**TAKING THE PET OUT OF PETRIFIED - PREVENTING AND MANAGING FEAR AND AGGRESSION IN THE VETERINARY HOSPITAL**  
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**Introduction**

It’s certainly not surprising that the veterinary clinic might be a scary place. Unfamiliar and fear evoking sights, sounds, and odors; examination of the eyes, ears and perhaps even prostate; taking temperatures and giving injections; nail trimming and anal sac expression; and visits for illness and injury will all contribute to negative experiences and outcomes. Therefore making the veterinary experience free of fear can be a challenge. Yet with a pro-active focus on positive visits, positive outcomes, and gentle control, unpleasant experiences can be turned into positive experiences and fearful can be turned into fear free™. In addition, the use of both pre-visit pharmaceuticals and in clinic sedation protocols may be needed to manage situations in which fear, anxiety, and pain cannot be prevented or avoided.

Stress associated with veterinary visits has been demonstrated to increase Urine Cortisol Creatinine Ratios in dogs1, increased blood pressure, temperature, panting and pulse in dogs2, a significant increase in blood pressure, heart rate and respiratory rate in cats,3 and increased glucose in cats in hospital visits compared to home visits4.

**Preventive strategies**

Since a puppy’s sensitive period begins to wane by 12 weeks and 7 to 9 weeks in kittens, the first few visits will shape how the pet views the veterinary clinic. Every effort should be made to insure a pet friendly experience, using treats, toys, and force free handling to build positive associations, while minimizing or preventing unpleasant experiences. Problems can be prevented by considering each step in the visit: crating, travel, procedures, the hospital, and the actions of veterinarians, staff, and owners.

**Canine and Feline Communication**

Learn to recognize body postures, facial expressions and vocalizations that indicate a relaxed state, a desire to positively interact as well as signs of fear and anxiety.5-11 Monitor closely since signs of fear can be subtle and change quickly. At the first signs of fear and anxiety, unless safety is an issue, back off from further interactions and determine the best way to proceed, or discontinue the procedures and schedule them for a future date.

**Why are pets aggressive in the veterinary hospital?**

Pets that display aggression in the veterinary clinic are fearful and defensive. Even pets that freeze or flee, may become aggressive if approached, cornered or restrained. If the pet learns that aggression is successful at removing the threat, the behavior is negatively reinforced. Fearful responses by the owner, veterinarians or staff, cause the pet’s fear and aggression to further escalate. In addition, physical restraint or confrontation can lead to fear and aggression. Even if the pet can be subdued to allow completion of the procedure, it increases fear and the potential for aggression at future visits.

**Minimizing fear from travel through procedures**

a) Discuss management of the pet during travel including positively conditioning the pet to the carrier or restraint device in advance. A pheromone spray or wipes (Feliway, Adaptil) might increase comfort
with crating and travel. Crates with top entry or a removable top are more practical for handling cats. Once adapted, begin to accustom the pet to the car gradually while pairing with high value rewards. A treat and train can also help to reward and countercondition remotely during car travel.

(b) Pet friendly veterinary environment – facility, scheduling and flow of activity.
Consider separate cat and dog waiting areas, minimal waiting times, and separate times of day for cat appointments. One study found that dogs may be more settled if given time to adapt, and that the weigh scale was the most stressful procedure. Therefore positive associations with weighing, or weighing pets while in their carrier or a towel wrap, with perhaps a short wait to allow the dog to adapt (while offering rewards) may be advisable. Be prepared to direct the pet into an open exam room. Book fearful pets when the clinic is least likely to be busy, and when staff can properly prepare for the visit. While pets with a recent veterinary visit are more likely to be stressed, pets with previous positive veterinary experiences will be less fearful.

Sensory input will strongly influence the outcome of the veterinary visit. Tone of voice, environmental sounds, visual stimuli, odors and tactile stimuli can either aid in calming or increasing anxiety. In addition, the emotional state of owners, staff and other pets can either help to calm or evoke fear. A soft, calm tone of voice can help to reduce fear while punishment and verbal reprimands can add to fear. Dogs and cats can detect pheromones as well as odors that communicate alarm or distress. Odors should be removed by cleaning thoroughly between patients and the use of animal odor eliminators. Adaptil and Feliway may also help to calm. Classical or pet specific background music may also help to calm as might a cover or blanket over a cat’s cage or a covering over the head or eyes. Avoid sudden movements, direct eye contact, or reaching for the pet. Approaching from the side can reduce anxiety. Also consider the surfaces to insure that they are comfortable and secure.

(c) Pet friendly handling
Train staff on how to physically manage pets with low stress handling and a minimum of restraint to insure a calm, positive outcome. Offer high value food treats or play toys to encourage and maintain a positive experience. Proceed slowly and monitor the pet’s body language to determine optimum handling and preferred location. For cats, while greeting the client and taking the history, open the carrier and allow the cat to come out on its own onto the floor, a chair or exam table. Approach slowly and avoid reaching, staring, or sudden movements. If the cat will not come out voluntarily try leaving treats in front of the carrier or enticing with treats or a toy. Avoid reaching in or grasping by the scruff. Instead remove the top of the cage and lift the cat out, with the aid of a towel if necessary. Some cats will be more comfortable remaining in the bottom of their carrier. Feliway may facilitate handling.

When performing procedures maintain the least amount of restraint necessary to achieve success, and allow the pet to select a position in which it would prefer to stand, sit or lie down. Use handling techniques that keep the pet safely and securely controlled. For cats, minimize hands on control by keeping a hand or towel in front of the cat to keep it from moving forward. Some pets will be more secure in the owner’s presence while others will be less fearful if the pet is removed from the room, or the pet is kept in the room with the owner asked to leave. For small dogs and cats a towel or blanket can be used to wrap or swaddle the pet or cover its head to help it feel more secure. Injections can be warmed to room temperature, given with a new small gauge needle, hidden prior to use and injected while the pet is distracted with treats, toy or stroking. Smaller volume vaccines and oral vaccines might be a less stressful alternative. Some cats accept and enjoy gentle massage between the ears.
d) Hospitalization
When pets are hospitalized consider the type of confinement that best suits the pet. Bedding for warmth and comfort, classical music, pheromone diffusers or sprays and aromatherapy may help to calm. Consider whether drugs are indicated to reduce anxiety, manage pain or sedate prior to the visit or prior to caging. For dogs depending on their sociability, the reason for hospitalization, the level of fear and noise levels, the best option might be to be housed in a ward with other sociable dogs. On the other hand, dogs should be isolated or a blanket or towel placed over the door of the cage, if they are stressed by the sights or sounds of other dogs. Food can be placed in manipulation toys or stuffed into chew toys to increase enjoyment and enrichment. An Adaptil diffuser in the dog wards may help to calm.Cats that are hospitalized may do best if kept in their own carrier sprayed with Feliway inside a hospital cage. Cages should have a perching area or level separate from the litter, a place to hide, bedding, litter and good or toys. Cat wards should be separate from dog wards to minimize sounds and odors. Classical music in the wards may further help to calm.

Approaches to Modifying Fear and Anxiety
At the earliest indication of fear or anxiety, cease the procedure, and reassess how best to proceed. Depending on the pet, the reason for the visit, and the owners, the options are a) to find an alternative way to successfully succeed b) to put off the procedure to determine how best to manage or treat the problem prior to future visits by desensitization and counterconditioning, modifications to the behavior management, behavior products and drugs or c) to use intramuscular sedation (if you can’t abate you must sedate).

a) Stop and revise: Management and low stress handling
Consider other options for approach, handling and restraint that might allow the visit to continue without further fear. Approach slowly and avoid eye contact, reaching, or sudden movements. Determine where the pet would be most calm: on the exam table, on the floor, or sitting on your lap. Consider pain control or sedation for procedures that might be uncomfortable or fear evoking. For cats avoid reaching into the carrier or grasping by the scruff. Instead remove the top of the cage and lift the cat out, with the aid of a towel if necessary or exam the cat in the bottom half of the carrier, perhaps covered or partially wrapped in a towel for comfort, security and safety. For small dogs and cats a towel or blanket can be used to wrap or swaddle the pet. Covering the head or eyes (e.g. with a blanket or thundercap) may further reduce the threat. The use of a head collar or muzzle for dogs may allow the procedures to be completed safely with a minimum of fear and anxiety. Other behaviour management products that might help in achieving calm and successful outcome are pheromones sprayed onto a blanket or towel for examination and procedures and the thundershirt or anxiety wrap. The application of pressure clips to the scruff of the cat’s neck, may cause behavioural inhibition in some cats, where the cat reaches a calm, semi-immobile trance like state. The procedure known as pinch induced behavioural inhibition or “clipnosis” may produce stress free restraint in cats. Not all cats are responsive including those that are stressed or fractious when handling the back of their necks. In addition, there are some concerns that clipnosis may be causing inhibition without decreasing fear. Therefore, the pet’s response should be carefully observed for signs of stress and distress, should these products be used.

b) Desensitization and counterconditioning – making veterinary visits positive
If the procedures are not immediately necessary, the visit should be postponed, and strategies implemented to make further visits fear free including desensitization and counterconditioning and how
the pet might be safely and positive managed. The pet will need to be exposed to each component of the veterinary visit to make positive associations using high valued rewards to the crate or restraint device (seat belt, head halter), car ride, handling, mock procedures, clinic and staff. Effective implementation, requires a dedicated and committed owner, good guidance and oversight and time to effect, beginning in the home and then with multiple fear free visits to the veterinary clinic, building gradually on success. However, this may not be a practical solution for some owners, some pets and some procedures. Another option is to administer anxiolytic medication in advance of the visit and to condition the pet to behaviour management products that might be required including a carrier, head halter or muzzle.

c) Sedation
If a delay is impractical or the owners are unwilling or unable to implement effective behaviour strategies, the third option is to use intramuscular sedation to proceed safely with minimal further stress for the pet. While toweling techniques, a head cover, or a leash and halter or muzzle for dogs, should provide a means for safely injecting with a minimum of stress, other behaviour management tools include control with an E-collar, safety gloves, a capture net or E-Z Nabber for cats, a squeeze cage for dogs or pulling the leash through a cage or door for restraint. An anesthetic induction chamber for cats or mask induction for dogs can be effective but anesthetic levels are more difficult to gauge and environmental exposure of anesthetic gas to personnel is an issue.

Pre-visit medications
For mild fear and anxiety in dogs, the use of pheromones, benzodiazepines (such as alprazolam, diazepam or lorazepam) or trazodone might be effective prior to the visit. Gabapentin and clonidine might also be considered. In cats, gabapentin, benzodiazepines and trazodone may be effective. When additional sedation is needed phenobarbital or acepromazine might be combined with the benzodiazepine, trazodone or gabapentin. As effects are variable a home trial in advance of the visit is recommended. Sedative effects have also been demonstrated in cats with oral transmucosal medications including buprenorphine (.03 mg/kg) plus dexmedetomidine (.02 mg) OR acepromazine (.05-.1 mg/kg). In dogs, transmucosal dexmedetomidine might be used at 0.01-0.04 mg/kg or a metedomidine gel. 21,22

Drug selection and use for fearful and anxious pets
Optimal and balanced sedation can be achieved with intramuscular injections of low dose dexmedetomidine (if no cardiac compromise), butorphanol (or an alternate narcotic), and midazolam (anxiolytic, muscle relaxant and amnesic effects). In more fractious patients the dexmedetomidine can be increased or ketamine added. In place of butorphanol, buprenorphine might provide more analgesia but less sedation and mu agonists such as morphine and hydromorphone might offer pain control, greater sedation and are reversible. Now that there is aflaxalone, the recommendation for cats would now include the opioid, midazolam and aflaxalone at 2 mg/kg. Acepromazine (.05-0.1 mg/kg) might be substituted into the combination in lieu of dexmedetomidine; however, in cats acepromazine may provide less reliable sedation. Dexmedetomidine is reversible with an equal volume of atipamezole im (and midazolam with flumazenil (.001-.01 mg/kg iv) and oxymorphone, morphine and hydromorphone with naloxone (.01 mg/kg).

Doses for oral pre-medication

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<tr>
<th>Drug</th>
<th>Dogs</th>
<th>Cats</th>
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<tbody>
<tr>
<td>Trazodone</td>
<td>4-12 mg/kg</td>
<td>50-100 mg / cat (for travel)</td>
</tr>
<tr>
<td>Clonidine</td>
<td>0.01-.05 mg/kg</td>
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</tr>
<tr>
<td>Drug</td>
<td>Dogs</td>
<td>Cats</td>
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<tr>
<td>Gabapentin</td>
<td>20 mg/kg (100 mg/cat)</td>
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<tr>
<td>Alprazolam</td>
<td>.02-0.1 mg/kg</td>
<td>.125 mg - .25 mg per cat</td>
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<tr>
<td>Diazepam</td>
<td>0.5-2.2 mg/kg</td>
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</tr>
<tr>
<td>Lorazepam</td>
<td>.05-0.5 mg/kg</td>
<td>.05-.25 mg/kg</td>
</tr>
<tr>
<td>Acepromazine</td>
<td>.5-2.2 mg/kg (combine with anxiolytic)</td>
<td>0.5-2.2 mg/kg (with anxiolytic)</td>
</tr>
<tr>
<td>Phenobarbital</td>
<td>5-10 mg/kg (combined with anxiolytic)</td>
<td>5 mg/kg (with anxiolytic)</td>
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### Doses for intramuscular sedation 23,24

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dogs</th>
<th>Cats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butorphanol¹</td>
<td>0.2 -0.4 mg/kg</td>
<td>0.2 -0.04 mg/kg</td>
</tr>
<tr>
<td>Dexmedetomidine²</td>
<td>0.005-.01 mg/kg</td>
<td>0.005-.01 mg/kg</td>
</tr>
<tr>
<td>Ketamine (if needed)</td>
<td>3 mg/kg</td>
<td>2 to 5 mg/kg</td>
</tr>
<tr>
<td>Midazolam³</td>
<td>.05-0.2 mg/kg</td>
<td>.05-0.2 mg/kg</td>
</tr>
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¹ Can substitute buprenorphine at 0.02-0.04 mg/kg, morphine at 0.2-1 mg/kg, or hydromorphone at .05-.2 mg/kg or oxymorphone .1 mg/kg for superior pain management and reversible

² Increase to .02 mg/kg if greater sedation required

³ Adding in to combination may provide anxiolytic, muscle relaxation and possible amnesic effect but may cause paradoxical excitation

**Dog:**
Geriatric or ill: Butorphanol .2 -.4 mg/kg + midazolam .2 mg/kg 24

**Cat:**
Geriatric or ill: Butorphanol .2 -.4 mg/kg + midazolam .2 mg/kg 24

### Reading and Resources

American Association of Feline Practitioners – [www.catvets.com](http://www.catvets.com)

See guidelines for Cat Friendly Practice, Feline Friendly Handling, Feline Friendly Nursing Guideline

Catalyst Council – catalystcouncil.org – Cat Resources and videos

Fear Free Initiative – dvm360.com/fearfree

International Cat Care – [www.icatcare.org](http://www.icatcare.org) – Cat Friendly Practice – Resources


Veterinary Anesthesia and Analgesia Support Group – vasc.org

8. Learn to speak dog and teach your kids: doggonesafe.com
9. Modern Dog Magazine ‘ How to Read Body Language’
11. How to read cat body language – Cat Channel http://www.youtube.com/watch?v=rihLUk9Xr1E, accessed February 2014