



Noise Phobia in Dogs

with Karen L. Overall, MA, VMD, PhD, DACVB, CAAB

The following interview was originally released by the AKC Canine Health Foundation as a podcast on June 19, 2014. If you prefer to listen to the interview, the podcast is available at www.akcchf.org/news-events/multimedia/podcasts/noise-phobia-in-dogs.

In this interview, Dr. Karen Overall discusses an issue of major importance to many dog owners: noise phobia in dogs. Dr. Overall received her VMD from the University of Pennsylvania, School of Veterinary Medicine and PhD in Zoology from the University of Wisconsin – Madison. She completed a residency in Behavioral Medicine at Penn and is a Diplomate of the American College of Veterinary Behavior (ACVB) and is certified by the Animal Behavior Society (ABS) as an Applied Animal Behaviorist. Dr. Overall's clinical work is focused on the humane treatment of troubled pets and their distressed people. Her research has 2 main foci, first to understanding the neurobiology and genetics of canine behavior and canine cognition, and second, the development of natural genetic and behavioral canine models for human psychiatric illness, particularly those involving anxiety, panic, and aggression.

CHF: Noise phobia is a common behavioral problem that many owners face. Is it common to see noise phobia occur in dogs with separation anxiety?

OVERALL: Dogs with fears and/or related anxieties may be at increased risk for non-noise-related phobias, but there are no published data.

Phobias are thought to develop when escape from the stimulus is not possible.

- If the dog is unable to move because of crippling fear, he has no conscious cognitive ability to escape and so may become phobic. Dogs can become phobic of anything.

The hallmark of a phobia is its sudden, profound development.

- It's unclear whether the 'suddenness' of development is a function of client attentiveness, but sudden, profound development is also reported for humans.
- We actually know little about the development of phobias because early signs may be missed, but once fully developed, which appears to happen quickly and with relatively little exposure, each phobic episode is more like the others than they are different.

Dogs experiencing entrapment in any injurious or potentially injurious situation may become phobic (e.g., dogs caught in fires may make an association with an apartment or a crate, dogs in car accidents may become phobic of cars or the restraint system in use when the accident occurred, dogs attacked and profoundly frightened by one specific dog may become phobic of the breed, dogs used in illegal dog fighting may become phobic of all dogs or certain people, et cetera).



It's likely, given that so many dogs exposed to terrible stimuli do not become phobic that there is some genetic liability associated with the development of phobias. If noise/storm phobias are specific cases of phobias, in general, we know that these run in family lines.

CHF: What are the clinical symptoms of noise phobia?

OVERALL: *Diagnostic criteria and description for **storm phobia**:*

- Profound, non-graded, extreme response to some aspect of the storm (accompanying noise, wind, lightening, wind, thunder, ozone levels, changes in barometric pressure, alterations in illumination, et cetera) manifest as intense avoidance, escape, or anxiety and associated with the sympathetic branch of the ANS.

*Diagnostic criteria and description for **noise/storm phobia**:*

- The behaviors can include mania or catatonia concomitant with decreased sensitivity to pain or social stimuli. Once established repeated exposure results in an invariant pattern of response.

CHF: What are the most common triggers for noise phobia?

OVERALL: Sharp, loud or echoing noises. Oddly, for some dogs with what we think of as noise phobia related to storms their trigger is an ozone change or bright light.

CHF: Are there any breeds that experience noise phobia more often than others?

OVERALL: Herding breeds may be over-represented.

CHF: How do you recommend treating noise phobia?

OVERALL: People think the dogs will outgrow it – almost without exception this appears not to be true. Instead, if the dog is profoundly affected the first time minimize the cost of error and assume they are affected and treat them (benzodiazepine, alpha agonists). If they worsen between exposure 1 and 2, even if they are not yet panicking, treat them.

Muttmuffs, thunder shirts or quiet pressure, white noise, secure places (closets; crates with blankets), company, etc. all help.

CHF: Let's start with owner education, what do owners need to understand and know to help their dog with noise phobia?

OVERALL: They will not grow out of it and it may be a reflection of how they process info, not how well they hear. In some breeds selected for quick reactivity we may have overshot.



CHF: Next, how can the environment be managed to help a dog with noise phobia?

OVERALL: This is tough. Sound and vibration proofing can help but it can be expensive, so anything we can do to change their perception (eye shades, calming caps, thunder shirts, safe places) can help.

CHF: Are there desensitization strategies owners can use to help their dog?

OVERALL: For mildly affected dogs DS and CC can help and there are a number of CDs that can help with this. But there are 2 issues: these will not work and may delay better treatment for profoundly affected dogs, and they may not mimic the complete environment for that dog.

Once dogs are on meds, these help (Sharon Crowell-Davis at GA published a study in JAVMA 2001 showing this).

CHF: Finally, do you recommend using drugs to treat noise phobia?

OVERALL: Medications most likely to be effective are those that address panic:

- A benzodiazepine (BZD) like alprazolam, or clonazepam, should a long-lasting medication be needed. BZD can be used as for the protocols for noise/storm phobia and panic.
- SSRIs like fluoxetine, sertraline and paroxetine that have been useful in similar situations in humans.
- Gabapentin, alone or in combination with tricyclic antidepressants (TCAs) and/or selective serotonin reuptake inhibitors (SSRIs) if reactivity is the primary concern.
- Central alpha agonists like clonidine depending on the level of the arousal response. For dogs who panic or become quickly phobic this medication is an option should the dog be unresponsive to or suffer from side effects of BZD.

CHF: Is there any benefit to using drugs concurrently with desensitization?

OVERALL: This is best.

CHF: We asked this in your previous podcast on separation anxiety, but if an owner has anti-anxiety medication in their house for human use can it be used on their dogs to treat noise phobia?

OVERALL: No, and it shouldn't be used for other humans, either. Dosages and formulations may vary so talk to the vet. In truth, your dog may end up with the same fluoxetine you are getting, but you need the informed environment that makes such coincidence occur safely and responsibly.



CHF: What is the prognosis for dogs with separation anxiety and noise phobia?

OVERALL: About 88% of dogs in one clinic population who had noise or storm phobia also had separation anxiety. The risk is that you think you are treating the problem and the treatment isn't working; so, you go back and find out if there are other anxieties. Once you treat all of them the dogs improve.

Excellent for control and the earlier they are treated the better; not good for cure (you always have some liability) and these dogs are at risk for other later anxiety-related responses. Just knowing this can help people be prepared.

CHF: Since we are a research funding agency, where do you think our greatest gaps are in our understanding of canine behavioral problems and what sort of research should we fund?

OVERALL: We don't have long enough to discuss this, but our greatest gaps are of 2 kinds: what we know, and how we come to know it.

The last first: Very few vet schools have full-time programs in veterinary behavioral medicine that also involve research or people who are both vets and trained to do and think as researchers (e.g., PhDs). This limits both what people are taught, how they are taught to evaluate information and what we can learn. Most vet schools that do have programs have only clinical care programs....patient care is an essential part of this specialty, but it is also important to have time to think about what those patients tell you. Most of my best insights have come from watching patients and how they do or do not respond to interventions. They are the filter through which I read every scientific paper and through which I cast my own writings.

The other concern is what we know, and we do not know much. I have recently reviewed the literature on 'normal' behavioral development, neurodevelopment and factors that affect reactivity and problem solving behaviors. When you think about it, these issues are what make 'good pets' and what keep dogs in families and not discarded. Let's put it this way, when I write about this I make a lot of inferences from other species because we really know very little. It actually scares me that we think we know more than we do.



RESOURCES:

Journal of Veterinary Behavior: Clinical Applications and Research
www.journalvetbehavior.com

Manual of Clinical Behavioral Medicine for Dogs and Cats, 1st Edition
<http://store.elsevier.com/product.jsp?isbn=9780323240659&pagename=search>

Humane Behavioral Care for Dogs: Problem Prevention and Treatment (DVD)
www.amazon.com/Humane-Behavioral-Care-Dogs-Prevention/dp/0323187870