Understanding the Cat and Feline Friendly Handling
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Introduction
The goals of feline handling are to protect humans and cats, and to allow us to successfully accomplish what needs to be done with each feline patient. Until recently, and even today at most veterinary and technician schools, students have been (or still are) taught feline restraint as a tool to prevent human injuries, protect against zoonoses, and to limit movement in order to perform patient care – these reasons must continue to be a priority! Unfortunately, restraint also can increase fear and fear-associated aggression in many feline patients, subsequently reducing human safety and patient comfort. Handling techniques based on understanding of the feline species and its fears greatly reduce human injury, feline fear and pain, and are more effective and efficient.

With feline-friendly handling, clients will be more amenable to bringing their cat to the veterinary hospital for regular healthcare, thus strengthening the human-animal-veterinary bond, and improving both feline and human health and welfare. Also, job satisfaction and greatly reduced injuries will occur, making it more satisfying and fun to see more feline patients.

This lecture will help you understand the cat and to learn “Feline-Friendly” handling techniques based on that understanding. These techniques prevent feline fear and pain, as well as preventing human injury in the veterinary hospital. The entire flow of the appointment can be improved, starting from getting the cat to the veterinary hospital to respectful handling during examinations, sample collections, treatments, procedures, and getting cats out of cages.

Understanding the cat:
To understand cats, we must understand their origins and early history. Felis catus has retained many of the behaviors of its wild ancestor, Felis lybica, the African Wildcat. Felis lybica, a semi-arboreal feline, whose jumping and pouncing abilities, and keen senses have led to their successful survival as a solitary hunter, still exists today in its original environment in Africa.

The relationship between cats and people started about 10,000 years ago in the Fertile Crescent where cats were attracted to the rodents that would eat the humans’ grain.¹ This mutualism required no modification or genetic selection of the cat’s innate behavior.²⁻³ This differs from other or more domesticated species, such as the dog, in which specialized breeds for hunting, herding, or guarding have been established. Most feline behavior and communication has been adapted to allow the cat to be a successful solitary hunter, protect self, and avoid physical conflict and subsequent injury; believe it or not, cats do not want to bite or scratch us – they just want to be safe! Understanding that is the clue to working with cats in more respectful and safe ways.

Protective mechanisms of solitary hunters: As solitary hunters, cats must maintain their physical health and avoid danger, so that they have the strength to hunt successfully each and every day. They do so by maintaining their familiar territory in which they have a sense control over their physical and social environment.⁴ Having a sense of control, even if it is not exerted, makes the cat more comfortable and reduces stress.⁵
To protect selves, cats possess heightened fight-or-flight responses in response to fear. If cats are forced to leave their familiar territory (e.g., to go to the veterinary practice) or a suspected threat enters their territory (e.g., a home veterinary visit), they respond to the confrontation by avoiding or hiding, with fighting occurring only as a last resort. The 4 main responses to fear—freeze, fiddle or fidget, flight, and fight—are normal feline behaviors derived from predator avoidance. The cat prefers any of the first 3 responses, fighting only as a last resort. Another protective mechanism is to avoid showing outward signs of weakness, pain, or illness. Unfortunately this important survival adaptation often delays recognition of illness and has led to the mistaken impression that cats are independent and don’t need regular medical care. Educating clients about the importance of preventive care and how to recognize the first signs of illness - subtle changes in behavior - will provide improved feline health and welfare.

Feline senses are adapted for hunting, and are generally far superior to ours. The cat’s vision is specialized to see in dim light when their prey is usually present, and to identify rapid movements to successfully catch prey. Cats may become aroused with rapid movements in the veterinary hospital. Cats can hear very high frequencies, including the ultrasonic chatter of rodents. Loud and unfamiliar sounds can be frightening. The cat has an acute sense of smell, and feline pheromones are important in feline communication. Unfamiliar scents can frighten and arouse cats. Providing familiar scents such as that of a favorite person can help a cat adapt to new situations. Synthetic feline facial pheromone analog mimics the natural pheromone that is deposited when a cat rubs its face on objects, and has been shown to provide a calming effect in unfamiliar or stressful environments or situations.

Feline communication: Much of feline communication acts to prevent altercations with other cats over food and territory, and avoid the risks of active fighting. Fighting only occurs when other means of communication have failed. Cats use olfactory, visual, auditory, and tactile communication.

Olfactory communication plays an important role in social behavior. It enables hunting cats to communicate remotely by marking a territory as their own with a long-lasting signal. The sebaceous glands located around the lips and chin deposit the cat’s scent by rubbing or marking on others or objects. The interdigital sebaceous glands leave olfactory signals through scratching, and the perianal area glands through spraying, and occasionally with urination and middening (fecal marking).

Visual Communication: Cats communicate with a range of subtle body postures, facial expressions, and tail positions to diffuse tension and avoid physical contact with unfamiliar cats. Body postures help us identify a fearful cat from a medium-ranged distance. Facial signals, especially changes in pupils and ear position, change more rapidly than body postures and provide more immediate indications of a cat’s fear and aggression level.

The cat perceives staring (especially by an unfamiliar person) as a threat. Since most people are visual, we may inadvertently stand in front of and look directly at a cat and induce fear. Standing to the side and not directly looking at a cat that considers us unfamiliar or threatening will reduce fear. Additionally, blinking signals that the cat is seeking reassurance in a tense environment; we can help comfort the cat if we blink slowly or make “winky-eyes” in the direction of the cat. Cats are often calmer if they can hide, eliminating the visual cues.

Vocal Communication: The trill and meow are friendly greeting calls. Cats also vocalize when communicating with humans, and they learn quickly how to get humans to respond to their vocalizations for food and attention. Cats purr when content, but may also purr when sick or dying; the purr solicits contact and care. Cats hiss, growl, or shriek in...
defense or aggression.  

**Tactile communication:** Affiliate cats engage in allorubbing (rubbing against another); they will do this with people or other species as well if socialized. Allogrooming occurs primarily on the head and neck; these are preferred areas for physical touch and cats may become upset if petted in other areas. This information is very helpful to handle cats in the practice.

**Feline-Friendly Handling from beginning to end of veterinary visits**

**Getting the cat to the vet**

Most clients haven’t been taught how to get the cat into the carrier in a way that is easier for the cat; instead, the cat may be chased around the house and shoved into the carrier, which is where fear starts for many of our feline patients. This often results in fear at future visits starting as soon as the carrier comes out at home.

Client education prior to the veterinary visit can make all the difference. Ask if they have a carrier. If so, clients should be educated to keep the carrier out always in a place where the cat likes to be so that it is familiar. Make it a comfortable and familiar place, and allow the cat a sense of control or choice to enter the carrier. Do not push the cat into the carrier or close to it, but rather entice by calmly putting a treat in the carrier each day and reward when the cat goes near or into the carrier.

If the clients don’t have a carrier or if the cat is highly fearful of the existing carrier, recommend that they purchase an inexpensive hard-sided plastic carrier that allows the top half of the carrier to be removed so that the cat can remain in the bottom half for part or all of the examination. Preferred carriers are those that are easiest to take apart in the middle, and also have 2 openings – one on top and the other in the front; it makes it easier to get the cat into and out of the carrier (e.g., gently putting them into the carrier through the top opening instead of shoving them into a small front opening). Hard-sided carriers can also be easily seat-belted in to prevent jostling, and increase safety for the cat.

Clients should also be taught to reward or reinforce desired behavior, and to *never* punish the cat– either verbally or physically. Encourage the client to bring favorite treats, toys, or grooming utensils as well, so that they can be used to entice the cat to come out of it’s carrier and/or to reward or reinforce desired behaviors.

Because anxiety can inhibit learning, cats with a history of being anxious on car rides and/or veterinary visits may require anxiolytic (anti-anxiety) medication. Alprazolam is a short-acting benzodiazepine, with a rapid onset of action that can prevent anxiety or distress associated with veterinary visits. The starting dose for alprazolam is 0.0125-0.025 mg /kg PO; in the speaker’s experience, higher doses are usually needed, averaging approximately one-half 0.25mg tablet per 10 pound cat given one hour before the appointment time. Alprazolam works well in conjunction with food treats, and other rewards. Gabapentin administered 90 minutes prior to the appointment is also very helpful to reduce stress at the veterinary practice.

Travel should be on an empty stomach to prevent motion sickness, and increase interest in treats at the veterinary hospital, allowing for a more positive experience. A synthetic feline facial pheromone (FFP) analog sprayed into the carrier approximately 15- 30 minutes before travel, has a calming effect on the cat. Draping a blanket over the carrier can also help prevent fear and motion sickness. If the cat is still nauseous – lip-licking, drooling, or vomiting during transportation - maropitant (Cerenia) is recommended to prevent motion-sickness.

**The History:** Collect the history in the exam room. If possible, take the cat directly to the exam room to reduce the fear associated with the activity, noise and
other animals in the reception area. Once in the exam room, and if the cat is not lunging or hissing, open the carrier door and allow the cat the choice to sniff or explore the room while we greet the client and review the cat’s history. Tossing or quietly placing catnip or treats near the carrier can entice the cat to venture out on its own. Assess the cat’s reactions to the environment discreetly while obtaining the history, and evaluate respiratory patterns, gait, and body postures from a distance. Many cats are likely to come to us if we initially communicate with the client and “ignore” the cat; allow them to have the sense of control to initiate the contact when possible.

**The Examination:** Give the cat a sense of control by allowing the cat to be examined where the cat wants to be and in the most comfortable position(s) for the cat. The cat may be examined while on a small scale, the floor, a bench or shelf, or in a lap. Many cats prefer being examined when they are on the familiar blanket or clothing from the carrier, which already has the cat’s scent. Other cats are comfortable sitting next to the client and do well as long as the cat isn’t aroused, and the handler is astute to the cat’s body language to ensure that the cat is removed immediately from the location if it becomes aroused. Cats that like sitting on laps are often comfortable in your lap; face the cat so that it doesn’t need to see you. If the cat is calm, it can face the family member; if the cat is anxious, allow the cat to hide its head. Further, leaning against your arm or body will often make cats feel more secure, because they do not feel as if they might fall. This also allows us to recognize the cat’s tension, and even helps identify pain more easily.

If the cat will not leave the carrier voluntarily, quietly and calmly remove the top half of the carrier, so the cat can remain in the bottom half for as much of the exam as possible.

Many of us have been taught to dump the cat out of the carrier, but this is frightening for the cat, not allowing for sense of control or exploration of the environment. If the cat is highly aroused, slowly slide a towel between the top and bottom of the carrier while the carrier top is removed; this provides a safe hiding place for the cat and helps protect the handler. The exam can be performed with the cat hiding under the towel and inside the carrier for the major part of the examination.

Tailoring the order of the exam and reserving areas that the cat doesn’t like touched to the end the exam process easier for painful and anxious feline patients; instead of the usual order of starting at the head and working to the tail, examine the non-painful areas and those that don’t arouse the cat as much first. This also allows us to administer an analgesic such as transmucosal buprenorphine early on so that it is effective by the time we get to painful areas.

For painful patients or when performing painful procedures, use analgesia +/- anesthesia to prevent pain-associated aggression. A painful cat may be tense on examination in an attempt to protect self or palpation may identify a localized area of pain. Arthritis is common in senior cats, and cats often have chronic painful conditions. Gently handle, and provide analgesia to facilitate the exam and to keep the patient as comfortable as possible.\textsuperscript{15,16}

Towel techniques often help calm a reactive cat, and protect the handler, while allowing examination of different parts of the body and lab sample collection. Covering the head with the towel usually reduces reactivity and fear by preventing visibility of unfamiliar individuals and what they are doing.

Distract anxious cats by engaging them in an alternative behavior that is incompatible with the fearful or anxious behavior, such as playing with an interactive toy or laser pointer,
eating treats, or rubbing on catnip. Gently pet the cat behind the ears, rubbing under the chin, or massaging the forehead between the ears and eyes – note that these are areas of preferred touch for the cat - to calm and divert attention away from procedures being performed. In most situations, the examiner can handle the cat alone.

**Lab Sample Collection:** Collect samples with the least amount of people and minimal handling. Usually only one holder is needed. Speak softly or distract with food, treats, or toys. Allow the cat to remain in a natural position, and without stretching or holding legs tightly. Have a blanket or something soft for them to lie on, preferably one that smells like home. Older, arthritic, and underweight cats are especially uncomfortable on cold and hard surfaces, and need thick padding or fleece underneath them. Gently wrapping the cat in a towel can increase security.

Senior cats and cats of any age with chronic kidney disease or hyperthyroidism should have blood pressure measurements taken. Blood pressure should be measured before other diagnostic tests, while keeping the patient as relaxed and calm as possible to avoid white coat hypertension. A quiet environment in which there are no unfamiliar animals, and generally with the owner present are the best techniques.

Measuring blood pressure is best conducted in the exam room, rather than in the treatment area, because it takes 5-10 minutes for the cat to acclimate to a new room. What works best in my practice is to obtain the history and perform the examination prior to blood pressure measurement while the cat acclimates to the exam room.

It is best to collect all lab samples in the examination room to prevent additional fear for the cat. Many clients prefer to watch blood pressure evaluation, venipuncture, and cystocentesis instead of worrying about what’s happening to their cat “in the back”. It is great client education and increases perception of value. If the client prefers not to watch, they can wait in the reception area while samples are collected in the exam room.

When all procedures are completed, allow the cat to return to the carrier if it wishes to while the client is educated about necessary treatments and next veterinary visits.

**Getting a cat out of a cage**

Removing a cat from the cage can be the most difficult handling that we do. The cat is often highly frightened because the environment doesn’t provide for its resources, there is no space to hide, and they see a large individual standing in front of them forcing them to do something that they are fearful of.

Standing to the side of the cage, and offering the cat a choice to come to you helps alleviate the fear and potential danger to the handler. Allowing the cat to hide in a tall cat bed or in its carrier makes the cat feel safer and picking up the cat within that bed or carrier is much safer for us.

**Returning home**

Following hospitalization, and occasionally even for cats returning from appointments at the veterinary hospital, other cats in the household may not readily accept the returning cat because they don’t recognize its scent. Feli-way and/or he scent of family bedding can help. Keeping the returning cat in the carrier until all cats are calm, usually within the first hour, prevents much hissing and threat to the cats that didn’t go to the veterinary hospital. In some situations, the cats may need to be separated into separate parts of the house as done when introducing a new cat to the household. Clients should be reminded to ignore any hissing or screaming and reward positive interactions, such as being in the same area without hissing. It often helps to take both (or all) cats to the veterinarian at the same time for future visits, even
when only one has a scheduled visit.

Conclusion

Fear and pain are the most common causes of feline aggression at the veterinary hospital. Knowing this, along with understanding the cat can help us provide safer handling techniques for our feline patients. The primary goals of improved handling techniques are decreased fear for our feline patients; more knowledgeable and relaxed cat clients, increased safety of patients, clients, and veterinary teams; increased numbers of feline veterinary visits, and increased feline healthcare and welfare.

REFERENCES:
