

ANXIETY

WHAT IS IT AND HOW DOES IT CONTRIBUTE TO BEHAVIOR

NOISE/STORM ANXIETY

Terry Marie Curtis DVM, MS, DACVB
curtist@ufl.edu

anx-i-e-ty

Oxford's English Dictionary's definition:

Noun a feeling of worry, nervousness, or unease, typically about an imminent event or something with an uncertain outcome.

Psychiatry – a mental condition characterized by excessive apprehensiveness about real or perceived threats, typically leading to avoidance behaviors and often to physical symptoms such as increased heart rate and muscle tension.

Fear is a normal and adaptive response. Most fears are learned and can be unlearned with gradual exposure.

Phobias are fear reactions that are persistent over time, consistent in terms of what causes the fear response, and are learned, irrational, and *not* adaptive.

So, what's "normal" fear vs. phobia? Experiencing fear when lightning strikes outside is normal. Even the "bravest" of us would most likely startle, jump, etc. So, this type of response would be normal for our pets as well. However, experiencing anxiety or fear every time there is a dark cloud in the sky, or the leaves rustle is indicative of a phobia.

Possible causes of fears and phobias include genetic factors, traumatic or aversive events, restricted early experiences, and/or intentional reinforcement. Fears and phobias associated with noise are not uncommon in dogs and can be seen as early as 9 weeks old. Noise phobias usually develop over an extended period and the most common examples include thunder and fireworks. More subtle examples include the dishwasher, the rustling of a plastic garbage bag, and home alarm "beeps".

So, that's what it is. Now, how does it contribute to behavioral issues?

In dogs and cats, anxiety can contribute to – if not the primary cause of: human-directed aggression, inter-dog/cat aggression, urine marking, departure/separation anxiety, **noise/storm anxiety**, and compulsive behaviors.

When I'm talking about anxiety with clients, it's typically because we have agreed that their pet's behavior has a large contributing part to it. The goal, therefore, will be decrease that anxiety – change the pet's feelings "of worry... or unease". In general, here's what we're talking about:

There are two basic roots to anxiety

- Something predictably bad
 - "I've been here before and something bad happened. I'm here again, I'm afraid."
- Something unpredictable
 - "What's going to happen?"

(There is also the anxiety associated with excitement, but that typically isn't a problem that pet owners are concerned with and not what we're going to address here.)

When working with clients with anxious pets, I say that “There are at least 2 individuals with anxiety: You and Your Pet.”

So, let's take it from the **pet owner's perspective** first.

X-Y-Z There's some trigger with some predictable outcome. “My dog is going to sense a storm coming and start to panic, pace and dig at the carpet!”

Or

X-Y-? There is some trigger and the outcome is unpredictable. “There is a storm predicted and I'm not sure what my dog is going to do.”

From the **pet's perspective**, it may look like this:

X-Y-Z There's a trigger with a predictable outcome. “There is a storm coming and something bad is going to happen to me – like the time I was outside and lightning hit my dog house!”

Or

X-Y-? There's a trigger and the outcome is unpredictable. “There is a storm coming and something bad might happen to me.”

The unpredictable is often the most concerning for owners. “I'm not sure what my cat is going to do. I'm not sure how this situation is going to affect my dog's behavior. Sometimes my pup is fine with the sound of the ice maker, but sometimes she runs and hides! Sometimes when I leave on a trip, my kitty urinates on my bed. Other times he's fine... There doesn't ever seem to be a reason for my pet's behavior or a pattern.”

What owners and pets need is for the situation – all situations – to be *predictable*.

HOW?

Ensure the outcome.

If you think about the behavioral manifestations of anxiety, fear, or phobia [hiding, pacing, trying to escape, etc.] – what is their function? To ensure the outcome. To make sure that the pet that is in an anxiety-provoking situation stays safe. In the predictable scenario, it's an attempt to make sure that something bad that's happened in the past doesn't happen again. In the unpredictable scenario, it's employing the “best defense is a good offense” strategy. That could be the result of early learning, or it could be that the pet has a high level of anxiety to begin with. WHY? Nature v. Nurture. There may be an ascertainable explanation – such as the dog's house getting struck by lightning or the cat getting stranded out in the middle of a bad storm – but there may not be. The breeder did everything right. The owner did everything right. The kitten/puppy was socialized exactly the way that it *should* have been. What went wrong? Even if you have an answer, you're still tasked with solving the problem – changing the behavior.

So, what do we need to do? Ensure the outcome in an entirely different manner.

From the owner's perspective:

Instead of **X-Y-Z** “My dog is going to hear thunder and panic!”

It's going to be **X-Y-Q** “My dog is going to hear thunder and get a treat!”

Instead of **X-Y-?** “My cat is going to hear strong wind and maybe run and hide.”

It's going to be **X-Y-Q** “My cat is going to hear strong wind and get a treat!”

From the pet's perspective:

Instead of **X-Y-Z** "I'm going to see dark clouds in the sky and something bad is going to happen to me!"

It's going to be **X-Y-Q** "I'm going to see dark clouds in the sky and mom is going to give me a treat!"

Instead of **X-Y-?** "I'm going to hear thunder and wonder what's going to happen to me."

It's going to be **X-Y-Q** "I'm going to hear thunder and get a treat!"

Ideally, EVERYTIME there's a storm – or some other "scary" sound – the dog or cat gets a treat. This way, the owner knows exactly what's going to happen whenever there's a storm or when the ice maker turns on: they are going to give the cat or dog a treat! And the pet knows exactly what's going to happen whenever they hear thunder or ice being made: they are going to get a treat!

Predictably Bad and Unpredictable become Predictably Good

A key component of all of this is that the pet gets a treat **regardless of their behavior**. The cat can be hissing or growling. The dog can be pacing or panting.

How can this be? How are we not "rewarding the bad behavior"??

Let's take a quick detour back to learning. Operant Conditioning vs. Classical Conditioning

Classical Conditioning involves learning by association. It's a passive form of learning. The individual learning doesn't have to DO anything. There are associations made through observation and experience. "When this happens, that happens; or I feel this way."

Operant Conditioning is a more active process. You have to DO something to GET something. It's goal-directed. "If I do this and something good happens, I'm going to DO that thing again." That's the concept of a reward. "If I do this and something bad happens, I'm not going to DO that thing again!" That's punishment.

For purposes of simplicity and clarity, think of operant conditioning as *getting something*. If the individual isn't asking for or wanting something, there can be no reward.

EXAMPLE:

A dog that is whining at its owner to get attention, to go outside, to get fed. If the owner pets the dog, lets it outside, or gives the dog food, the dog has gotten something. It has been rewarded for whining. Therefore, through operantly conditioned learning, the dog is more likely to whine in the future to get petted, to be let outside, or to get the owner to give it food.

If a dog is whining because a storm is coming – it is doing so to express an emotion: anxiety/fear. **The dog is whining for a reason.** Telling the dog "No!" isn't going to make any sense to the dog and it's likely not to get the desired response. What we need to do is 1) Acknowledge that the dog is whining for a reason, 2) Validate the dog's behavior and not punish it, and 3) Address and change the reason that the dog feels it needs to whine in the first place. That change won't be obtained through operant conditioning – because the dog isn't ASKING for anything. However, the change WILL occur through classical conditioning. "Hear thunder and get a treat!" Over time and with repetition, what the dog will know is that every time it hears thunder it will get a treat. The dog's behavior – while it is getting the treat – is immaterial. It can be whining, panting, shaking, or sitting nicely. It doesn't matter. Giving the dog a treat isn't rewarding anything because you haven't asked the dog to DO anything.

To clarify: If you tell a whining dog to "STOP whining!" [which it isn't likely to do if it's anxious...] and it does and then you give it a treat, THAT is operant conditioning. The dog DID something you asked it to do, and he GOT something for doing it! The treat doesn't have anything to do with the dog's reaction to the sound of thunder or the ice maker and therefore he's just as likely to whine the next time he hears those sounds. Timing is everything. The anxious pet has to learn that the reason that they were anxious [and whining, hiding, etc.] no longer exists.

Noise ≠ Something Bad or Unpredictable. Noise = Something Good! A treat!

Thunderstorm Phobia in Dogs

Pets – dogs in particular – can show anxiety or fear with wind, rain alone, thunder, lightning, etc. There may or may not have been an inciting cause to explain the current fearful behavior. Fear and anxiety in response to storms can manifest in a variety of ways. One dog may simply hide or stay near you. Another may tremble and shake, while yet another will drool profusely. The worst cases are those that involve the dog “wanting to be anywhere other than where it is”. If the dog is outside, it wants to get inside. If the dog is inside, it wants to get outside. It often appears as though the dog just wants to get out of its own skin... These dogs can do extensive damage to the inside of homes (they can dig at the carpet, at doors and windows), to the outside of homes (they can dig out of fences), and/or to themselves (they can break teeth and nails trying to get out of crates, rooms, and fences).

Treatment of thunderstorm phobia *may* be simple. Bringing the pet indoors during the storm and providing television or radio “noise” may be enough for some dogs. For some, as long as the owner is home they’ll be okay. Others do fine if they’re provided with a “safe hiding place” such as a bathtub, a laundry basket, or a closet.

In some dogs, given the complex nature of storm phobia, treatment can be very difficult. Since the dog may be responding to impossible-to-control stimuli such as changes in barometric pressure, ionization, lighting, etc. it can be very difficult to desensitize the dog to these stimuli. However, if the dog does respond in an anxious manner to the sound of rain and/or thunder, **desensitization and counter-conditioning** (DS&CC) can be done using various storm CDs – which are available at book stores, on the Web, etc. It is important to start with the least scary stimulus – such as rain – and move slowly and gradually to the sound of thunder. The dog is to be rewarded with a yummy treat for being calm and relaxed as the CD is played in the background – in a very controlled way by the owner. The sessions should be about 5-10 minutes every day, or as the owner’s schedule permits. The CD should NOT be left on as background noise, as this may become a flooding technique that is likely to worsen the anxiety.

As discussed in length above, **classical conditioning** can also be used – by pairing the storm with a very special treat or toy – making the storm FUN! I have recommended “**storm parties**” to a number of clients with very good results!!

[The Storm Defender Cape™](#)

The Storm Defender Cape was invented by a man with degrees in psychology and electrical engineering – whose own dog had storm anxiety. “He came across a theory that the static charge before and during thunderstorms was the trigger that upset dogs. He developed a cape with a special metallic lining that discharges the dog’s fur

The Storm Defender Cape became – and still is – part of the comprehensive treatment plan that I recommend for dogs with storm anxiety. Those dogs that already tend to hide in the bathtub, shower, or behind the toilet seem to respond particularly well. I had client after client provide me with positive feedback. Dogs that would hide in closets now came out – decked out in the cape – to join the family when it was storming. And this was after the cape was added to a regimen of medications, etc. Again, as with everything, this product isn’t going to work in every case for every dog with storm anxiety. But, it’s definitely worth a try. [Dog Anxiety Cape | Wrap for Dogs with Anxiety | Dog Calming \(stormdefender.com\)](#)

[The ThunderShirt®](#)

The ThunderShirt was invented in 2009. “It is a garment designed for dogs and cats, that applies pressure to their torsos in the hopes it produces a calming effect on them.” [ThunderWorks - Dog and Cat Calming Products – ThunderShirt](#) In my hands, this product is hit or miss. While I think more of my clients find this product on their own – without my recommendation – than the Storm Defender Cape, I haven’t seen an overall positive effect. Again, not everything is going to work in every case. There ARE dogs who experience a relaxing effect with the ThunderShirt. And the effect could be so positive that these are the cases that never make it to me. That would make sense. I don’t have any experience with cats using this product. Most cats hide when a storm comes, so it’s unlikely to get the product on the cat when they need it most.

CASE: I had a client with a Boston Terrier with severe storm anxiety. His owner had gotten him a ThunderShirt – which at first helped to relax him. However, at the sight of the product instead of associating the product with a feeling of relaxation, the dog associated it with the storm itself and became more panicky. That's the thing with learning: the pupil doesn't always learn what we're trying to teach...

Some dogs also have a very calming response to [Dog Appeasing Pheromone](#) (Adaptil, Thunder Ease). The product mimics the effect of a canine nursing mother, so it can be very soothing and calming. Each **diffuser** covers an area of approximately 600ft², so it is recommended that it be placed in areas where the dog tends to spend most of its time – especially when there's a. Use of the **collar** is also recommended as it provides continuous release of the calming pheromone no matter where the dog is. Both the diffuser and the collar have an effectiveness of ~ 4 weeks. It also comes in a **spray** which can be used on the dog's bedding, etc.

[Zenidog](#) is another pheromone option. It comes in collar that lasts 90 days and a gel diffuser that can be taken and used anywhere – as no electric connection is required.

In short, treatment of noise phobias – including storm phobia – involves exerting control over the environment, if possible. Ideally, except during training sessions, the pet should not be exposed to the fear-evoking stimulus – this would mean during the “dry season” for storm phobia. For DS&CC you need to be able to control the intensity of the stimulus so that a gradient can be established. This can be done using an audiotape (CD) or a videotape of the sound. The animal is retrained with food rewards in a controlled situation for relaxed behavior. With some dogs, getting them to play a particularly fun game or to eat a really yummy treat can get them through the storm. This way the dog learns that the storm means something good!

Thunderstorm Phobia in Cats

There is no reason to assume that storm phobia doesn't occur in cats. However, they tend to hide instead of exhibiting destructive behavior. So, the question becomes one of whether to bring the cat out to treat/medicate it or to just let it be...

The [Feliway](#) pheromone products: Classic, Multi-Cat and Optimum all come in a diffuser so one or a combination of two or all three may be very helpful in decreasing a cat's storm anxiety.

Anti-Anxiety Medications – daily, as needed – can be very helpful in the treatment of noise anxiety in both dogs and cats. In-depth discussion can be found in the notes for Behavioural Psychopharmacology.

Parting Thoughts...

Under NO circumstances should punishment be used. It will only serve to add to the pet's level of anxiety and fear. Keeping your pet calm and relaxed in general is a very important part of treatment.

Prevention of noise phobias *may* be possible through the early exposure of the pet to as many different stimuli as possible. Habituation during the early, sensitive periods *may* help prevent many of the fears and phobias seen in adult cats and dogs – however, there is no guarantee...