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## STRENGTHENING THE HUMAN – ANIMAL CONNECTION

### Feline Inappropriate Elimination

Why do cats urinate and/or defecate in places other than their litter box? There's always a reason they stop using their box and it's not to make you mad or get revenge. When kitty stops using the box it's time to take a close look at what's going on in your cat's world. Inappropriate elimination typically falls into one of three broad categories. 1) medical issue, 2) marking behavior, and 3) toileting behavior. Looking at things from your cat's point of view, you should be able to uncover the source (or sources) of the trouble and make the necessary changes that will put things right.

The first place to start is to rule out any underlying medical issues. Signs of lower urinary tract disease (infection, inflammation, stones, etc) may be obvious such as blood in the urine, straining to urinate, and frequent urination but it is not uncommon for a cat to simply urinate in inappropriate locations (periuria). For cats that defecate inappropriately, a medical work-up is also warranted. Diarrhea, loose stool and constipation can all contribute to a cat boycotting the box. Sometimes it is a matter of the kitty associating painful urination or defecation with the box and then avoiding the box. Other times it's an issue of urgency and not being near the box. Medical issues that do not directly involve the urinary or gastrointestinal systems may also be to blame including diabetes mellitus, hyperthyroidism, liver insufficiency, neurologic disease, osteoarthritis and any causes of polyuria (increased urine output), polydypsia (increased water intake), pain and/or lethargy.

Any medical issues will need to be treated appropriately and resolved. Interestingly, addressing the cat's stress level is equally important. We now know that stress can play a role in the development of Feline Idiopathic Cystitis (FIC) and that enriching the cat's environment and decreasing stress can be very helpful to prevent FIC. It turns out that cat's are very sensitive to stress and researchers have found that behaviors typically associated with sick animals, such as food refusal, frequent vomiting and litter box avoidance, can occur in response to changes to a cat's normal routine. Environmental enrichment is covered in more detail at the end of this handout.

So, how do we tell the difference between marking and toileting behavior (elimination in a spot other than the litter box)? Vertical spraying (standing posture, tail up, tail shake) and smaller amounts of urine are typically marking behavior whereas squatting to urinate and larger volumes are typically toileting behavior. Marking behavior is most often related to aggression, territorial issues, or anxiety. Toileting behavior is often related to medical problems, anxiety, preference issues or aversions (substrate or location). These distinctions are not absolute, and some cross-over exists. Some marking behavior can have a medical basis.

Since anxiety is an underlying factor in both marking and toileting, let's explore this topic. If the cat is afraid to move comfortably in the house she may start to eliminate inappropriately. This is often seen in cats that are new to a house and not yet comfortable with the environment. Conflict between family cats is a very common source of fear/anxiety. The anxious or fearful cat may urine mark to surround itself with a familiar scent. Use of harsh punishment by the owner could cause the cat to hide whenever the owner is present and thus eliminate close to the hiding place. Fear of the family dog that chases the cat may also contribute to this problem.

The best way to help these cats is to identify the source of the fear and anxiety. Stop all harsh punishment; move the box away from scary noises; use desensitization and counter conditioning to teach the cat to be less fearful of things in the household. If the spraying is a response to social conflict with other cats in the household you need to work on improving the relationship between the cats. Make all of their associations positive using treats, affection and play. You should also provide the marking cat with "alone time" 4-6 hours a day, away from the other cat/s.

As mentioned, marking is often used to establish and maintain territories. It is normal feline behavior but definitely unacceptable in our homes. The most common triggers for urine marking include a new cat in the household, free-roaming cats outside, or social conflict between family cats. A visitor to the home, new furniture or unfamiliar odors can also trigger marking. They may also mark out of frustration (not allowed access to outdoors, not getting enough attention from their owner).

Litter or litter box aversions are two of the most common reasons kitty boycotts the box. Some signs that the cat doesn't like the box or the substrate include the following: 1) The cat shakes her paws excessively to remove the litter when she comes out of the box. 2) The cat, wanting as little contact with the litter as possible, does not bury her waste. 3) The cat balances on the side of the box to eliminate because she doesn't want to step in the litter. 4) The cat eliminates right next to the box. 5) Cat is simply toileting somewhere other than the box.

Common causes of litter box or litter aversion include the following:

1. **Undesirable litter** – Studies show that cats prefer fine textured clumping litters that are unscented and not dusty. Another study compared clumping litters and found that litter containing carbon for odor control was preferred. For cats that were once outdoor cats, substrates such as sand and dirt may be preferable to commercial litters. It is also interesting to know that some cats have separate needs for urination and defecation.

*Treatment: Give kitty an assortment of litters to try (a litter cafeteria)– get a couple of extra boxes and place original litter in one and two other substrates (consider different textures such as pelleted newspaper, carpet square, shredded paper, or a different brand of clumping litter, or even an empty box for those cats that have decided they prefer slick surfaces like sinks and tubs) in the other two. After a few days of scooping boxes daily – see which box was used the most and stick with that substrate in all of the boxes.*

*-Unscented litter with low dust is preferred.*

*-Cats also prefer litter depth of about 2 inches – many cats don't like to feel like they are sinking into the litter.*

2. **Dirty box** – Who can blame a cat for not wanting to potty in a dirty box? We don't like to use dirty toilets and either do cats. Cats are not only very fastidious, but they also have a very keen sense of smell and a soiled box can be very offensive to kitty's nose.

*Treatment: It is very important to scoop waste daily or even twice daily and to dump and wash the box every week (if kitty has been boycotting the box) with a mild soap such as dish soap. Avoid harsh cleaners such as ammonia, bleach and the like – these are offensive to cats and some cleaners are toxic to cats.*

3. **Box size** – Cats appreciate a box that is large enough to maneuver around in and extend their front paws out to dig and bury. Studies looking at digging and burying behavior in outdoor cats exhibited elaborate reaches when digging and burying waste. Most conventional litter boxes are too small for the average sized cat to maneuver around in and adequately reach and dig. This may be why we see some cats reaching outside the box or up onto a wall with their digging ritual (they may also do this if they do not like the litter and don't want to touch it).

*Treatment: Find the biggest commercial boxes available or try alternatives such as under-bed plastic storage bins – look for flat bottoms for easy scooping.*

4. **Other litter box issues** – Despite our desire to hide the box out of sight, kitty wants a conveniently located box that offers privacy (kitty will feel safer), so avoid high-traffic areas.

Conflict between family cats is a common cause for inappropriate elimination. If one cat is being harassed and threatened while in the box by another cat, the cat becomes afraid to go to the litter box because he feels vulnerable to attack and harassment. Kitty needs an easy get-away (kitty needs to be able to see if anyone of anything is waiting to ambush him). There should be multiple boxes scattered

throughout the house in multi-cat homes. There should also be one litter box per cat plus one extra and it is desirable to have at least one box on every floor in a multi-floor home. Some cats simply will not use a box that another cat has eliminated in so it wise to have a litter box in each cat's "core" area of the home (the area where each cat spends the bulk of their time resting and hanging out).

Also consider the needs of elderly cats and kittens. All boxes should be extremely easy to get to – don't make them have to jump up or open a door. High-sided boxes can be difficult for arthritic older cats and kittens to use. Stairs also pose a challenge for arthritic cats.

Avoid putting the box near any loud appliances or near any food and water stations. Last but not least, cats prefer uncovered boxes. The cover not only traps odors inside, but it also prevents the cat from seeing if anyone is lurking nearby to ambush her and it allows less maneuvering room. Humans also fall victim to the "out-of-sight, out-of-mind" phenomenon and scoop covered boxes less frequently.

Addressing medical issues, anxiety/fear issues and identifying and correcting litter box faux pas are just part of the treatment plan. The following recommendations will help prevent kitty from re-offending in the undesired areas:

1. Make sure you clean all affected areas well with an enzymatic cleaner that breaks down the urine molecules. Nature's Miracle and Anti-Icky Poo, and Zero Odor are a few examples. You'll really need to saturate the area, including the underlying carpet padding if urine is on carpet. As long as there is an olfactory cue (the smell of urine) the cat will continue to soil the area. Note: enzymatic cleaners will not work if used "after" a detergent cleaner. Instead, use "Urine Away" by CEVA.
2. If kitty has developed a preference for certain substrates such as rugs, clothes, etc., you will need to make sure these substrates are no longer available. Keep them off of the floor or prevent access to these areas. This is simply smart management.
3. If kitty has developed a preference for a particular area, after eliminating all odor from that area, place a litter box there. After kitty is using it well, you can begin to move it (if desired) by one inch per day until it is located in an area you like. The best bet is to just leave it where kitty wants it – even if it is in a prominent area of your home – after all, if you're scooping it twice daily it shouldn't smell, right?
4. Restrict access to all soiled areas until they are properly treated.
5. Use aversive smells in the area such as menthol, perfumes, air fresheners, potpourri, oil of wintergreen or citrus. On the topic of smells – make sure no offensive odors are anywhere near the litter box areas. Other aversive stimuli include foil or upside-down carpet runner.
6. Change the significance of the area by feeding the cat there or providing catnip, toys and treats.
7. Spray the synthetic facial pheromone FELIWAY in the area. Since cats mark with their facial glands, providing this olfactory cue may cause the cat to switch to a different marking strategy. Feliway was developed to decrease anxiety-related behaviors of cats. It is best used in combination with environmental enrichment or drug therapy.
8. If the spraying is a response to seeing cats outside the window, block kitty's view (Frosty glass window film), place something aversive at the window to keep kitty away or use an outdoor deterrent to keep outside cats away (motion-sensor sprinkler, i.e. Scare Crow).
9. Behavior modification can include positive reinforcement for using litter box (praise and treat) or remote punishment if you catch kitty in the act. It must be done when you see the cat getting ready to spray or at least within a second or two (but you must remain hidden so the sound is not associated with you). Shaking a penny can or blowing a whistle are examples.

10. Behavior-modifying drugs are commonly prescribed for anxiety or conflict associated inappropriate elimination. They will have little or no impact on the cat that is soiling in inappropriate areas. Medication can help but only after environmental enrichment has occurred; it cannot replace it.
11. For cats with recurrent FIC or urinary tract infections it is often helpful to gradually switch kitty over to an appropriate canned diet which will help kitty take in more water.
12. Environmental enrichment is very important for all cats but it's especially important for cats with inappropriate elimination or cats with recurrent FIC. For indoor-housed cats, it is defined as "provision of all 'necessary' resources, refinement of interactions with owners, a tolerable intensity of conflict, and thoughtful institution of changes.

This is a list of what cats need as well as what cats want in order to be happy and content:

- ✿ Food: cats prefer to eat individually in a quiet location where they won't be startled by other animals, sudden movement, etc. If it is a multi-cat home, offering each cat its own "core" area with food and water stations, litter boxes and resting areas is best. Providing a food-dispensing ball for part of the daily intake is a nice way to encourage cats to "hunt" for their food. If a diet change is appropriate, offer the new diet in a separate, adjacent container and let kitty ease into eating the new diet.
- ✿ Water: Cats have preferences when it comes to water. Factors to consider include freshness, taste, movement (water fountains, dripping faucets), and the shape of the container (some cats resent having their whiskers touch the sides of the bowl). If offering a new water source always the old source in place and add in the new source so kitty has a choice.
- ✿ Litter: box in each "core" area, on each floor, conveniently places with escape routes. One per cat plus one. Non-dusty, unscented, scoopable litter, 2 inches deep. Clean box – scooped daily and washed weekly. Make sure boxes are big enough for the size of the cat.
- ✿ Space: Their environment should include opportunities for scratching (horizontal and vertical options), climbing, hiding, and resting. Cats seem to prefer to monitor their surroundings from elevated vantage points, so climbing frames, hammocks, platforms, raised walkways, shelves, or window seats appeal to them. We need to remember that cats are not only predators but prey animals as well, so they appreciate the opportunity to feel secure and observe their environment.
- ✿ Play: Some cats seem to prefer to be petted and groomed, whereas others may prefer play interactions with their owners. Learning tricks is another positive way to interact with and stimulate a cat's mind. Offer plenty of toys, especially those that are small, move, and mimic prey. Novelty is important so rotate toys often to keep them interesting to the cat.
- ✿ Address conflict between household cats: Signs of conflict may be openly hostile or silent. Many owners don't realize there is conflict until one of the cats begins to hide or becomes ill (due to stress). Both the "victim" and the "bully" can urine spray or toilet inappropriately, but it is often the threatened cats that develop elimination problems. The most common cause of conflict is competition for resources. This is why it is important to identify the area of the home that each cat has carved out as its "core" area and place food, water, litter boxes, resting areas (preferably elevated), and hiding places in these areas. Cats involved in conflict may never be "best friends," but they can usually learn to live together without showing signs of conflict or conflict-related disease. For severe cases a behaviorist may be consulted for assistance in desensitizing and counter-conditioning the cats so they can co-exist more comfortably.