

STRESS REDUCERS FOR OUR FELINE FRIENDS

Janette L. Vani, DVM
Instructor of Veterinary Technology and Undergraduate Academic Advisor
Veterinary Technology Program
College of Veterinary Medicine
736 Wilson Rd,
A-5 Veterinary Medical Center
Michigan State University
East Lansing, MI 48824

Reducing the stress of our feline patients is important. To help reduce their stress, we need to understand our cat patients. By doing so, we will be able to provide stress relief that starts before our feline patients even leave their home environment, and that stress relief will continue throughout their visit to the clinic. By reducing our feline patients' stress level, we will be able to provide better care to our feline patients and a stronger bond with their owners.

Handling our feline patients is important because restraint is still being taught. The number one cause of aggression in our feline patients is fear, and the second cause is pain. When our feline patients become aggressive, it can lead to veterinary staff injuries. 52% of injuries reported by veterinary staff are from cats; and 53% of those injuries are from bites and 82% are from scratches. If we handle our feline patients with respect and help to reduce their stress, it is less likely that the number of these injuries will continue to happen.

By reducing the cat's anxiety and handling them with respect, we will be able to avoid stress, and therefore prevent fear, anxiety and pain in both the cat and the owner. We will be able to meet the special needs of cats and provide better feline welfare. By reducing stress, cats are less likely of becoming difficult to handle and injury can be prevented to all involved, including the cat, the veterinary team and the client. Reducing a cat's stress will increase the safety for that cat and for all people involved. There will be better efficiency and productivity of the veterinary team, as they will have increased job satisfaction because our feline patients will be more easily handled. When we handle our feline patients with care and reduce their stress, the clients are able to see the value in this, and the client will realize how much we actually do care about them and their cats. It will reinforce the bond between veterinarian, cat and owner. The owners will be more willing to comply with recommendations that are made regarding their cats, and they will bring their cats in for more routine visits. By increasing the number of times we actually see our feline patients, we will be able to provide better health care to them, as it will allow earlier detection of any medical or behavioral concerns.

In order to reduce their stress and to respectfully handle them, we must first understand the cat. Cats have retained behaviors of their ancestors, the African wild cat (*Felis lybica*). Cats are solitary hunters that eat multiple small meals (prey) per day. This allows them to hunt safely and to protect themselves. Cats like to have a sense of control over their surroundings, and when they do, it makes them comfortable and reduces their stress. Cats like their surroundings to be predictable and to have a routine, which enhances a cat's coping ability. By marking their territory with scent and pheromones, cats can establish a familiar territory. As a protective

response, cats have a heightened fear response; and in a stressful situation, the cat would prefer to avoid the situation or hide. Fighting occurs as a last resort, when the cat feels that they have no other way to get out of the stressful situation. Cats have a unique place in the animal kingdom hierarchy in that they can be both prey and predatory. In order to protect themselves, cats will avoid showing signs of weakness, pain or illness. Because of this, many owners see cats as being independent and not needing regular medical care, and owners may not recognize signs of illness until it has progressed. While cats are usually solitary hunters, they do have a flexible social system. They will choose who they affiliate with, which are usually cats that are their relatives. Cats will show mutual affection by allogrooming, allorubbing, resting or sleeping together, and playing together.

Kittens have a critical socialization period, which is 2 to 7 weeks of age. What they experience during this time can shape their responses for the rest of their lives. If they have positive experiences during this time period, these cats cope better with stress, display less fear and learn tasks more quickly. If negative experiences are encountered during this period, it may stay with them for years and may trigger fearful responses in their lives. Cats are constantly learning, even the older cats, and therefore, any negative experience they encounter can make them fearful and can cause fear associated aggression or flight at the next visit.

Cats communicate with their entire body all the time. Their communications are used to prevent active fighting over food and territory. A cat's sense of smell is far superior to ours and can detect chemical and olfactory signals. Unfamiliar scents to the cat can cause fear. Cats will mark their territory, which is a normal behavior, to protect themselves. Cats can mark their territory by scratching, rubbing their face and body on surfaces, and urine spraying. Cats have a more sensitive hearing than ours and can hear ultrasonic sounds, such as the chattering of mice. Because of their sensitive hearing, they may perceive noises as loud even when we think they are normal, and these noises can cause fear. A cat's vision is best in dim light, and they are very sensitive to movement. It is best to move slowly with our cat patients, as sudden movements may make them fearful. Cats can vocalize to communicate. Usually friendly communication is done with a mouth closed, whereas unfriendly communication is done with the mouth open. Cats use their whiskers to feel their environment. Since cats have whiskers all over their body, they are very sensitive to touch and may overreact if overstimulated. Cats also communicate by posturing. This is usually done with the face, tail and body. The face is more accurate to watch, as it will change more quickly. Some cats may increase their distance to avoid conflict. Some cats may bluff by displaying unfriendly signs to tell the intruder to "Back off".

Anything that is unfamiliar to the cat can cause fear. This can include unfamiliar smells, sounds, animals, people, or handling. When a cat is content and calm, it will appear relaxed and their ears will be forward. Fear responses may include freezing, fleeing, fiddling, and fighting. A cat that is freezing will try to make itself invisible and may have its ears back, pupils dilated and hunched body. A fleeing cat will try to get away to avoid the stimulus. When faced with a fear eliciting stimulus, a cat may fiddle and engage in a displacement activity, such as grooming. Fighting is a last resort. A cat that is ready to fight will have its ears back, be up on all fours, pupils will be fixated, and will be ready to fight.

Veterinary visits can be unfamiliar to our cats and cause them to feel a lack of control. This lack of control can start prior to the visit, even on the same day the appointment is scheduled, because of the way the owner is behaving. It continues with the cat getting into the carrier, riding in the car, and continuing at the veterinary hospital.

Reducing stress in our feline patients starts at home. It starts with the owner. The owner needs to stay calm, and we can help them do this by educating them. We can educate them on carrier training their cat and making that carrier a safe haven. The carrier needs to be familiar, and the owner needs to make it a positive experience. We should also make recommendations to the owner regarding the type of carrier to use. A hard sided carrier that is easy to take apart and that has an entrance on the top and on the side usually works best. This allows for the cat to stay in the bottom of the carrier if necessary. If an owner is insistent and prefers a soft sided carrier, then we need to educate them on getting one that has a large opening in the front and not on the sides, as this can make it difficult to get the cat in and out of the carrier.

Start when they are kittens to get them used to being in the car. It is best to take them on short trips and not to the veterinary hospital. There are many ways to help reduce the cats' stress in the car. Covering the carrier can help reduce stress by making the cat feel more enclosed. The carrier is safest in the car on the floor and in the backseat. The carrier can be wiped or sprayed with feline facial pheromones 10 minutes prior to putting the cat inside. Some cats may require nutraceuticals that are aimed at reducing stress and anxiety and helping to calm them down. Some include Composure™, Anxitane®, Solliquin®, and Zylkene®. Some cats may even require medications that help decrease anxiety, such as Gabapentin and Trazodone. Gabapentin is an anxiolytic, analgesic, and anti-epileptic medication that disinhibits aggression. In a capsule, the powder is tasteless and can be mixed into the food. It is not recommended to use the liquid form of Gabapentin, as many formulations contain xylitol. The dosage used is usually 100 mg per cat and is given 1.5 to 3 hours prior to the veterinary visit for peak effect. Trazodone is a serotonin antagonist and reuptake inhibitor that has been used and researched more in dogs. A recent study has shown that Trazodone is well tolerated in cats and that it can significantly decrease anxiety related signs without excessive sedation. Plumb's Veterinary Drug Handbook recommends starting at 25 mg/cat and titrating to effect. It should be given 2 to 2.5 hours prior to the visit for peak effect. Trazodone does need to be used with caution in animals that are already on serotonergic agents and/or monoamine oxidase inhibitors, as the animal could develop serotonin syndrome if given them both at the same time. While Alprazolam can also be used prior to visits, it does not disinhibit aggression in all cats. Motion sickness can also induce fear in cats. These cats should have no food or water for 3-6 hours prior to the visit, can be given Gabapentin, and may need anti-nausea medications, such as maropitant. The American Association of Feline Practitioners and Catalyst Council have many client resources available, including handouts and videos.

At the veterinary hospital, cats can become fearful because of the many unfamiliar senses they are exposed to. Since cats have an excellent sense of smell, we need to clean the surfaces that cats were on to manage the odors and get rid of the pheromones that may be present. We should use synthetic feline facial pheromones in the room and enticing smells, like treats and even

catnip, as long as the cat does not get overstimulated by it. The hospital should be a quiet environment, since cats have an acute sense of hearing. A recent study looked at auditory stimulus in cats under general anesthesia and found that playing classical music can decrease perceived pain, anxiety and stress in cats. Cats should be kept away from other cats and other animals. They should be placed in the room as soon as possible. Standing in front of a cat and staring at them are perceived as threats, so we should be on the same level of the cat, avoid direct eye contact, and go slowly with minimal movement. When touching the cat, we should stick to the head and neck. There is an acupressure point on the top of their head between their ears that can be massaged. One hand should always be kept on the cat, so the cat can adjust to any changes. The cat should be allowed to make the first move, so it has a sense of control of its situation.

When a cat requires hospitalization, we need to make sure that we address the five pillars of the environment for the cat. We need to provide a safe place, and we need to make it familiar. Having something from home and providing a sense of enclosure can make the cat feel safe. There should also be a separate areas for the cats and they should not be able to see other cats. Multiple and separate key resources should be provided to the cat. Toilet areas should be separated from food and water areas, not right next to them. An opportunity for play should be provided with toys and allowing the cat if appropriate to get out of the cage. Consistent and predictable interaction with the cat should be provided by the same caretaker. The cat should be allowed to make the first move and to end the interaction. An environment that respects the importance of the cat's sense of smell should also be provided. This can be achieved by spot cleaning the cages, so the cat's scent is still retained. Synthetic feline facial pheromones, such as Feliway®, can be used anywhere in the hospital where the cat is going to be, including rooms, waiting areas, carrier, towels, and cages. It has been shown to reduce fear and anxiety in cats and to increase food intake and grooming in hospitalized cats.

The way that cats are handled or restrained can lead to fear, as the cat can feel a lack of control. The cat should be allowed to make the first move, and we should initially observe their posturing from a distance. Allow the cat to be where it wants to be, including during the exam, as this will increase the cat's sense of control over the situation. This may be the bottom of the carrier, the floor, the scale, or even a lap. Hiding is an important coping mechanism for cats, and we should allow the cat to feel hidden and to avoid the situation. Cats feel more secure when there is something around them. This should be incorporated in every aspect of the hospital from the exam, to collection of samples, and to hospitalization. Cats should be carried in their carrier or a snugly wrapped towel. A towel can be provided for them to hide under during the exam and when hospitalized. We can even face the cat away from us. "If the cat can't see us, then we aren't there." We should avoid scruffing, stretching, staring, and making shushing sounds. Minimal handling is best, and the cat should be removed from the carrier only once if at all possible. One handler is ideal with a hand placed on the cat at all times, which allows the cat to anticipate what is going on. Two handlers can be used if needed, but if more than two are required, then it is time to use sedation or anesthesia for the cat. We should stick to touching the cat around the head and neck and center on the acupressure point. By placing the thumb and pinky finger on either side of the cat's ears and the three middle fingers over the acupressure

point on the top of the cat's head can be safer than scruffing. We can also use our whole body to help handle the cat. Cats can sense emotions and so we must remain calm at all times. If we tightly restrain the cat, we can cause pain, which in turn will cause the cat to become fearful. If a painful procedure is anticipated or the cat appears painful, then appropriate analgesia should be given prior to the procedure.

While the cat is at the clinic, every effort should be made to reduce the cat's stress. The cat should enter the exam room ideally as soon as it enters the hospital. Once inside the room, if the cat's temperament allows, the carrier door should be open, and the cat should be allowed to explore the room. If the cat does not want to leave its carrier, then it should be allowed to stay in it. Initially, the cat should be ignored, assessed for a distance, and discreetly enticed from the carrier using treats, toys or catnip. The cat should not be forced out the carrier, but instead the carrier should be taken apart. The cat can be easily examined in the bottom half of the carrier with a towel or blanket over the top of the cat. If the cat is exploring the room, allow the examination to take place wherever the cat wants. This will decrease the cat's fear and aggression, because they will feel that they have a sense of control over the situation. It is also perceived as value to the clients. When examining the cat, it should proceed in an order that is based on the individual cat. If there is an area that is known or perceived to be painful, the cat should be administered analgesia and that portion of the exam should be examined last. The ophthalmic and otoscopic exams should be performed from behind with the retinal exam done at the very end. When weighing the cat, the scale should be nearby, and a small scale with sides can help to make the cat feel enclosed. Treats can be used to try to entice the cat onto the scale. The cat can also be weighed in the carrier with the carrier weight being noted on the medical record, but the owner needs to make sure that everything that is inside the carrier is the same at every visit. It is best to avoid taking the cat out of the room when collecting samples. By allowing the cat to stay in the room with the owner, we will get more accurate results, it is easier on both the cat and the client, and it is seen as increased value by the client. When collecting samples, the cat should be allowed 10 minutes to acclimate to their new surroundings (this can happen while you are getting the history and performing the examination). The cat should be held in a natural position with minimal restraint. When a cat is staying in the hospital, a consistent caretaker should be designated to that cat. The cage should be approached from the side, and the cat should be allowed to come to you first. The cat should have a place to hide in the cage, such as a bed or a box. If the cat is hiding, then the cat should be taken out of the cage in the bed or box.

At the end of the hospital visit, findings and instructions should be reviewed. A demonstration of the first dose of meds should be performed to show the owner how to gently handle the cat when giving medications. It is recommended to give medications to the cat in a comfortable place and to provide positive rewards afterwards. The cat should not be pulled from a hiding place, interrupted while eating, or interrupted while eliminating to be given medications. A bathroom sink with a nice towel or fleece can provide a comfortable place while containing the cat during medication administration. Other options for medications should be discussed as needed with the owners, including different formulations, decreased frequency, and increased palatability. The owners should also be educated on how to introduce the cat back into the

household especially if there are other cats at home and how to improve the next visit. Cats may need to be brought to the hospital together. When getting home, the cats should be monitored before being let out of the carriers. If there is evidence of conflict, then the cats should be separated for 24 hours. If they are unable to be introduced in 24 hours, then the owners should be told to call the clinic. It is important that we educate the owners to remain calm at all times prior, during and after the visit.

When we have fearful cats, we need to provide for them. A calm cat should be given the option to hide, which will help to keep them calm. A freezing cat wants to be invisible, and they should be given a place to hide. A cat that is trying to get away and is fleeing needs a place to hide. These cats should not be chased, but they need some space. In healthy cats that are fleeing, it may be best to send them home with some anti-anxiety medications and have them come back at another time. The cat that is willing to fight feels that it can't hide or flee, so it will start by bluffing and if that fails then it will attack. Fear levels can change quickly in cats, in a matter of 45 seconds or less. It is important to remain calm and never punish the cat. Use towel techniques with all four feet on a surface to keep cats comfortable. If a muzzle is needed, use a plastic muzzle and come from the side or behind, not from the front. Use analgesia if the cat is painful or if the procedure could induce pain. Don't be afraid to use sedation or anesthesia if needed, and do it before the cat loses it.

Reducing the stress for our feline patients is beneficial to all who are involved. Start at your clinic by developing a plan of how you can reduce the stress for your feline patients. Develop standard operating procedures and share the learning with all of the veterinary staff. Take small steps at a time to implement these changes. Think about becoming a Cat Friendly Practice. There are lots of helpful guidelines, handouts, and videos to help implement these techniques from the Catalyst Council and American Association of Feline Practitioners. By treating our feline patients with the respect and care that they deserve, we can help to strengthen the bond with our feline patients and their owners and to provide better health care to our feline friends.

Useful Resources:

AAFP and ISFM Feline-Friendly Nursing Care Guidelines.

AAFP and ISFM Feline-Friendly Handling Guidelines.

AAFP and ISFM Feline Environmental Needs Guidelines.

AAFP videos for veterinary professionals and owners-

<http://www.catvets.com/education/online/videos>

Catalyst Council videos-www.catalystcouncil.org/resources/video/.

References:

1. Little S. (2013, January). Feline Friendly Handling and Nursing Care Guidelines. Presented at North American Veterinary Conference, Orlando, FL, 2013.

2. Carney HC, Little S, Brownlee-Tomaso D, et al. AAFP and ISFM Feline-Friendly Nursing Care Guidelines. *JFMS*, 2012; 14: 337-349.
3. Rodan I, Sundahl E, Carney H, et al. AAFP and ISFM Feline-Friendly Handling Guidelines. *JFMS*, 2011; 13: 364-375.
4. Ellis SLH, Rodan I, Carney HC, et al. AAFP and ISFM Feline Environmental Needs Guidelines. *JFMS*, 2013; 15: 219-230.
5. Rodan I. (2016, September 15). Feline-Friendly Handling [Webinar]. Retrieved from: <http://catvets.wcea.education/searchOnlineTraining#/training/161798>.
6. Feliway. www.feliway.com/us/#redirected. Ceva pharmaceuticals.
7. Catalyst Council videos. www.catalystcouncil.org/resources/video/.
8. Anxitane. <http://www.virbacvet.com/products/detail/anxitane-l-theanine-chewable-tablets/behavioral-health>. Virbac.
9. Sueda KLC, Cho J. Trazodone. *Plumb's Therapeutics Brief*; July 2016: 55-57.
10. Stevens BJ, Frantz EM, Orlando JM, et al. Efficacy of a single dose of trazodone hydrochloride given to cats prior to veterinary visits to reduce signs of transport- and examination related anxiety. *JAVMA*; 2016: 249 (2): 202-207.
11. Composure for cats. http://www.vetriscience.com/index.php?l=product_detail&p=9008103030. VetriScience Laboratories.
12. Solliquin for cats. <http://www.nutramaxlabs.com/cat/cat-behavioral-health/solliquin-for-cats>. Nutramax Laboratories.
13. Rodan I. Understanding feline behavior and application for appropriate handling and management. *Topics in Companion Animal Medicine*; 2010: 25(4):178-188.
14. Mira F, Costa A, Mendes E, et al. Influence of music and its genres on respiratory rate and pupil diameter variations in cats under general anesthesia: contribution to promoting patient safety. *JFMS*, 2015; 1-10.