

ANTI-ANXIETY MEDICATIONS AND TREATMENTS



Anxiety, fear and stress come in all different forms – mild, moderate or severe; occasional or every day. Accordingly, we have many choices for addressing and managing anxiety, so we can find a solution for every patient need. We have diets that contain calming ingredients, nutritional supplements with anti-anxiety effect, prescription medications, as well as products such as pheromones and soothing music. This handout will try to list most of these products and explain the pros and cons of each.

For dogs especially, there are ways to address anxiety through training and behavior modification. Often the behavior that needs to be modified is our own. We tend to ignore good behavior from our dogs but make a fuss over them when they are anxious or afraid. Dogs take behavioral cues from us. If we reward calm, non-anxious behavior with praise or treats and ignore anxious behavior that sends a very different message from cooing and coddling as soon as the pet starts to become afraid. If you don't make a big deal out of shy behaviors and praise when your dog is brave enough to approach a new person or sniff around the exam room it can make a big difference.

We have handouts and booklets for helping our clients to understand and modify their pets' anxious or fearful behavior. We can also refer you to a trainer or behaviorist. There are some local trainers who teach classes for shy and reactive dogs as well. The more you know, the less likely you are to inadvertently make your dog's anxiety worse. We can't turn your shy dog into an extrovert but we can still modify his or her behavior somewhat. During a puppy's or kitten's socialization period of brain development we can have a very large impact on how the pet responds to stressful situations. In general, the older the pet is the more difficult it is to change the way the brain responds to stress.

Behavior and training can only go so far and they are usually not the only treatment we recommend. There are dozens of products on the market for treating anxiety in cats and dogs. The most effective are prescription medications. For severe fear or anxiety we are likely to quickly recommend those. For mild to moderate anxiety we have lots of choices. In fact, we have so many that it can be overwhelming and confusing to choose.

The most important thing to remember is to choose products that we recommend because we know they may actually work. You also may see much better results when you combine products. There are multiple neurotransmitters involved in the stress response, including serotonin, cortisol, epinephrine (adrenaline) and endorphins. If you use a supplement or medication that increases serotonin along with a Thundershirt that increases endorphins, for example, you will be addressing the problem from two different directions.

Most pet owners are reluctant to try prescription anti-anxiety medication because they worry

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about overmedicating or “drugging up” their pet. However, the FDA approval process and manufacturing standards mean that these medications have the most testing and safety data and the most predictable effects. Most over-the-counter antianxiety products have had no testing for safety or efficacy. Many are a total waste of your money.

People tend to assume that if it’s not a prescription product or the label says it’s “natural” then it must be safe. On the contrary, these products are often contaminated, adulterated or useless. (When products are pulled off the shelves of pet stores and analyzed in a laboratory it’s amazing what may be found. In one study 50% of the balls sold were found to be contaminated with lead and in another study of human glucosamine products only two out of forty actually contained what the label said was in the bottle.)

HERE ARE THE MOST COMMONLY PRESCRIBED PRESCRIPTION ANTIANXIETY MEDICATIONS:

_____ **Alprazolam** is a benzodiazepine drug, the same class of drug that includes Valium. It reduces anxiety without excessive sedation, and is very useful for preventing panic. It starts to work quickly – usually in about 30 minutes - and it lasts about 8 hours. This is long enough to get a dog or cat through a night of thunderstorms or a day at work. In dogs, its only drawback is that about 10% of dogs become agitated instead of calm. We usually have you give it on a quiet day at home, when you don’t need it, to make sure it doesn’t have this effect *before* using it in a truly stressful situation. Alprazolam works well in some cats too, but is usually not effective for severe stress and many cat owners find it difficult to administer it. It comes in a tablet for humans and it isn’t at all tasty to cats.

_____ **Clonidine** is a shorter acting medication than alprazolam, lasting about 4 hours. It doesn’t have alprazolam’s risk for agitation but it’s fairly mild. It’s a good product for dogs with mild anxiety lasting a short amount of time. It is not used in cats.

_____ **Gabapentin** is our go-to drug for short term anxiety in cats and we are using it more and more in dogs as well. Gabapentin has been used for chronic pain for several years but is only been recently recognized as effective for anxiety as well. Other than drowsiness it has very little risk for side effects. When mixed with something tasty most cats will eat it hidden in food.

_____ **Trazadone** is the drug we use most commonly for situational anxiety in dogs, especially when we don’t have the opportunity to do a trial with alprazolam. Trazadone doesn’t cause the agitation that we see occasionally with alprazolam but it has some drawbacks, mainly that the dosage varies quite a bit from dog to dog. It also is absorbed more slowly and less predictably so it’s harder to know how soon it will take effect and how long it will last. We usually start with a medium dose given two hours before it is needed and then repeat every 12-24 hours as needed but it may take some experimenting to find the right dose for a particular dog. We don’t use trazadone in cats.

_____ **Sileo™** is a new drug specific for noise phobias. Does your dog panic during thunderstorms or fireworks? Sileo is perfect for short duration scary events. It is a lower dose and a different form of a drug we have been using for years for sedation and anesthesia. It comes in a gel that you squirt between the cheek and gums, where it is quickly absorbed into the bloodstream.

Dr. Boss’s dog Izzie had severe thunderstorm anxiety, which had not been helped by any of the oral anti-anxiety medications listed above. While tent camping on her property near Baraboo

one weekend the weather predicted a long night of storms. In the past, this would have led to a shivering, panicky dog. Izzie received a dose of Sileo™ when the first growl of thunder was heard and in 10 minutes she was asleep! Dr. Boss was amazed – it's loud in a tent in a thunderstorm! Sileo is supposed to last 2-3 hours but it was 5 hours before Izzie had to get another dose to get through the rest of the night. She went back to sleep.

Every dog is different as far as response to behavior medication. We don't want to promise that it will work as well for your dog as for Dr. Boss's. However, we would absolutely recommend that you try it, especially if your dog has failed other drug trials for storms or fireworks. We hope it's as big a miracle for your dog as it was for Izzie! It has not been studied for use for other types of anxiety but we suspect it will work for more than just noise aversion.

Sileo does have a couple of drawbacks; it's expensive to use for a large dog because you only get about 3 doses per tube, and the drug doesn't last long enough to get you through an entire day or night of storms.

It often takes time to find the medication and the dose that works best for a particular pet. All of these prescription medications we've just listed are used for short term anxiety or as adjunctive therapy along with fluoxetine or clomipramine for long term treatment. These latter two drugs are used for long term stress or anxiety, such as separation anxiety in dogs or urine spraying in cats.

_____ **Fluoxetine** is best known by its brand name, Prozac™. It is a type of drug called an SSRI. It's the most effective drug we have for actually changing brain chemistry for lasting effect on anxiety. It has low risk for side effects other than drowsiness. Its downside is that can take weeks or even a couple of months to reach its full effect. When we want a long term change in how a pet views the world and responds to it fluoxetine is the medication we reach for. We usually need additional help from other medications at least in the beginning, because it is so slow to kick in.

_____ **Clomipramine** is our back-up drug when fluoxetine doesn't work. Every once in a while we have a patient who gets aggressive on fluoxetine and we need an alternative. Clomipramine is from a different drug class than fluoxetine but has many of the same effects.

_____ **Amitriptyline** is an older antianxiety medication that we prescribe once in a while. It is a TCA drug, different from fluoxetine. Amitriptyline can be helpful for chronic pain as well as anxiety so it is sometimes used for chronic cystitis in cats, or for pain from arthritis or cancer.

NUTRITIONAL SUPPLEMENTS FOR ANXIETY:

The thing to remember about these products is that there has not been very much research to prove they work, and over-the-counter products may be poor quality and a waste of your money. The specific ingredients and brand names we have listed below have the best track records and come from reputable companies that have done some amount of research and quality control on their products.

_____ **Calming Care** is a probiotic. There is a direct connection between the gut and the brain. A healthier microbiome improves brain function. Probiotics are being used for many neurologic disorders in humans, including Alzheimer's disease, Parkinson's disease, ADHD and depression. Calming Care has been shown in clinical trials to help about 60% of dogs with anxiety. Please see our video or handout on the Microbiome for more information on this fascinating topic.

_____ **Milk proteins:** These are compounds present in milk and milk products that are calming. There are several products available that utilize extracts from whey or milk. You may see the word casein used on labels, or sometimes alpha-casozepine. **Zylkene™** is a brand of tablet supplement. Whey-derived protein is also used in **Hill's C/D Stress** and **Royal Canin's Calm™** diets. These products have some testing behind them, though not a lot, and they seem beneficial to some pets.

_____ **L-theonine** is probably the best-studied and most effective of the behavioral supplements. It is an amino acid (amino acids are the building blocks used by the body to make proteins), commonly found in tea, especially green tea. Pets aren't fond of drinking tea so for them we have chewable tablets. **Anxitane™** has been around for several years and can be used for acute stress such as a visit to the veterinarian, or for long term anxiety. (For acute stress you would give 2 tablets 12 hours, 6 hours and 1 hour before your visit to the clinic.) We also have a new product called **Solliquin™** that contains L-theonine along with whey protein. Solliquin has about an 85% success rate in a small 6 week long study of 21 dogs with anxiety. Both products come in tasty chewable tablets.

Magnolia officinalis and **Phallogendron amurense** are botanical extracts used for anxiety, usually together. **Harmonease™** is one brand available. **Solliquin™** contains these plant extracts too, along with L-theonine and whey protein. We especially like Solliquin™ because it is a combination product. Supplements tend to have mild effects but when you put several together you get a better and stronger effect.

_____ **Melatonin** is a hormone produced by the pineal gland in the brain. It helps to regulate sleep/wake cycles and seasonal changes in the haircoat. People commonly take it for jet lag. It is useful for mild stress, either all the time or just for anxiety-inducing events. It comes in 3 and 5 mg tablets for humans. Small and medium dogs get a 3 mg tablet and large dogs a 5 mg one, either 1 hour before your appointment or every 8-12 hours on a daily basis.

_____ **Tryptophan** is an essential amino acid and a precursor to the neurotransmitter serotonin. More serotonin means less anxiety. (Drugs such as Prozac™ also work via increasing serotonin levels.) It's the substance found in protein such as turkey meat and warm milk that makes you drowsy. Studies in dogs so far show pretty weak effects but tryptophan is another ingredient in the Hill's C/D™ and Royal Canin Calm™ diets to help with stress.

PHEROMONES:

Pheromones are natural chemical substances secreted from specialized skin glands. They cause an emotional or physiologic response in the species they are natural to. Dog Appeasing pheromone, for example, is produced in skin glands located between the chains of mammary glands in female dogs nursing puppies. Its function is to calm and reassure (appease) the puppies. It is a relaxing and familiar smell to adult dogs long after they have forgotten all about their mothers. It is available as a spray, a room diffuser and a collar, under the name **Adaptil™**.

_____ **Adaptil™** has been shown to be effective for management of fear and stress behaviors including separation anxiety, noise aversion to fireworks and thunderstorms, and for coming to the veterinary hospital. It can aid in the introduction of puppies and adult dogs into new homes and situations and reduce anxiety due to car rides, traveling and exposure to other dogs. We believe that every new puppy or newly adopted dog should have an Adaptil Calm collar! It makes introducing all sorts of new things less stressful – new people, new food, nail trimming,

veterinary visits, encounters with bicycles, skateboards or children, car rides, going to the groomer for the first time...

_____ The equivalent product to Adaptil™ for cats is called **Feliway™**. Feliway™ is a facial pheromone instead of a mammary gland one. It's the same scent cats rub on people and objects to make them smell comforting and familiar. There is also a form of Feliway designed to reduce aggression and stress from interactions with other household cats, called **Feliway Multicat™**.

Pheromones have no toxicity or side effects. They are safe for pets of any age and can be used either alone or in combination with behavioral drugs and/or nutritional supplements for anxiety.

OTHER PRODUCTS:

_____ **Through a Dog's Ear™** (<http://throughadogsear.com/>) and **Through a Cat's Ear™** (<http://throughadogsear.com/icalm-cat/icalmcat-landing-jan/>) are audio recordings of music that has been shown to be soothing for pets. The music also help to mask or drown out scary noises. You can play these in the car on the way here, during storms or fireworks, or continuously while a pet is hospitalized.

_____ The **Thundershirt™** is a compression wrap that looks like a coat. It provides gentle, constant pressure on a dog's torso, which stimulates endorphin release. Similar products are used for children with autism and anxiety disorders. 85% of dog owners who have tried one report significantly reduced anxiety symptoms when using a Thundershirt. Thundershirts are also available for cats. We usually stock the dog ones here, or visit www.thundershirt.com.

_____ **Head Halters** such as the Gentle Leader™ gently press on a couple of trigger points on the head, one of which is on the back of the neck right behind the ears. When a mother dog picks up her puppies by the scruff of the neck to move them this trigger point sends signals to the brain that tell the puppy to relax – Mom does not need flailing or squirming while she carries them around! Having a head halter on is calming. We stock Gentle Leader™ head halters (which are also useful for many other behavioral problems) and we can help to fit them and get you started using them.