantly adapt techniques, equipment, and protocols across species. The key lesson: even in general practice, we should avoid a "one-size-fits-all" mindset and instead lean into **species, breed, and individual variability** when it comes to anesthesia, diagnostics, and treatment plans.

3. Collaboration is essential to delivering high-level care

Zoo veterinarians regularly partner with specialists, universities, and local practitioners to manage complex cases and expand capabilities. This reinforces the importance of **building referral networks, consulting colleagues, and leveraging outside expertise**, whether you're in GP, ER, or specialty practice. High-quality care is often a team effort, not a solo endeavor.



🥰 In the Literature

Rethinking "Crate Rest" for Dogs with IVDD

Believe it or not, much of what we do in medicine is not built on high-level clinical evidence. Often, it is based on theory, experience, and traditions passed from one generation of doctors to the next. That is not necessarily a flaw—it is simply the reality of practicing medicine in fields where perfect data are limited.

Evidence-based medicine is something we should always strive toward. But if we only treated conditions where definitive studies existed, progress would stall. Instead, medicine advances by constantly refining best practices as new research confirms some assumptions and challenges others. The move from evidence based to guideline based.¹

One of the most longstanding examples in veterinary neurology is the recommendation of strict crate rest for dogs recovering from intervertebral disc disease (IVDD).

What Is IVDD?

IVDD is especially common in chondrodystrophic breeds such as Dachshund, French Bulldog, Beagle, and others predisposed to premature disc degeneration.

"Chondrodystrophy" literally refers to abnormal cartilage development. In these breeds, the normally gelatinous center of the disc (the **nucleus pulposus**) degenerates early in life. Over time, that disc loses its shock-absorbing capacity and may rupture through the outer shell (the **annulus fibrosus**), sending disc material upward into the spinal canal.

The result can be:

- Severe back or neck pain
- Loss of coordination
- Weakness
- Paralysis

Treatment may involve surgical decompression or conservative management depending on neurological status, severity, finances, and family goals.

The Dogma of Crate Rest

For decades, one of the most common at-home recommendations after IVDD has been **6 weeks of strict crate rest**—limited movement outside of bathroom breaks.

The logic is understandable: if a dog moves too much, perhaps more disc material could extrude and worsen spinal cord compression.

But while logical, logic alone is not evidence. We also have to ask: **what are the costs of prolonged confinement?**

- Muscle atrophy
- Reduced flexibility
- Deconditioning
- Anxiety and frustration
- Delayed return to function
- Reduced opportunity for neuroplastic recovery
- Barking Weiner dogs driving their pet parents CRAZY!

Have you or a loved one had back surgery? Did they lay in bed for 6 weeks? NO! They are up and moving—And there is significant evidence to support that post-operative care. Are our pets all that different?



What Does the Evidence Say?

Believe it or not, there is NO evidence to support the value of crate rest! In fact, an oft forgotten study evaluating conservative treatment of thoracolumbar disc disease found **no correlation between the duration of cage rest and outcome or quality of life.**²

That does not prove crate rest is harmful—but it certainly challenges the certainty with which it has often been prescribed.

Newer Lifestyle Data Raise More Questions

A recent large-scale JAVMA study examining **43,517 companion dogs in the United States** evaluated demographic and lifestyle factors associated with owner-reported IVDD.³

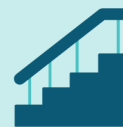
Among the findings, lifestyle factors associated with reduced odds of owner-reported IVDD included:



Higher daily active time



Feeding a commercial diet



Regular use of stairs

Yes—you read that correctly. Regular staircase use was associated with lower, not higher, odds of IVDD.

What This Means at ANC

At the Animal Neurology Center, we do not promote reflexive, rigid crate rest for every IVDD patient.

Instead, we favor individualized recovery plans that often include:

- **Controlled leash walks**
- **Frequent low-impact activity**
- **Structured rehabilitation principles**
- **Pain control**

That does not mean we want a recovering French Bulldog launching off the couch or a Dachshund hurdling furniture. It DOES mean recovery is usually better served by thoughtful movement than blanket immobilization.

The Bigger Lesson

Sometimes medicine must rely on experience. But when evidence arrives, we should be willing to adapt.

The goal is not to defend tradition. The goal is to help dogs walk better, feel better, and live better.



1. [Tricoci P, Allen JM, Kramer JM, Califf RM, Smith SC Jr. Scientific evidence underlying the American College of Cardiology/American Heart Association clinical practice guidelines. JAMA. 2009;301\(8\):831–841.](#)

2. [Levine JM, et al. Evaluation of the success of medical management for presumptive thoracolumbar intervertebral disk herniation in dogs. Vet Surg. 2007;36\(5\):482–491.](#)

3. [Demographic and lifestyle characteristics impact lifetime prevalence of owner-reported intervertebral disc disease. J Am Vet Med Assoc. 2025;263\(5\):1–9.](#)



Education & Events Calendar

Upcoming ANC Events

- **Thursday, May 21, 6:30 PM** – What a Pain in the Neck | Speaker: Fred Winger | [Register Here](#)
- **June Event:** Details coming soon!
- **Thursday, July 9, 2026, 6:30 PM** – Perioperative Management of the Brachycephalic Patient | Speaker: Dr. Jill Luther | [Register Here](#)

RSVP & SUBSCRIBE TO OUR EVENT CALENDAR!



WHERE YOU'LL FIND ANC DOCTORS SPEAKING

• **April 29 – May 1, 2026 – Siemens Innovation Summit-Nashville TN**

“Fur Fields and Paw Pulses: Inside Veterinary Neuroimaging”. Dr. Winger teaches human imaging technologists about the challenges faced in veterinary imaging.

• **May 29, 2026 – Fetch by DVM 360-Nashville, TN**

Dr. Winger speaks on a variety of neurologic topics. Our team will be onsite with our booth showcasing the ANC.

• **June 11-14, 2026 – ACVIM Forum-Seattle, WA**

Dr. Winger will present a keynote lecture on Artificial Intelligence and its impact on Veterinary MRI.

• **June 27 - July 4, 2026 – International Veterinary Seminars- FIJI (YES FIJI)!!!**

Dr. Winger speaks on all things neurology in between Mai Tais and Scuba dives- Don't miss it!

• **June 18, 2026 – MoVMA Southwest meeting-Springfield, MO**

Join Dr. Winger and MoVMA at Prima's Mexican Kitchen for dinner and seizure CE! Registration coming soon.

• **June 23, 2026 – MoVMA East Central meeting-Hermann, MO**

Registration and more details coming soon.

