



## Cat Behavior

Sheila Segurson, DVM (*Shelter Medicine Resident*) • Shelter Medicine Lecture notes 5/24/04

Cat behavior is often given a lot less attention than dog behavior in animal shelters. This likely occurs because there are still MANY litters of kittens turned into shelters every year, thus 'overpopulation' and spay/neuter programs are focused on, more than behavior. In addition, dogs with behavioral challenges are much more vocal and visible in shelters. The stressed dog often barks, while the stressed cat often hides. Hiding is easy to overlook when you are busy.

Despite receiving less attention, there is a significant amount of scientific data available regarding cat behavior in shelters. The top ten reasons for cat relinquishment to shelters are:

1. Too many in house
2. Allergies
3. Moving
4. Cost of pet maintenance
5. Landlord issues
6. No homes for littermates
7. House soiling
8. Personal problems
9. Inadequate facilities
10. Doesn't get along with other pets

When behavioral reasons are addressed alone, the top 10 reasons are:

1. Soils house
2. Problem between new pet and other pets
3. Aggressive toward people
4. Destructive inside
5. Aggressive towards animals
6. Bites
7. Disobedient
8. Euthanasia for behavioral reasons
9. Unfriendly
10. Afraid

Managing the behavioral health of shelter cats involves several steps:

1. Reducing stress of shelter cats, thereby improving their welfare.
2. Assessing the behavior of shelter cats to ensure a match with a proper home.
3. Identifying behavioral problems that put the cat at risk for euthanasia.
4. Treating behavioral problems.

### Reducing stress

The behavioral symptoms of a stressed cat can be very difficult to diagnose; A stressed cat often appears absolutely normal, but more 'quiet' than usual. The 'classic' stressed cat will hide in the back of the cage, oftentimes in the litter pan. When you give it attention, it shrinks back away from you. Stressed cats are often anorexic as well.

Resolving stress involves identifying factors that cause stress, and reducing these factors as much as possible. Stressful factors include: separation from family, close contact with unknown cats and dogs, infection, intense heat/cold, noise, environmental change, and diet change. Behaviorally, the ideal accommodations for most cats in a shelter should include: a hiding place, vertical space, a scratching surface, minimal transfer from cage to cage, no dogs, fresh food and water, toys that provide physical and mental stimulation, and enough room for clear separation of food/water, sleeping, and elimination areas. Reducing cats' stress reduces the likelihood of infectious disease development and improves their recovery rate. It also more accurately allows shelter staff to perform behavioral assessment tests to better match them to appropriate homes. A behavioral assessment test for cats has recently been published in a scientific journal. The project looked at a specific test and found that certain factors (friendliness to strangers, fear) were repeatable before and after adoption. These findings offer hope for developing better methods to better match cats to appropriate homes.

Cat behavior is a product of genetics and environment. Certain behavioral characteristics, such as friendliness, are inherited through their fathers. Thus with some aspects of cat temperament, we see a strong genetic, as well as environmental influence.

When placing cats up for adoption it is important to identify factors that affect potential adopters' likelihood of keeping the cat in their home, such as friendliness and need for attention, as well as behavioral problems that may result a return to the shelter. Many of these problems are easily preventable and/or treatable. Attached to this document are several handouts that can help pet owners integrate their new cat into their home and increase their likelihood of forming a happy and lasting bond.



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### Introducing new cats to existing household cats

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The first step in creating harmony between your new cat and the existing cats in your household is to pick the best possible new cat for your household and lifestyle. All cats are individuals, and some may merge into your household better than others. Cats that were previously living with another cat are more likely to get along with other cats than a cat that was an 'only child'. Therefore, cats that are comfortably sharing space with other cats are probably a better choice than cats that are housed individually. Think about the things that the cat that is already in your home likes to do. If your cat likes to play, getting another playful cat is probably a good idea. If your cat prefers to lie in the sun all day, you're probably better off adopting a cat that has similar habits. A young kitten or adolescent is probably NOT a good idea for a household with an older cat.

Even if the cat you are adopting is 'good with other cats', there is always the possibility of problems when introducing strangers to each other. There are several steps that you should take to reduce the likelihood of problems. Before bringing your new cat home, create two completely separate areas of the house. Both areas should be equipped with food, water, scratching posts, litter boxes, access to natural sunlight, and comfortable resting places. Make certain that each area contains multiple hiding places which the cat(s) can easily retreat to and escape from if necessary. Large cardboard boxes with holes cut in two sides, make great hiding places. The second hole allows the cat to escape, if cornered by another cat. Cats like to hide in high places; block access to or remove fragile items from shelves in order to prevent them from being broken.

Place each cat in one of the areas/rooms, and spend a minimum of one hour with each cat per day. Play with them regularly and watch them closely for signs of stress or anxiety. These signs can include: hiding, aggressive behavior, decreased appetite, and/or excessive vocalization. If you see any of these signs, your cat could be ill or could be suffering from stress; either way, if they persist for more than several days and/or if your cat stops eating, consult with your veterinarian immediately. A very serious and potentially fatal liver disease has been associated with cats that stop eating- a cat that has not eaten in three days should be seen by a veterinarian immediately. If either cat is showing mild signs of stress, give them time to acclimate to their living space. If both cats appear comfortable in their spaces, trade living areas after two days. This will allow each cat to become accustomed to each other's scent in a non-threatening way. Allow the cats to acclimate to their new room for one

day.

Cats have glands in their cheeks which produce pheromones. When your cat rubs his/her cheeks against a wall, chair, or your leg, h/she produces pheromones, which are chemical substances that can help to relieve anxiety, and provide information about the cat who is producing those pheromones. Exposing each cat to towels that are gently rubbed on the other cat's cheeks may be a good way to introduce them to each other's scent. Some cats respond very well to Feliway® which is a synthetic pheromone spray/diffuser which can be bought online or in pet stores.

Next, you can start allowing the cats closer access to each other by placing them on either side of a closed door so that they can smell each other directly. The next step is to allow them to see each other through a baby gate or a door that is propped open two inches. If the cats are interested in each other and comfortable, it is time to allow them to meet. Open the door to the rooms between the cats and observe them closely. If either cat shows signs of significant stress or aggression, separate them again and introduce them more slowly, as described below.

Cats that are showing significant signs of stress/anxiety need to be introduced to each other more slowly. An anxious cat is much more likely to behave aggressively than a cat who is comfortable and relaxed. Patience in the initial stages of the introduction process can be very beneficial to their future. Once the cats have acclimated to being allowed to sniff each other through a door, bring each cat into a large room, on opposite sides. If you have a willing helper, one person should play with each cat, and/or pet him/her and feed her special treats, such as a small portion of canned food. If you do not have an helper, place the more comfortable cat in a cat carrier with a bowl of canned cat food, to occupy his/her attention. Over multiple sessions, gradually bring the cats closer to each other. You are teaching them that they get special rewards in each others presence, and that nothing 'bad' is happening. With time, the cats will learn that they are not a serious threat to each other.

The above recommendations are guidelines to increase the likelihood that your new cat will get along with the existing cat(s) in your household. If you have tried these techniques and your cats are still not getting along, please seek the help of your shelter or a behaviorist.



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Congratulations – you've decided to adopt a cat! In order to ease integration into your home, take into consideration where your cat came from. Was she staying in a cage, in a room, or in a foster home? Were there other cats living with her or was she alone? Was the environment noisy or quiet? How often did she eat and where did she sleep?

Changing all of these factors in her environment all at once can be very stressful. In order to integrate your new cat into your house and life as smoothly as possible, you must be able to recognize the signs of stress while changing her living situation slowly over time. With this method, you are initially maintaining her previous routine, while changing to your routine over time.

#### Recognizing Signs of Stress

Your new cat will likely be stressed. Signs of stress can include decreased appetite, decreased grooming, hiding, lack of interest in attention or affection, and sleeping in unusual locations. A stressed cat may be more quiet than usual, which can be difficult to notice. Very stressed cats are more likely to behave aggressively or fearfully. If you've adopted a cat from a shelter, this is most likely your cat's third "home" in a fairly short time period. Even though your house is probably much more comfortable than the shelter where she came from, change is stressful. Watch for signs of stress, and if you see them, make certain that they lessen over time. If her stress is not slowly decreasing every day, you should seek the help of a behaviorist or your veterinarian.

#### Your Cat's Environment

Many cats are fearful when introduced to their new home; being moved from a small enclosure to an apartment or house is a big change. Your home also has different smells and noises than the shelter and the home where your cat lived before. Initially, confine your new cat to one room. Your bedroom or the living room often works well for this. Make sure that you provide your new cat with food, water, and a litter box (see below), and that you regularly spend time in this room with her, so that she is not alone.

Provide her with multiple hiding places. A cardboard box with holes cut in both sides (so she can go in and out each side) and a blanket placed in the bottom can be a great hiding place. Be certain to provide her with hiding places on the ground, as well as up high. When she is in her hiding place, do not disturb her. Her hiding places should be her special places, where she can have privacy if desired.

Place a scratching post or cat tree in her room. Place her scent on the cat tree by gently stroking her cheeks with a towel, and then rubbing the scratching post with the towel. This will transfer her scent onto the scratching post, thereby increasing the likelihood that she will use it.

Let your cat adjust to the room, and to you. Do not force her to stay near you if you wish to pet her. Instead, coax her to you by playing with an interactive toy or staying near her food bowl while she is eating. Once she realizes that this stranger (you) provides all the same good things that her previous owner did (and maybe even more!), She will warm quickly to you and accept your attention.

After three days, or once your cat is comfortably walking around and living in this room, expand her access to the entire house. For some cats, it may take several weeks before they are comfortable in their room and can be allowed access to the whole house.

#### Diet

Cats eat less when they are stressed, and sometimes stop eating altogether. It is extremely important to make sure that your cat is eating regularly (and adequate amounts) once you have brought him home. If possible, buy the same type of food that the shelter used. If he is not eating, try mixing a little bit of a tastier food, such as canned cat food or baby food, into his meal.

After two days, or once he is eating regularly, slowly change him over to the diet that you would like to feed him (if different from the shelter's diet). On the first and second days, feed him 25 percent of your diet and 75 percent of the shelter's diet, mixed together. On the third and fourth days, give him 50 percent of each. On the fifth and sixth days, switch to 75 percent of your diet and 25 percent of the shelter's diet. On the seventh day, feed him 100 percent of your preferred diet. Changing your cat's diet too rapidly can cause upset to his system (decreased appetite, vomiting, and/or diarrhea). If this happens, call your veterinarian.

Decide whether you wish to feed your cat once daily, twice daily or free choice (which means leaving dry food out at all times). Many cats who are fed free choice do not properly control their food intake and tend to be overweight, which predisposes them to health problems. For most cats, twice-daily feeding is ideal. You can also put some of your cat's daily ration into a food-dis-



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pensing toy. Food-dispensing toys are a fun way for your cat to “hunt” for his food, and are a great way to enrich his life. Do not start using a food-dispensing toy until your cat has completely settled into your home, after about two to three weeks.

#### Litter Box

Provide your cat with an uncovered, clean litter box. Covered litter boxes can trap odors inside the box, which is nice for you, but not for your cat. Cats are often quite fastidious; they are sensitive to the smell of urine and feces, as well as deodorizers. Reducing the smell inside and around the litter box can be very important for them. Scoop out the litter box once daily, and empty it completely to clean it every two weeks. When you clean the litter box, use a mild soap, not strong-smelling detergents or ammonia.

The most common reason that cats are brought to shelters is litter box problems. Following the above recommendations can make the difference between a cat who is house-trained and a cat who isn't. Remember that if you do not like the smell of the litter box, your cat probably doesn't either; keep it clean and you'll have a happy cat.

#### Toys

There are many different toys that your cat might like to play with. Cats like novelty, so buy several different types of toys for her and try them out. Play with the toys with your cat; do not set them out and expect her to play with them on her own. If she is not interested in them for the first few days, give her time, and try different toys. Do not play with your cat with your hands. Using your hands as a toy teaches your cat that it is okay to bite or scratch you.

#### Indoors vs. Outdoors

One of the big decisions cat owners must make is whether to allow their cat outside. There are many risks outdoors that can shorten your cat's lifespan. He could be hit by a car, poisoned, attacked by a dog, or infected with an incurable virus. However, many cats really enjoy being outdoors and miss the stimulation of the natural world if they are kept inside all the time.

There are several different ways that you can allow your cat to enjoy the outdoors without the risk. You can install perches on windowsills around the house so that your cat can sit at the window, watch the outdoors, and enjoy the sunlight. With patience, you can teach your cat to walk with a harness or leash, and then

you can take him outdoors for walks. Another option is to build an outdoor enclosure (often called a cattery) for your cat. If you do build a cattery, make sure that it is completely inaccessible to the elements, wildlife and dogs.

#### Summary

The key to successful integration of your new cat into your home is being aware of the signs of stress, and making sure that they remain minimal. Change her environment slowly. Remember that although these recommendations work for most cats, they will not work for every cat. If your cat is showing signs of stress and is not improving, please contact your veterinarian or a behaviorist.

#### Intercat aggression

If your cats suddenly start fighting, when they previously lived together without altercations, the first step is to take them both to your veterinarian for medical evaluation. Medical problems can cause your cat to be painful, grouchy, or confused and increase the likelihood for aggressive behavior. If a medical evaluation reveals no abnormalities, the following recommendations may help them to resolve their differences.

The first step is to separate the cats from each other completely. Do not allow them to paw at or smell each other through the door. Place a barrier at the bottom of the door, or confine them in separate parts of the house where there is no opportunity for contact. Provide each cat with food, water, a litter box, a comfortable place to sleep/rest, as well as regular interaction (playing and/or petting). While the cats are separated, create a list of 'triggers' that cause fights. For example, your cats may fight when both want attention from you, or may fight over preferred resting places, or fight when they see another cat outdoors. If the cats are primarily fighting over resources, such as access to food or resting places, provide them with abundant resources. If there are 4 food bowls interspersed throughout the house, it is very difficult for one cat to guard all 4 food bowls and aggression is much less likely to occur. If the cats attack each other after seeing another animal outdoors, block visual access to the outdoors- opaque 'wallpaper for windows' works well in this situation.

If the cats are fighting over access to, and attention **from you**, teach them that this behavior is unacceptable. You can do this by paying close attention to the warning signs of anxiety and aggression. These signs can include: dilated pupils, direct stare



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at the other cat, tense body posture, and a swishing tail. When you see these signs, get up from what you were doing and leave the room. The cats will now have nothing left to fight over. It is crucial that you do this technique EARLY and at the first signs of anxiety. If you wait too long, the cats will not remember why they started behaving aggressively, and will only remember what they are doing, and likely behave aggressively toward the other cat.

Another technique you can utilize to prevent a fight, is interruption and redirection. When you see the first signs of anxiety, distract the cats with a loud noise such as clapping your hands, or dropping a book on the floor. Keep a box with 'special' toys that your cat really likes, or special treats, in it. After distracting the cats, call them to you and reward them (for coming when you called) and play with them individually or feed them a food reward.

After two weeks, or once you have created your list of triggers, and the techniques that you will use to prevent aggressive events, it is time to reintroduce the cats to each other. Start by allowing the cats some access to each other, such as smelling each other through the crack at the bottom of a door.

Next, start exercises where you give each cat a small bowl of special food (such as canned food, or a small amount of tuna), each cat five feet away from a door adjoining two rooms. The more frequently you are able to do these exercises, the more quickly your cats will progress, but aim for a minimum of twice daily. After the cats are eating for a few seconds, open the door between the rooms. If the cats show warning signs of aggression, close the door immediately, and start your next exercise further away from the door. Over time, move the cats closer to the door, and to each other, until the cats are able to eat side by side without behaving aggressively. You are teaching them that good things happen in each others' presence, when they are well behaved. If the cats show warning signs of aggression during any of these exercises, end the session immediately, remove the food, and reformulate your plan to prevent the recurrence of aggression.

Cats have glands in their cheeks which produce pheromones. When your cat rubs his/her cheeks against a wall, chair, or your leg, h/she produces pheromones, which are chemical substances that can help to relieve anxiety, and provide information about the cat who is producing those pheromones. Some cats respond

very well to Feliway® which is a synthetic pheromone spray/diffuser which can be bought online or in pet stores. Feliway is sometimes effective in reducing the likelihood of aggressive events, by way of its calming effects.

After two to three weeks of feeding exercises with no aggression, you can start allowing the cats direct access to each other, with your supervision. Keep each room of the house equipped with special toys and treats. If the cats show warning signs of aggression, distract them, redirect their attention toward you, and take note of when and why the behavior occurred. Remember that mild aggressive displays, such as hissing then walking away, can be normal when two cats have not seen each other for several weeks.

If one cat seems to be bullying another cat, first make certain that the 'bully cat' is getting enough attention/interaction. Secondly, teach the cat to come to you when you call its name. Most cats already 'know' this behavior; they 'come' when they hear the treat container making noise. Start saying 'come' immediately after shaking the treat container, and your cat will soon learn to associate 'come' with treats. You can now use 'come' to redirect your 'bully' cat's behavior. If you see him starting to stalk your other cat, tell him to 'come'. When he comes to you, play with him with a special toy, or give him a special treat, teaching him that when he comes to you instead of behaving aggressively, he gets rewarded.

If these techniques do not solve your cats' problems, please seek the help of your shelter, veterinarian, or a behaviorist. Remember that cats take time to learn how to behave aggressively, it will also take time to teach them that you do NOT want them to behave aggressively. Be patient, and be creative. In most cases, teaching providing them with adequate playtime/social stimulation and preventing aggressive incidents from occurring, and employing desensitization and counter-conditioning will resolve the problem.

#### Managing Aggression problems

Is your cat biting or scratching you? The first step in solving this problem is to determine why it is happening. Is your cat stalking and pouncing on you? Is it biting you after you have been petting it for a short period of time or after you touch it in a certain place? The recommendations below are general recommendations for all feline aggression problems. Before treating



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your cat's aggressive behavior at home, consult with your veterinarian. Occasionally medical problems that can cause pain or irritability will lead to aggression; treating these conditions may resolve the aggressive behavior.

Remember that aggression is normal cat communicative behavior. Cats use aggression to tell another cat that they do not wish to interact, to claim their territory or valuable possessions (including food), and in play. It is your job to teach your cat that you would prefer that s/he communicate in a different manner.

#### Safety

The first step in treating aggression is preventing your cat from harming you. Trim her toenails (or if necessary for safety reasons, take her to your veterinarian or groomer for a pedicure) so that if she scratches, she will do less damage. Avoid doing things to her that are likely to cause aggression. For example, some cats behave aggressively when touched on the rear end and other cats do not like being petted when sitting on someone's lap. Write a list of all the triggers that cause your cat to behave aggressively. Don't do these things until you have addressed the problem with behavior modification techniques.

Pay attention to and learn to recognize the signs that occur shortly before your cat attacks. For some cats, this means dilated pupils and a change in ear position. For other cats it means a rapidly swishing tail or a crouched, tense body posture. Recognize the signs that your cat displays before she behaves aggressively and stop interacting with her before she gets mad, and you get hurt. Continuing to pay attention to, or punishing, a cat that is displaying aggressive warning signals is highly likely to result in aggression.

#### Social Interaction

A common cause for aggression is a lack of social stimulation, or boredom. Many of our cats live indoors and don't have anyone or anything to play with. In an effort to relieve their boredom, they choose to 'play' with your leg, or sometimes your head while you're trying to sleep. Relieving that boredom and providing your cat with an appropriate outlet for her energy can reduce the likelihood that she will choose to relieve her boredom by 'playing with' you. Create a 'toy box' for your cat, which is kept out of her reach. Cats love novelty and rapid movement. Toys that sit out in the living room quickly become 'boring'. Rotate the toys in/out of her box every three days, so that she is only allowed to play with the toys for a few days, before a few new and exciting toys arrive. Scent is important to cats, and can make a toy more exciting. Carry small toys around with you before you give them to her so that they acquire your scent, or put them outside in the garden so that

they acquire the scent of the outdoors. Some cats love the smell of catnip toys. Interactive toys (toys that you have to manipulate in order to make them 'fun', such as a feather attached to a wand and a string) tend to maintain cats' interest for the longest period of time. If you have an active cat, you should play with her for a minimum of twenty minutes twice daily. Food dispensing toys are also available, that can provide your cat with entertainment without your direct involvement. Do not ever use toys that involve using your hand (or any other body part) as an object of play. This could potentially encourage aggressive behavior by teaching your cat that it is permissible to play with/attack your hands.

#### Solving the Problem

If you have been avoiding aggressive incidents and playing with your cat regularly for three weeks, and she is still behaving aggressively toward you, it is time to proceed to the next step. This step begins by reviewing the list of triggers for aggression that you wrote when you first started working on the problem. Pick the trigger that is least likely to result in aggression- this will be your first choice for your behavior modification plan. If your cat behaves aggressively when she is touched or picked up, you need to proceed with desensitization and counterconditioning (ds/cc). Please read the handout on ds/cc and work to resolve the problem in small steps. Remember that this problem has existed for quite a while and that patience will provide you with the best likelihood of success. If your cat is behaving aggressively by stalking you and or jumping at your pant legs, you need to teach her that you do not appreciate this behavior. If you see her getting ready to 'attack', say her name and call her to you. If she listens (and comes to you without attacking you), give her a special food reward (which you should keep in small containers in different parts of the house) or play with her with a special toy. If she does not listen, use remote punishment, such as spraying her with a spray bottle or dropping a large book on the ground which will startle her. Your goal is to interrupt her behavior, and NOT to hurt her. Next, leave the room and close the door, giving her a 'time out' for several minutes. When you let her out, ignore her for a few minutes then call her to you. Reward her with a treat or play if she approaches you in a non-aggressive manner.

If you are not successful with the recommendations in this handout, or if your cat is injuring you, please consult with your shelter, veterinarian, or a behaviorist. The causes of aggression can be very complex and oftentimes an experienced behaviorist can offer detailed, specific recommendations for your cat.