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# **COMPLEMENTARY AND NATURAL THERAPEUTICS FOR BEHAVIOR THERAPY**

# Can natural products be used for behavioral therapy?

This is a broad topic that includes a variety of therapeutic options including herbal remedies, homeopathic remedies, nutraceuticals and supplements. There are few controlled studies to show that any of these treatments are effective in pets. The same might be said for most of the drugs used in behavior therapy, but most of these have at least been proven to be effective in human behavior therapy. In addition, because these products contain "natural" ingredients, there can be great variation in purity, quality, level of activity, and efficacy from manufacturer to manufacturer and from batch to batch.

In addition to the use of the human products available as complementary therapeutics, a number of veterinary products are now on the market for anxiety disorders, cognitive dysfunction and generalized calming effects. Although these products generally meet a level of quality control and standardization that is similar to pharmaceuticals, efficacy studies are generally lacking. Pheromones are a natural alternative that does provide some sound scientific evidence of efficacy. Other modalities such as aromatherapy, acupuncture, telepathic communication and TTouch are beyond the scope of this handout. (TTouch can be found in one of our accompanying handouts).

#### What are Pheromones and how are they used?

There are commercially available pheromones now available for use in dogs and cats in North America, Feliway™ a synthetic cheek gland pheromone for cats, and DAP™ a synthetic dog pheromone derived from the intermammary sebaceous glands of the lactating bitch. Pheromones stimulate the vomeronasal organ and affect areas of the brain that lead to emotional responses. They are species specific; in other words the pheromones of one species will only have an effect other members of that species. Each of these pheromone products is available as a spray for use in localized areas (e.g. car, kennel) or as a plug-in diffuser, which is aerosolized over about 700 square feet for 30 days. Feliway may be useful for reducing marking behavior including some forms of scratching, as well as to help to calm the cat in the home such as in situations where there has been some household change to which the cat is having difficulty adapting. DAP may help to reduce anxiety such as when a new puppy is introduced to the home, in cases of separation anxiety or noise phobias or when there have been changes in the household to which the dog is having difficulty adapting. Pheromones may also be useful to help the pet adapt to car travel, boarding or moving into a new or temporary home or cottage.

# What is Ginkgo biloba and how is it used?

Ginkgo biloba is an herb that may alter a number of neurotransmitter systems in the brain, including acetylcholine, serotonin and norepinephrine and may have antioxidant effects. It may be effective at enhancing blood flow to the brain. It may be useful for senior pets with cognitive decline.

#### What is Kava kava and how is it used?

Kava kava is an herbal product may aid in the relief of mild anxiety. In humans, due to reports of possible liver toxicity, the product is no longer available in some countries. In pets there have been no controlled studies but it has been recommended for anxiety, as a sedative or muscle relaxant or as a sleep aid, and for the treatment of over-grooming in cats. Kava kava should not be combined with other anti-anxiety medications. It may cause gastrointestinal upset and should be avoided in patients with liver disease.

## What is St. John's Wort and how is it used?

St. John's Wort is a plant that has been suggested as a natural alternative to antidepressants. There have been claims of its use in dogs and cats, but no controlled studies. There are the same contraindications as with other antidepressants. St. John's wort may cause increased sensitivity to sunlight. It is said to sedate, reduce anxiety, improve mood and sleep and reduce inflammation. It may be useful in compulsive disorders. As with pharmaceutical antidepressants it has been suggested that a period of three weeks or longer may be required to achieve therapeutic effects. St. John's Wort should not be used in conjunction with other pharmaceutical antidepressants due to the potential for severe side effects and/or reactions.

#### What is Valerian and how is it used?

Valerian is a plant that has been used as a natural "tranquilizer" and muscle relaxant in animals, but controlled studies are not available. Valerian is not meant to be used long term, but may have benefit as a treatment for helping pets sleep through the night, exposure to periodic stressors, such as travel, thunderstorm phobias, and acute anxiety. Several weeks may be needed to achieve success.

#### What is Melatonin and how is it used?

Melatonin is produced in the pineal gland and is secreted into the blood at high levels during the night and at low levels during the day. Melatonin may be useful to help dogs with sleep disorders and in the treatment of fears and phobias such as thunderstorm and fireworks phobias. It may be used alone or combined with other medications such as antidepressants. Side effects in humans may include sleepiness, headaches and gastrointestinal discomfort

# How might dietary changes and tryptophan be used in treating behavioral problems?

It has been suggested that a change in diet can also alter behavior. Although some reports indicate that there may be adverse effects from supplements and preservatives in pet foods, there is no evidence to support this premise. For the most part these additives increase the nutritional balance and may protect against the toxic effects that

might be produced by "spoilage". In addition, one would expect more signs (e.g. dermatologic, gastrointestinal) than just behavioral changes if there were an adverse reaction to the food or one of its ingredients. An elimination diet (e.g. one that did not contain the suspected offending ingredients) could be used to test this hypothesis.

One common suggestion has been that a reduction of protein in the diet may lead to a decrease in aggression, but this has not been validated. In a recent canine study, the level of protein (high vs. low) in the diet or addition of I-tryptophan had no effect on fearfulness or hyperactivity, but a combination of low protein diets with tryptophan supplementation were shown to lower territoriality scores, while high protein diets without tryptophan supplementation were most likely to lead to dominance aggression. If the pet's age and health are not an issue, then a feeding trial with a reduced protein diet along with a tryptophan supplement might be considered in pets that exhibit territorial and dominance forms of aggression.

## What are Homeopathic and Bach flower Remedies and how do they work?

The basic principle of modern homeopathy is that like cures like. The theory is that a patient's symptoms can be cured by a product that would produce the same behavioral or physical symptoms in a healthy individual. The homeopathic remedy is prepared by repeatedly diluting the substance to render it non-toxic. Although the substance may be undetectable after dilution, the remedy is said to contain the vibrational energy essences that match the patterns present in the ailing patient. These remedies may be made from plants, minerals, drugs, or animal substances.

Bach flower remedies are intended to improve the emotional state of the pet, using minute dilutions of plant essences. Rescue Remedy is a combination of 5 flower essences intended to relieve panic following emotional or physical stress. Calms and Calms Forte are also combination homeopathic remedies that have been recommended as an alternative to psychotropic drugs. Although there is no scientific evidence to support any claims of efficacy, the extreme dilution of the ingredients, are likely to render them safe.

This client information sheet is based on material written by Debra Horwitz, DVM, Diplomate ACVB & Gary Landsberg, DVM, Diplomate ACVB

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