

7 Behavior Counseling

Medications and Consent Form



“Although drugs might help to improve the outcome for some behavioral cases, it is the behavior management program that is required to obtain the desirable behavior and ultimately resolve the problem.”

How are drugs used for behavior modification in pets?

A number of drugs are now being utilized to treat pet behavior problems. To determine if drug therapy might be a consideration, it is first essential to determine the diagnosis and cause of the problem. Drugs are indicated when behavior techniques alone are unlikely to improve the problem, in cases that have not responded successfully to behavior therapy, or where it might be difficult or dangerous to proceed without the aid of drugs. In those cases where the pet is excessively anxious or exhibiting behaviors that might be harmful to itself or others, drugs may be indicated for humane reasons. In some cases, such as when there might be abnormalities in brain receptors and neurotransmission, drugs might be a necessary part of the treatment plan to help achieve more normal brain function.

A few of the types of conditions where drugs might be used include compulsive disorders, urine marking in cats, attention deficit disorders, epilepsy, and cases in which the pet exhibits anxiety, phobias, or behavioral dyscontrol.

Although drugs might help to improve the outcome for some behavioral cases, it is the behavior management program that is required to obtain the desirable behavior and ultimately resolve the problem. Conversely, without the aid of drugs, training and behavior modification may be impractical (e.g., when the pet is excessively anxious).

Which drugs are licensed for veterinary use?

To date, few of the drugs used in veterinary behavior therapy have been approved for pets. In addition to sedatives, only clomipramine, fluoxetine, and selegiline have been approved for use in dogs in North America. Most of the drugs used in veterinary behavior are human drugs, so doses, side effects, and applications for animals have been extrapolated from human use. Such drugs can be used under the supervision of your veterinarian, but you may be required to sign a form acknowledging your informed consent for such use. Each behavior case needs to be handled individually. Medications are specific for each pet and must not be transferred to other pets in the home or, of course, used by owners.

Drugs that may be beneficial for certain behavior problems in pets include:

- Antihistamines
- Anti-anxiety (anxiolytic) drugs
 - Benzodiazepines
 - Buspirone
 - Propranolol
 - Clonidine
- Antidepressants
- Progestins
- Sedatives
- Stimulants
- Anticonvulsants
- Selegiline
- NMDA antagonists

“Anti-anxiety drugs can reduce fear.”

How are antihistamines used in behavior therapy?

Antihistamines may be useful in behavior therapy for their antipruritic (anti-itching) and sedative effects. They have been used in pets for sedation before car travel, for pets that are waking through the night, and for some forms of compulsive scratching and self-trauma. Antihistamines are sedating, especially during the first few days of therapy. They are contraindicated in pets that might be prone to urine retention (e.g., prostate disease), glaucoma, thyroid disease, heart disease, or liver disease.



How and when are anti-anxiety drugs used in behavior therapy?

Depending on the type of drug utilized, anti-anxiety drugs may have an effect within hours of starting therapy or may take a week or longer to achieve their effect. Side effects vary with the type and class of drug being used, ranging from increased appetite and sedation to agitation with little or no sedation. Any anti-anxiety drug can reduce fear to such a point that some pets become more confident, bold, and aggressive (disinhibition). Benzodiazepines, buspirone, and propranolol are the most commonly used anti-anxiety medications for veterinary behavior problems.

What are benzodiazepines, and why are they used?

For anxiety, urine marking, noise phobias, fear-induced aggression, generalized fear, waking at night, and some panic disorders, anti-anxiety drugs such as the benzodiazepines (e.g., diazepam, oxazepam, alprazolam) might be used. Because of their short onset of action and relatively short duration, these drugs are primarily used for specific predictable situations that might produce temporary anxiety and less frequently for long-term or ongoing problems. Because of the potential for dependency and rebound effects (i.e., worsening of the problem on withdrawal), gradual withdrawal is recommended after continuous therapy. Liver function should be monitored before and during therapy because of the potential for liver damage, particularly in cats.

Benzodiazepines may cause sedation and appetite stimulation, and some pets might even become more agitated or anxious when therapy is first initiated. These effects usually resolve within a few days. Be certain to report any unexpected behavior changes or any medical changes, such as decreased appetite or vomiting, to your veterinarian immediately.

“ Antidepressants work by causing changes in the brain chemicals. ”

What is buspirone, and why is it used?

Buspirone is a nonsedating anti-anxiety drug that is used for some forms of fear, anxiety, and urine marking. It does not stimulate appetite and has not been associated with any major side effects. As with other anti-anxiety drugs, buspirone may remove the inhibitions associated with fear and could lead to an increase in aggression. Buspirone may take several weeks to take effect and is therefore not useful for the treatment of temporary situational anxieties.

What is propranolol, and why is it used?

In humans, the heart drug propranolol has been used for reducing situational anxiety without causing sedation. The drug works by blocking some of the physical effects that accompany fear. In theory, if the pet cannot exhibit the physical effects of fear, the behavioral signs are less likely to be exhibited. The heart rate is slowed, blood pressure is lowered, and the tremors or diarrhea that might be associated with fear are reduced. Propranolol should not be used in pets with heart, respiratory, or liver problems.

What is clonidine, and why is it used?

Clonidine is licensed for the treatment of hypertension (high blood pressure) but may also have anti-anxiety effects because it blocks noradrenaline, which causes many of the physical responses to fear. It can be used in conjunction with serotonin reuptake inhibitors about 1.5 to 2 hours (up to twice daily) before anxiety-evoking situations such as in separation anxiety, noise phobias, nocturnal barking, or storm phobias.

How and when are antidepressants used?

Most antidepressants work by causing changes in the brain chemicals called serotonin and/or noradrenaline. These chemicals transmit signals between brain cells (neurotransmitters). Because each antidepressant can have a slightly different effect on neurotransmitters, they may each have slightly different uses and slightly different side effects. Antidepressants have been used to treat urine spraying in cats, urinary incontinence, anxiety, separation anxiety, panic disorders, sleep disorders, and some forms of aggression. These drugs are generally used on a long-term basis. All antidepressants require several weeks to reach full effect and therefore cannot be used on an as-needed basis. After long-term use, they should be withdrawn slowly (decrease the dose by approximately 25% every 2 to 4 weeks). It is important to note that, although behavior therapy alone can lead to improvement for most behavior problems, drugs may help to improve the outcome but do not generally improve the behavior problem on their own. Antidepressants should not be used with selegiline, amitraz, narcotics, or tramadol and except in rare and controlled situations should never be used concurrently with other antidepressants.

There are two antidepressant drugs now licensed in the United States and Canada for the treatment of separation anxiety. The first is clomipramine (Clomicalm® Novartis Animal Health), which might also be used for compulsive and repetitive disorders, phobias, and anxiety disorders in dogs. It is licensed in Australia for use in cats with urine spraying. Clomipramine, like imipramine and amitriptyline, is a tricyclic antidepressant. However, clomipramine has a greater influence on serotonin than other tricyclic antidepressants, which makes it useful for the treatment of compulsive disorders. Amitriptyline (which is not approved for use in pets) has greater antihistaminic effects and has been used as a treatment in some forms of

chronic pain. Side effects may include a dry mouth, urine retention, sedation, or constipation, especially during the first few days of therapy. These drugs should be avoided or used cautiously in patients with glaucoma, seizures, and heart disease.



The second drug now licensed for the treatment of separation anxiety is fluoxetine (Reconcile[®], Elanco Animal Health) which is in a class of drugs known as selective serotonin re-uptake inhibitors. Other drugs in this class include paroxetine, sertraline, fluvoxamine, and citalopram. These drugs may also be useful in the treatment of compulsive, anxiety, phobic, and panic disorders and urine marking. Fluoxetine may also be useful in some forms of aggression. Selective serotonin reuptake inhibitors may have a calming effect but seldom cause sedation. Other side effects may include decreased appetite, weight loss, gastrointestinal upset, or restlessness.

Another type of antidepressant, trazodone, might be useful in the treatment of anxiety in dogs primarily as an adjunctive or add-on therapy with other antidepressants. It may be a useful aid in therapy of generalized anxiety, separation anxiety, some forms of interdog aggression, and thunderstorm phobias or to help and enhance calming such as in hospitalized pets.

What are progestins, and when are they used?

Progestins, which are female hormones, have been used to treat a variety of behavior problems. They have a general calming effect and can be used in the treatment of aggression, urine marking, and compulsive grooming. They are also used to reduce male behaviors such as marking and mounting. Progestins may lead to serious adverse effects, including diabetes and suppression of the bone marrow, adrenal gland, and immune system, and breast cancer. Therefore, they are generally used only in some neutered males where other treatments have been ineffective. The pet should be monitored closely throughout the course of therapy.

“Progestins, which are female hormones, have a general calming effect.”

How and when are sedatives used?

Sedatives have generalized effects on behavior, causing primarily sedation. They can be useful for the treatment of excessive vocalization, noise phobias, and sleep disorders and to control the anxiety and excitability associated with events such as car rides, nail trimming, or veterinary visits. They are also effective in preventing nausea. They should not be used in patients with seizures, liver disease, or heart problems and can lead to a dry mouth or urine retention.

“ Stimulants are used for attention deficit disorders in people. ”

How and when are stimulants used?

Stimulants such as methylphenidate are used for attention deficit disorders in people. Although rare, some dogs that have short attention spans, are difficult to train, display repetitive behaviors, or are extremely active and have difficulty settling down may have attention deficit disorders. Because these drugs are stimulants, they generally cause an increase in heart rate and activity level. However, in hyperactive pets, they actually have the opposite effect, leading to a calmer pet with a slower heart rate.

How and when are anticonvulsants used?

Anticonvulsants such as phenobarbital, potassium bromide, and some benzodiazepines are used to control seizures. Because certain parts of the brain control behavior, a seizure in these parts of the brain could lead to sudden and bizarre changes in behavior, which come and go without any apparent stimulus. If a seizure focus is suspected to be the cause of unusual behavior, anticonvulsants may be effective. Anticonvulsants have also been used on their own or in combination with other medications for some anxiety, panic, and sleep disorders. Newer anticonvulsants such as levetiracetam, carbamazepine, and gabapentin are also being used in some forms of behavior therapy, often in combination with other drugs, for possible seizure disorders, and where nerve pain is a possible cause.

What is selegiline, and when is it used?

Selegiline (Anipryl[®], Pfizer Animal Health) is licensed for use in dogs in both Canada and the United States for the treatment of cognitive dysfunction syndrome (CDS) as well as in the control of clinical signs of Cushing's disease. Signs of cognitive dysfunction are those of senility disorientation, including decreased responsiveness to owners, altered sleep-wake cycles, and house soiling. The drug known as a monoamine oxidase B (MAO-B) inhibitor may help neurotransmission of dopamine and noradrenaline, which may decline with age. It may also help cognitive dysfunction by protecting brain cells and decreasing free radicals (see (9) Senior Pet Behavior Problems and (10) Senior Pet Cognitive Dysfunction).

Selegiline (Selgian[®], Ceva) has also been used for states of chronic anxiety in a number of European studies. It appears to be most useful in those pets with long-standing anxiety where there are both behavioral signs and physical signs such as altered sleep-wake cycles, gastrointestinal upset, alterations in appetite, and anxiety-induced house soiling.

Selegiline should not be used with other MAO inhibitors such as amitraz, narcotics, drugs that might lead to increased blood pressure such as ephedrine, phenylpropanolamine or tricyclic antidepressants such as clomipramine and amitriptyline, and serotonin reuptake inhibitors such as fluoxetine. Selegiline has been used in the treatment of emotional disorders with components of generalized anxiety, especially in cases where physical well-being is being affected (e.g., sleep, appetite, grooming). Selegiline is not licensed in cats, but the drug may also be effective at controlling the signs of cognitive dysfunction in cats.

What are NMDA antagonists, and how are they used?

These drugs, such as memantine and dextromethorphan, may aid in the treatment of compulsive behaviors when antidepressants such as clomipramine or fluoxetine alone are not effective.

“ Selegiline is licensed for use in the treatment of cognitive dysfunction syndrome. ”

Won't behavioral drugs just sedate my pet?

Many of the behavioral drugs that have been used in the past are sedatives that have broad effects and side effects. Recently, behaviorists have been turning to human medications that have more specific effects on the individual. For example, by using antidepressant medications, we can often treat panic and phobias without compromising social, play, or exploratory behaviors.

What tests are required before drug use?

Before drugs can be considered, the pet should have a full assessment (e.g., physical examination, diagnostic tests) to rule out any medical problems that might be contributing to the behavior problem and to ensure that there are no contraindications for drug therapy. These tests should include a general biochemical blood profile, urinalysis, and blood count. Additional blood work, including a thyroid profile or an electrocardiogram (ECG) may be needed if a problem is suspected. For some drugs, monitoring may be necessary throughout the course of therapy.

What are the side effects and contraindications?

Except for those drugs licensed for veterinary use, the side effects, adverse effects, and contraindications are for the most part extrapolated from human literature. Because the number of pets treated with these drugs is relatively small, new problems may yet arise, and each pet should be closely monitored for any undesirable or unexpected effects on health or behavior. For some drugs, the physical and behavioral effects seen in the first few days, whether problematic or desirable, may be a temporary side effect that could resolve with ongoing therapy. It may take weeks or even months for the full behavioral effects of some drugs to be noted.

“Each pet should be closely monitored for any undesirable or unexpected effects on health or behavior.”

Clinic name and address: _____

Telephone: _____

INFORMED CONSENT FOR BEHAVIOR-MODIFYING DRUG USE

Pet's name: _____ Sex: _____ Age: _____

Owner's name: _____

Owner's address: _____

Telephone: _____

I, the undersigned, being the owner or duly authorized agent for the owner of the above animal, understand that the drug _____ has not been approved for use in dogs or cats.

I have been advised that the drug is being used on an extra-label basis, and I accept the consequences of its use. I will not hold the veterinarian responsible for any adverse effects, be they physical or behavioral, that might arise out of the use of this drug.

I have been advised of the potential side effects and adverse effects of the medication, such as:

I will discontinue the use of the drug and contact my veterinarian or the after-hours emergency hospital immediately should any adverse or unexpected effects be exhibited.

I understand that the following laboratory tests need to be performed before drug use:

I understand that these tests should be repeated on:

I have been advised that a follow-up examination or assessment is next due on: _____

I understand that this drug may not alter the course of the behavioral problem, and that my animal may continue with the problem behavior and may injure itself, other animals, or other people. I hereby give my informed consent to the administration of this drug to my animal. I accept full responsibility, legal and financial, for all actions that may occur from the use of this drug.

Signed: _____ Date: _____