Feline handling in the veterinary hospital is important to protect both people and cats. Restraint has been used to enable us to perform our duties as veterinarians. With increased knowledge of feline behavior and how cats react to fear, newer information provides us with safer handling techniques. With safer and more respectful handling based on understanding the nature of cats and their communication, we can improve feline health care in our hospitals, the human-animal-veterinarian bond, and the welfare of both cats and people. This article explains important aspects of feline communication and how our actions affect cats. By understanding the cat, we can improve our handling techniques to prevent fear and pain for our feline patients, and thus make our veterinary practices more feline friendly and safer for our clients, their cats, and veterinary staff. © 2010 Elsevier Inc. All rights reserved.

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Feline medicine has advanced dramatically over the past few decades, and the cat has become the most popular pet in the United States and Northern Europe. Cats have moved from outdoor “mousers” into our homes and our hearts. Most owners consider the cat a family member. Nevertheless, many feline patients do not receive regular veterinary care, and 72% of cats visit the veterinarian less than once a year compared with 42% of dogs. Important reasons include how challenging it is to get the cat to the veterinarian, how the cat reacts at the veterinary practice, and how the cat is handled. Little information is available to make veterinary visits more pleasant for cats, clients, and the veterinary team. Although one might think that this area does not require advanced education, how we handle our feline patients affects their health and welfare. Although most clients do not recognize our medical knowledge and surgical skills, they do recognize how we communicate with them, and how we handle and work with their beloved feline family members. Our advanced education serves us poorly, if our patients do not visit our clinics and our clients do not comply with our recommendations.

Restraint was instituted early in veterinary medicine as a tool to prevent injury from veterinary patients. Restraint of cats helped prevent cat bite and scratch injuries to humans, protect against zoonotic diseases (e.g., cat scratch disease, rabies), and limit patient movement during veterinary procedures. Safety must continue to be our priority. Unfortunately, restraint also increases fear and fear aggression in many feline patients. As clients become strong advocates for their feline family members, liability issues concerning cat restraint have become more common.

Fortunately, newer information helps us understand the nature of the cat and to identify best handling techniques to replace traditional restraint methods. This article presents information to help understand the cat, and the importance of incorporating this knowledge into our veterinary practices. We will thus create an environment that is more respectful, less stressful, and safer for the veterinary team, the client, and the cat. Ultimately, improved handling will increase feline veterinary visits, strengthen the human-animal-veterinary bond, and improve both feline and human health and welfare.

Understanding the Cat

Imagine for a moment that you are a cat, sleeping in a sunny spot. Your favorite person brings out this box that you associate with negative experiences. You run to hide, but your person reacts uncharacteristically, chasing you around the house, then grabbing you, and shoving you into that box. You are then carried, jostling back and forth, subjected to a scary ride to an unfamiliar place where people treat you in ways that are unfamiliar, uncomfortable, and frightening. How would you react?

To understand cats’ behavior at the veterinary hospital, we must first understand their social nature, their perception of the world, their communication, and their fear responses. With this knowledge, we can educate students, veterinary
team members, and clients so that veterinary visits become more pleasant for all.

The relationship between cats and people started about 10,000 years ago. At first, it was a mutual relationship: cats were attracted to the rodents that would eat the human’s grain. This mutualism required no modification (or genetic selection) of the cat’s innate behavior.4 Other domesticated species, such as the dog, have been modified, producing specialized breeds for hunting, herding, or guarding. In contrast, domestic cats retain many aspects of their wild predecessors. They are true carnivores with keen senses for hunting, can perceive and avoid danger, and possess heightened fight-or-flight responses.5 Sadly, because signs of feline illness and pain are very subtle and not well recognized, many owners mistakenly believe that cats fend for themselves and do not need regular veterinary care.

Only recently have people recognized the intricate social structure of cats, likely because it differs significantly from that of humans or dogs. With sufficient food resources, free-living cats will choose to live in social groups, called colonies.6,7 The colony’s social organization is based on females cooperatively nursing and raising the young.6 Aggression generally is directed toward unfamiliar, nonmember cats.8 Within a colony, cats will choose preferred associates or affiliates. These cats demonstrate affection by allogrooming—grooming each other, especially on the head and neck—to maintain the colony odor.8,9 With gradual introduction, many cats—regardless of gender—can become affiliates (Fig 1).

Kittens become more social and calm around people if the queen herself is well-socialized and calm around people, and if kittens are with their mother when they are introduced to people.9 The sensitive period for socializing to humans is the time during which particular events will most likely have long-term effects on development; for kittens this is as early as 2 to 7 weeks of age, much earlier—and briefer—than for puppies. Kittens that have positive handling experiences during this period cope with stress better, display less fear, and learn tasks more quickly than kittens that are not handled during this period.9 Many older kittens—indeed, cats of any age—can still learn and adapt to humans and new experiences; however, they may need multiple positive experiences and more time than do kittens during the sensitive period.

Although social, cats are solitary hunters, hunting several times each day for small prey. Solitary hunters must maintain their physical health and avoid fights with others whenever possible. Thus, much of feline communication acts to prevent altercations over food and territory, and avoid the risks of active fighting.10,11 Cats practice avoidance in the veterinary hospital (fighting is the last resort); by understanding the cat’s communications and body postures, we can reduce aggression. Further, we can interact better with the cat once we recognize that the cat’s perception of the world is based on its senses, most of which are far more acute than ours.

How Cats Perceive the World

Hearing

Compared with humans, cats hear a broader range of frequencies, including ultrasound, so they can hear the ultrasonic calls or chattering of rodents.5 Their movable pinnae help localize sounds.

Smell

Cats have an excellent sense of smell, with 5 to 10 times more olfactory epithelium than humans.12 They also have vomeronasal organs (Jacobson’s organ) located in the roof of the mouth behind the upper incisors.13 The Flehman response occurs when the vomeronasal organs detect the odors of other cats.13

Vision

Cats’ eyes are adapted to detect movement quickly, even in dim light—ideal for predation, making them successful hunters. Consequently, rapid movements, especially if unanticipated, will likely heighten a cat’s responses and make a patient more reactive. The guideline for working with cats is: “slow is fast and fast is slow.”

Tactile

Cats have epidermal units (Merkel cells, Ruffian endings, and vibrissae) that discharge rapidly, making cats highly sensitive to touch.4 This is why an aroused cat may respond aggressively even to gentle petting or stroking.

Multiple stressors, involving auditory, visual, olfactory, and tactile stimuli, are typically found at the veterinary hospital. The accumulated stress arising from multiple stimuli can exceed the sum of the stress from the individual components.14

Feline Communication

As noted above, the primary goal of cat communication is to prevent altercations, and cats fight only as a last resort, when
other communications have failed. Cats use visual, olfactory, auditory, and tactile communication. By understanding feline communications, we can recognize fear in our feline patients, and thus prevent many aggressive acts at the veterinary hospital.

**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. Understanding these postures enables us to recognize—and reward—calm behavior and to prevent fear from escalating to a degree that can lead to injuries to all involved.

Body postures help us identify a fearful cat from a distance. Facial signals, however, change more quickly and provide more immediate indications of a cat’s fear and aggression level. Erect ears show the cat is alert and focusing on a stimulus. Ears swiveled downward and sideways indicate a defensive cat. Ears swiveled to display the inner pinnae sideways indicate an aggressive cat. The most instructive feline signal is the pupil. Slit pupils indicate a calm cat, widely dilated pupils signal fear and the fight-or-flight response, and oblong pupils signal aggression. Pupil size generally correlates to the intensity of the situation. Cats innately understand these subtle differences and use them to prevent fights. Humans can rely on these indications, but must keep in mind that ambient light and certain medical conditions or pain can also affect pupil size (Figs 2, 3, 4, 5).

The cat’s tail is remarkably expressive. A tail held up vertically or wrapped signals relaxed, friendly intentions. A tail held straight down or perpendicular to the ground communicates offensive postures. A tail lashing vigorously from side to side indicates an agitated, annoyed, or aroused state.

**Olfactory Communication**

Olfactory signals play an important role in communication and social behavior. They enable hunting cats to communicate remotely, for example, 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 on objects, other cats, and/or people. The interdigital sebaceous glands leave olfactory signals through scratching, and the perianal area most commonly leaves the scent when cats urine spray, but also with urination and middening (fecal marking). Spraying is usually a normal olfactory communication among cats (although intercat conflict in a household can induce spraying).
Vocal Communication

Most feline vocalizations bring cats together; 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) and allogrooming, and they often lie close together. The head and neck are preferred areas for physical touch; cats may become upset and even aggressive if people pet them in other areas.

Causes of Feline Aggression at Veterinary Visits

Several misconceptions exist about causes of aggression at the veterinary hospital. Some describe the more difficult-to-handle feline patients as “evil,” “naughty,” or “spoiled”; others believe that dominance causes feline aggression at the veterinary hospital. These beliefs are incorrect.

Fear is the most common cause of “bad behavior” and aggression in cats at the veterinary hospital. Fear is an emotional response that stimulates an animal to avoid potentially dangerous situations and activities. Cats like familiarity and are comfortable with the sights, sounds, and smells of their own environment; when placed in unfamiliar environments or with unfamiliar people, cats often become fearful. Fear-associated aggression can also occur in cats that have been poorly socialized or punished. Other common causes of fear in the veterinary hospital include forceful restraint, loud noises, unpleasant smells, and fast or rushed movements toward the cat. It is crucial that all staff members understand the important role that fear plays at the veterinary hospital.

Pain is the second most common cause of feline aggression in the veterinary environment; pain-associated aggression is also self-protection. Unfortunately, detecting pain in cats is difficult, because hiding pain is a protective mechanism.

Anxiety, or the memory of a previous negative (fearful or painful), experience at the veterinary hospital can also lead to aggression. Anxiety is the emotional anticipation of an adverse event based on previous experience. If a cat experienced pain or fear at a previous veterinary visit, it will likely anticipate a negative situation and be anxious during subsequent visits.

Other causes of aggression include play aggression, especially in kittens; petting intolerance; and redirected aggression. Certain medical conditions can also cause aggression, including meningioma, other central nervous system disorders, and hyperthyroidism. How humans interact with cats or react in their presence also affects feline behavior. A person will understandably empathize with an upset or uncomfortable cat in the hospital environment, and even comment, “poor kitty.” Unfortunately, this behavior only reinforces and rewards the cat for recognizing fear. Thus, remaining calm and teaching clients to remain calm, can prevent fear or its escalation, and improve the situation for their cat.

Recognizing and Preventing Fear

Our priority in caring for feline patients is to prevent fear and subsequent aggression and to protect everyone involved. Fear occurs commonly when the cat is placed in novel environments and stimulates the flight-or-fight response. 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; fight is the last resort. By recognizing the more subtle fear responses, we can often prevent escalation. A cat that freezes will hide or crouch, thus becoming immobile. This behavior is frequently seen in the veterinary hospital and can expedite the examination. To prevent escalation of the fear and to reduce stress, handle the patient calmly and gently. Other cats will “fiddle,” or engage in a displacement activity, such as grooming, when faced with a fear-eliciting stimulus. The cat may also flee to protect self and avoid the frightening stimulus. Fearful cats may also bluff, using piloerection to make themselves look much larger to scare away others. If we continue to approach a bluffing cat and provide no avenue for escape, the cat will become aggressive (Fig 5). The normal cat often becomes increasingly fearful and aggressive (ready to fight) if no escape route is available. A common example is a terrified cat in the clinic that feels cornered, unable to escape, and is huddled in the back of a cage; this anxious cat may already be poised to fight, again to protect itself. Alternative methods for removing a cat from a cage can prevent such escalation, making the process safer and less stressful for all involved (Fig 6).

Reducing or preventing fear has clinical implications as well. Stress can cause abnormalities in a cat’s examination findings and diagnostic tests that can be difficult to differen-
tiate from true abnormalities (Table 1). This can lead to unnecessary repeated or additional testing and inappropriate, unneeded, or missed treatment. Two important examples are stress hyperglycemia and hypertension. Stress hyperglycemia is specifically associated with patient struggling and can occur rapidly. Blood glucose levels can rise as high as 613 mg/dL and last for 90 to 120 minutes with or without glucosuria. Insulin treatment is detrimental to such a patient; measuring fructosamine and/or repeat blood glucose levels without patient struggling are indicated. An opposite example is the cat that always has “white-coat hypertension.” Identifying true hypertension is difficult, because patient stress has already elevated the blood pressure. Having a sense of control, even if it is not exerted, makes the cat more comfortable and reduces stress.

Preventing and Treating Pain

Preemptive analgesia can prevent pain and pain-associated aggression. Unfortunately, many painful conditions and procedures go unrecognized in cats because signs of pain are subtle and not as easily recognized in the cat as they are in the dog. Veterinarians can usually identify acute pain associated with trauma, surgical procedures, and conditions such as urethral obstruction. Other painful conditions that require analgesia are more difficult to identify; for example, constipation, dental disease, pruritus, and corneal disease. Painful procedures include intravenous catheterization, ear cleaning, and anal sac expression. The Pain Management Guidelines developed by the American Animal Hospital Association and the American Association of Feline Practitioners provide a detailed list of painful procedures and conditions (referred to in21).

Patients presented for preventive health care may suffer pain because the client does not know how to recognize pain in their cat. Middle-aged and senior cats frequently have painful degenerative joint disease. In the appendicular skeleton, the most commonly affected joints are the hip and the elbow, followed by the stifle. The most severe degenerative

<table>
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<th>Examination findings</th>
<th>Abnormal heart rate</th>
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<tr>
<td>● Tachycardia</td>
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<td>● Bradycardia if long term</td>
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<tr>
<td>Increased respiratory rate</td>
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<td>Dilated pupils</td>
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<td>Hyperthermia</td>
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<td>Evacuation of anal sacs</td>
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<td>Bowel evacuation, often with soft stool that is blood tinged and covered with mucous (“stress colitis”)</td>
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<td>Urination</td>
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<td>Complete blood count</td>
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<td>● Platelet hypersensitivity</td>
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<td>● Lymphocytosis (8000-11,000 has been seen by the author)</td>
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<td>Blood chemistry tests</td>
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<td>● Hyperglycemia—as high as 613 mg/dL has been noted; see text</td>
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<td>● Hypokalemia—secondary to epinephrine release</td>
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<td>Urinalysis</td>
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<td>● Elevated urine pH</td>
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<td>Hypertension (“white-coat hypertension”)</td>
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<td>● Values may exceed 200 mm Hg (normal values: 104.5-159.3 mm Hg)</td>
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joint disease in the spine occurs in the lumbar and lumbosacral areas, and increases with age.23 Other often unrecognized, painful chronic conditions include diabetes-related pain, cancer, interstitial cystitis, inflammatory bowel disease, pancreatitis, and many dental and dermatologic conditions. These conditions are usually not static; pain can increase dramatically during intermittent flare-ups.22

Response to analgesia is an important tool in pain assessment.21 An analgesic trial is called for if discomfort or pain is suspected. Buprenorphine (0.02 mg/kg) is an excellent analgesic that works rapidly when given either intravenously or transmucosally, with full effect within 30 minutes of administration.24,25 Other steps that can help patients suffering from pain (and also help other feline patients) include providing soft, nonskid surfaces to prevent or reduce pain and fear. Handle the patient gently; allow the cat to sit or lie in the most comfortable positions. Further, perform the examination in stages if that is more comfortable for the patient.22

Learning in Cats

Both kittens and adult cats are excellent observational learners, learning by observing another cat.9 The best-recognized observational learning occurs in kittens as they learn hunting skills from the queen.9 Kittens also learn to be social with people if the queen is present and calm around people during socialization.9 If a cat observes another cat being fearful at the veterinary hospital, it will more likely become fearful as well. If one cat in a multicat household is especially fearful during veterinary visits, schedule separate visits for that cat.

Cats also learn from their experiences, and we can influence what a cat learns by affecting their experiences. Desired behavior should be rewarded, and undesired behavior should be either ignored or redirected. At the veterinary hospital, desirable behavior is being calm, playing, and accepting gentle handling. Positive reinforcers include yummy treats and calm praise. Positive reinforcement must occur within 3 seconds of the desired behavior; otherwise, the cat may engage in another activity and not associate the reward with the desired behavior.

Punishment inhibits learning and increases anxiety. A cat can learn to associate pain or fear with punishment; eventually the association can escalate to overt aggression.26 Verbal or physical punishment should never be used with cats. In addition, anxiety inhibits learning, especially learning positive associations.

If a fearful or painful experience occurred at a previous veterinary visit, the cat learns to be anxious during subsequent visits. If we instead make the experience positive, providing calm praise and treats when the patient is calm, the cat will remember positive experiences and be easier to handle.

We can also educate clients to provide positive associations with the carrier and car to prevent fear, by rewarding the cat with calm praise and treats whenever the cat voluntarily goes near or into the carrier, and to ignore fearful behavior near the carrier. Chasing the cat or shoving it into the carrier is counterproductive.

If a cat has a history of anxiety at the veterinary hospital, an anxiolytic medication can reduce or prevent this anxiety. Alprazolam is a short-acting benzodiazepine with rapid onset. The starting dose for alprazolam is 0.0125 to 0.025 mg/kg orally every 24 hours, but in the author’s experience, many cats need higher doses. For optimal effect, administer the drug to a fasting cat approximately 60 minutes before the appointment (or travel, if travel makes the cat anxious). Alprazolam works well in conjunction with food treats and other rewards. Although tranquilizers, such as acepromazine, have been used to prevent fear and aggression at the veterinary hospital, they do not relieve anxiety. In fact, they can disinhibit aggression, resulting in a more aggressive cat; they should never be given to prevent anxiety.

Client Education to Overcome Barriers to Veterinary Visits

Preparing the Cat for the Hospital Trip

Most clients do not understand the cat’s “point of view”—how they perceive the world—and how best to work with them and respond to their needs. Many cat owners have difficulty getting the cat into a carrier.27 Starting client education even before the cat visits the practice can prevent or reduce the difficulty of getting the cat to the veterinary hospital. Provide resources, such as handouts or videos, either on the web site or linked from another web site, or send information via mail or e-mail. Several resources are available at the CATalyst Council web site, www.catalystcouncil.org, and in Table 2. For new clients and clients who have had difficulty bringing the cat to the veterinary hospital, provide information on how best to get the cat into the carrier, accustom the cat to car rides, and which items should accompany the cat to the veterinary hospital.

It is also important that clients understand to reinforce desired behavior and to never punish the cat. Encourage cli-

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<th>Table 2. Videos to Help with Getting the Cat to the Veterinary Hospital</th>
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<td><strong>Titles (click to link to video)</strong></td>
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<tr>
<td>Encourage Cat Vet Visits by Ilona Rodan</td>
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<td>Tips for Taking Your Cat to the veterinarian by Ilona Rodan</td>
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<tr>
<td>Cat Carrier Training with Dr. Jacqui Neilson and Bug</td>
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<td>Day 2 of Cat Carrier Training with Dr. Jacqui Neilson and Bug</td>
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<td>Cat Clicker Training into Carrier with Dr. Jacqui Neilson and Bug</td>
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ents to bring treats to the veterinary hospital, and calmly reward the cat’s positive and calm behavior.

Two other areas of client education will help the cat’s visit to the practice. One is teaching clients to perform home maintenance procedures, such as nail trimming, ear cleaning, and teeth brushing, so that the cat will likely be more comfortable with handling in the veterinary hospital.

Further, teach clients that their actions and reactions will affect their cat. Clients understandably may be anxious about their cat’s health and/or bringing their cat to the veterinary hospital. Clients need to be told that cats pick up on our stress and anxiety, and will be more anxious if the client shows anxiety during the veterinary visit; clients who remain calm will help their cat be calmer.

Preparing the Cat for the Carrier

Educate clients on several attributes to look for when purchasing a carrier. The ideal carrier has a removable top half, so that a more timid cat can remain in the bottom half of the carrier during as much of the veterinary examination as possible (Fig 7). Carriers designed to open from the top as well as the front make it easier to move the cat into and out of the carrier in a nonstressful manner; this feature is especially helpful for cats that have not been trained to the carrier. Hard-sided carriers can be easily seat-belted in for the safety of the cat and to prevent jostling during the car ride. Placing a familiar blanket or piece of clothing from a favorite person into the carrier makes the environment more comfortable and familiar.

If time permits (usually days, but sometimes longer), teach clients how to make the carrier a safe haven for the cat, so that the cat is not fearful in the carrier. Keep the carrier in an easily accessible location that is one of the cat’s favorites, along with comfortable bedding with familiar scent, treats, or toys to entice the cat to enter the carrier on its own (Fig 8). Leaving the carrier door open so that the cat can freely venture in and out provides the cat with a sense of control. Explain to the client that habituating the cat to the carrier may take days or weeks, but it is time well spent. Remaining calm and not forcing the issue, and continuing to toss treats into or in the direction of the carrier is usually successful. If the cat acts fearful near the carrier or has had negative veterinary experiences in the past, spraying a synthetic feline pheromone analog into the carrier helps calm the cat. Once the cat regularly enters the carrier at home and uses it for resting, the carrier door should be closed, and the cat carried in the carrier from one room to the other, again with positive reinforcement given for calm behavior. Videos that help educate veterinary teams and clients on how to make the carrier a positive experience can be found at www.catalystcouncil.org/resources/video/ and in Table 2.

If the cat is sick or needs an urgent appointment and is not habituated to the carrier, encourage clients to spray a synthetic feline pheromone analog inside the carrier at least 30 minutes before transport to help calm the cat. Whenever possible, calmly pick up and place the cat into the carrier, preferably through a top opening. Chasing or grabbing the cat to capture it will only increase fear; if needed, confine the cat in a comfortable room that has no hiding places. Try treats and speak with a calm and soft voice. If needed, use a towel sprayed with feline pheromone analog to confidently but gently pick up the cat and place both towel and cat into carrier.

Figure 7. Most or all of the examination can be done in the bottom half of the carrier if the cat does not leave the carrier on its own.

Figure 8. This cat has been trained as a kitten to use the carrier as a safe haven and chooses to sleep in it on a regular basis. Notice that the carrier is designed to open both from the top and the front as described above.
Reducing the Stress of Transport

Encourage owners to take their cats on periodic car rides paired with positive experiences. Bringing familiar and favorite treats and toys, as well as a comb or brush if the cat enjoys grooming, can make the trip more familiar. Seat-belt the carrier prevents jostling and is safest for all passengers. Car rides should initially be short and to places where the cat can be rewarded; “fun” visits to the veterinary hospital, during which the cat comes in and gets treats and praise, can provide positive experiences in the hospital environment.

Motion sickness can be a problem for cats; preventing and treating motion sickness are critical to make the trip as comfortable as possible. Recommend fasting the cat at least a few hours before car travel both to prevent motion sickness and to increase the cat’s interest in treats at the veterinary hospital. Draping a blanket or towel over the carrier can help. If the cat is still nauseous, drools, or vomits during car rides, medicating with maropitant (Cerenia) prevents motion-induced emesis.30

Handling Skills Based on Understanding the Cat

Based on the author’s own practice and from discussions with other veterinarians, incorporating feline friendly practices into the normal clinic workflow neither adds significant time to visits nor requires significant expense.

Giving the Cat a Sense of Control

Having a sense of control, even if it is not exerted, makes the cat more comfortable and reduces stress.20 Importantly, using the minimal amount of handling gives the cat a greater sense of control, so the cat is less likely to be aggressive. Simply allowing the cat to choose comfortable postures and where to be examined gives the cat some control and will significantly reduce stress associated with veterinary visits.

Let the cat initiate contact whenever possible. Once in the examination room, open the carrier door and allow the cat 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.

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 examination as possible (Fig 7). Dumping the cat out of the carrier frightens the cat and removes its sense of control. If the cat is highly aroused, while the carrier top is being removed, slowly slide a towel between the top and bottom of the carrier; this “cover” provides a safe hiding place for the cat and helps protect the handler. Much of the examination can be performed with the cat hiding under the towel and inside the carrier. If needed, the towel can also be used for handling the cat.

The best approach for examining the cat is to allow the cat to be in a place and a position of its own choosing. Many cats do not like examination tables because they have been punished for climbing on tables at home. 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 home that already has the cat’s scent. Other cats are comfortable sitting next to the client. This is appropriate, as long as the cat behaves well, is not aroused, and the handler is astute to observe and respond to the cat’s body language. Cats that like sitting on laps will often be comfortable in your lap; most cats behave better if they face away from you and can see their owner. Because cats feel more secure when they feel stable, letting the cat lean against your arm or body will often provide that security.

By following some basic handling techniques, the cat’s experience of visiting the veterinary hospital will be far less stressful. Tailor the order of the examination to make it easier for painful and anxious feline patients. Rather than beginning at the head and working to the tail, start by examining the nonpainful areas and those that do not arouse the cat. By first performing the least stressful parts of the examination, and reserving areas that the cat does not like to have touched—for some, the teeth and mouth; for many arthritic cats, the legs or feet; for cats with urinary tract problems, the abdomen—until the end of the examination will help the cat stay more relaxed and comfortable.

Most of us have been taught to scruff cats, but scruffing often only increases a cat’s arousal and fear, because scruffing removes the cat’s sense of control.26 Many cats become fearfully aggressive when scrubbed in an attempt to protect themselves. Some veterinarians, especially in Europe, find “clipnosis” helpful for restraint.31 This procedure is also controversial, again because it removes the cat’s sense of control. In the author’s experience (at least 5 years without scruffing or clipnosis), cats are usually calmer and easier to handle if they are not scruffed. Instead, many cats like to be massaged on their head, behind the ears, or on the chin. Such massage can both distract and calm the anxious cat. For a more anxious cat, use your 3 middle fingers to slowly massage or stroke the top of the head (between the ears), and the first and fifth digits—thumb and pinkie—to control the cat’s head to help protect you and the cat (Figs 9 and 10).

Familiarity

There is a saying that “cats don’t like change without their consent.” Familiarity at the veterinary hospital helps comfort the cat. Bringing familiar objects from home (e.g., the carrier, familiar clothing from a favorite person, and treats and toys) will make the veterinary hospital seem more like home. Other steps to increase the familiarity of the veterinary clinic are practicing home maintenance procedures, acclimating the cat to travel in the car, and bringing the cat to the veterinary clinic for “fun” visits. For a more anxious cat, allowing
it to remain in the bottom half of the carrier (a familiar object) increases the cat’s sense of security. If a cat must be removed from the carrier or stay at the hospital for any reason, be sure to also keep the blanket or clothing that was placed in the bottom of the carrier with the cat. In addition, when reintroducing cats after a veterinary visit or introducing new cats, simple steps such as exchanging the bedding, or using a towel to first wipe an “at-home” cat and then the returning cat, can reduce stress and conflict.

Importance of Smell and Olfactory Communication

By understanding the importance of feline olfactory communication, we can develop protocols to improve transporting the cat to the veterinary hospital and making the hospital environment more feline friendly. Unfamiliar scents in veterinary hospitals can frighten and arouse cats. The cat’s acute sense of smell can detect the olfactory signals (e.g., rub markings) left by another cat. The scent of a cleaning solution may be offensive. Even more important, the scent left by a distressed cat will linger in the clinic, which is why feline stress seems “contagious” and spreads quickly to other cats.

Additionally, synthetic feline facial pheromones (FFP) mimic the natural pheromone that is deposited when a cat rubs its face on objects. The commercial synthetic analog of FFP provides calming effects in unfamiliar or stressful environments. Transport is a common source of stress for cats. Encourage clients to spray the FFP analog in the carrier and car at least 30 minutes before travel to reduce stress associated with transport.

In the veterinary hospital, pheromone therapy also reduces stress in the cat both during examination and hospitalization. Spraying FFP analog onto towels used for handling cats at least 30 minutes before handling reduces fear and makes the environment seem more familiar. Equally, spraying FFP analog onto bedding placed in cages, at least 30 minutes before placing the cat in the cage, increases normal grooming and food intake in both sick and healthy cats.

One study indicated that although cats were calmer with FFP, they did not struggle any less during catheterization.

The synthetic pheromones are not systemically absorbed by cats or humans, and no detrimental behavioral effects have been associated with FFP use. F3 is the only feline pheromone available in the United States and is available in both diffuser and spray. The sprays commonly use alcohol as the carrier. The recommended 30-minute wait time after spraying allows the alcohol to evaporate from a room-temperature surface. Spraying the hands immediately before handling is helpful; heat from the body rapidly evaporates the alcohol, leaving only the pheromone. Table 3 lists possible pheromone uses associated with the veterinary visit.

Vision and Visual Communication

Because cats, as natural hunters, detect movement quickly, rapid movements, especially if unanticipated, will likely heighten a cat’s responses. A good motto for working with cats is: “slow is fast and fast is slow.” Working slowly and confidently, with smooth (not jerky or abrupt), calm movements, will decrease the actual time and number of team members needed to handle the cat. Preparing all needed equipment in advance will both lessen the startle reaction, because fewer people will enter or exit the examination room, and decrease handling time. Keeping the cat in the examination room during the examination, diagnostic testing, and treatment will introduce fewer visual stimuli.

The cat perceives staring (especially by an unfamiliar person) as a threat. New veterinary team members often stand in front of a cat, and observe it by gazing intently, not recog-
nizing that this behavior threatens the cat. All team members must learn to stand to the side and avoid staring to make the veterinary visit far less stressful for the cat. In addition, avoid looming over or grabbing the cat.

Blinking signals that the cat is seeking reassurance in a tense environment. Fortunately, this behavior works for both intercat and human-cat communication. Position yourself at an angle to the cat, then blink slowly or make “winky-eyes” in the direction of the cat, to help provide comfort. Explain to the owner what and why you are doing both to educate them and to prevent human-human miscommunication.

Some cats behave more calmly when visual cues are eliminated. Most cats do not need a muzzle or similar device. For those that do, several relatively gentle options exist, such as a soft cloth or plastic muzzle that both prevents biting and greatly reduces visual cues. When working away from the head, an e-collar can also protect against biting.

Significance of Cat’s Sensitive Hearing at the Veterinary Hospital

Because of their sensitive hearing, sounds accompanying normal activity at a veterinary hospital—such as ringing telephones, paging systems, centrifuges, and x-ray machines—are sources of stress. Excited or loud speech can upset and startle the cat, as can sounds of feline aggression or fear, or noises from dogs and other cats. Educate team members and clients to use soft voices in the clinic.

Significance of Touch

The head and neck are preferred areas for physical touch, which is why cats may become upset and even aggressive when people try to pet them in other areas. This information helps us to avoid stroking or petting elsewhere and to massage or rub around the neck and head (e.g., under the chin).

Conclusion

Based on our understanding of the cat, we can provide a more feline friendly environment that reduces or prevents fear and pain in the feline patient. By reducing fear and pain in our patients, we remove the most common causes of feline aggression at the veterinary hospital. This knowledge and a better understanding of the cat can enable us to provide a safer environment and handling techniques for our feline patients. The primary goals of improved handling techniques are decreased fear and prevention of pain for our feline patients, more knowledgeable and relaxed clients, increased safety of patients, clients, and veterinary teams. As a result, we can see increased numbers of feline veterinary visits and improved feline health care and welfare.

References