

# Inappropriate Feline Elimination (House Soiling in Cats)

## BACKGROUND

Inappropriate elimination is one of the most common behavioral complaints of cat owners and a major reason why some cats are surrendered to shelters or euthanized. In cats, most elimination problems involve urination outside the litter box but can also include defecation. Marking, a normal form of communication in domestic and feral cats, is the deposition of urine, and in some cases feces, as a form of communication.

## GETTING STARTED

If your cat is eliminating outside of the litter box, the first step is to rule out medical causes by having your veterinarian perform a full physical examination and any necessary diagnostic tests (complete blood count, serum chemistry, urinalysis, +/- urine culture, and radiographs). There are many physical disease states that can cause a cat to be uncomfortable when urinating, and therefore make them avoid the “scene of the crime”, the litter box where they feel/felt discomfort. Some of the medical problems include urinary stones, interstitial cystitis, bacterial infection, or even bladder cancer. If a medical cause is not determined, then more in-depth history questions can help to reveal the underlying motivation and best treatment options.

## SETTING UP

Questions your veterinarian will ask you include:

- How many litter boxes are in the house?
- How many cats live in the home? What is the relationship between the cats?
- What type of litter is used? Clay, clumping, scented, crystals?
- How often is the box scooped?
- How often is the box cleaned? What type of cleaner is used?
- How big is the box?
- Do you use a liner in the litter box?
- Where is your cat eliminating?
- Is your cat still using the litter box at all?
- How frequently does your cat eliminate outside the box?
- Is the food and water dish near the box?

## TROUBLESHOOTING BEFOREHAND

Inappropriate elimination is the finding of a new toileting area with three primary causes—aversions, preferences, and anxiety. Aversions involve the litter box itself (cleanliness, litter, size, type of box) or experiences when in or accessing the box (painful urination or defecation, blocked access to the box, bullying of another cat by the box). Boxes that are near appliances (washer, dryer, furnace), down a flight of stairs, or in basements can also deter the cat from accessing the box. Some cats develop a location preference to eliminate (closet, piece of furniture, bedroom) and other cats may prefer a particular substrate to eliminate on (carpet, clothes, tile). Anxiety in cats can develop in response to any stimulus such as another cat, new baby, family dog, or a move and is often accompanied by other clinical signs such as hiding, escaping, freezing, and/or anorexia.

When differentiating between marking and inappropriate elimination, knowing if the cat is eliminating on horizontal (squatting) or vertical (standing) surfaces is key. Inappropriate elimination tends to occur on horizontal surfaces, in large amounts, and less urine and/or feces will be found in the box. In contrast, marking occurs

on vertical surfaces, is often a small amount, and most cats still use the litter box for elimination.

If you have more than one cat, it may be difficult to know which one is causing the problem (or if it is both). A video recording of your cat may be needed to identify which cat is eliminating outside the box.

## PROCEDURE

- A dirty litter box is the number one reason for cats to eliminate outside the box. Regardless of cause, daily scooping, and weekly cleaning with replacement of fresh litter is imperative. Avoid strong-smelling or citrus-type cleaners as these tend to cause an aversion to the box.
- Have enough boxes? The number of cats that you have in the household will determine the number of litter boxes needed. As a general rule, you should have one more litter box in the house than you do cats and they should be easily accessible and on every floor if your home has more than one floor. That means if you have three cats in a one-floor home, you need at least 4 litter boxes. If you have one cat living in a four-story home, you still need 4 litter boxes!
- The size of the box matters. Cats need to be able to turn around in their litter box without touching the sides. Most commercial litter boxes are too small for our cats. Using boxes made from larger storage containers with a hole cut into the side may be preferred by your cat.
- The type of litter matters. Cats prefer non-scented, even non-clumping litter. You can test your cat by offering two litter boxes: one with clumping and one with non-clumping litter. Monitor your cat for a week and keep a journal of which litter your cat prefers.
- Hood or no hood? It all depends on the cat. Some prefer the top and some do not. Once you determine the type of litter your cat prefers, then you can repeat the experiment with a hooded vs non-hooded box.
- Clean soiled areas with an enzyme based cleaner. If your cat is eliminating on carpet, it is important to also clean the carpet pad underneath. If your cat has a substrate preference, limit access to that substrate (e.g., pick up clothes off the floor, close the bathroom door, pick up the bath mat).
- If your cat has a location preference, restrict access to that area. With any cat that eliminates outside the box, it is important to make the location they are currently eliminating in as undesirable as possible and the area that you would like them to eliminate in as desirable as possible.
- Assess the relationship between your cats. Cats are very subtle in their communication and are often non-confrontational. Watch for subtle signs that may indicate the relationship between your cats in not as amicable as you think. Subtle signs can be ears back and flat, walking out of a room when another cat walks into the room, walking the perimeter of a room to avoid another cat or dog, sleeping near but not touching one another.
- Multimodal enrichment. Cats need a combination of social and environmental enrichment to help them feel safe and perform necessary species-specific behaviors such as hunting. Giving cats areas to hide, climb, and scratch will reduce overall stress by giving them the opportunity to perform normal cat behaviors. Fifteen to twenty minutes of structured playtime with humans and three to five minutes of positive reinforcement training will

help to strengthen the relationship with your cat and teach the cat behaviors that can be used when needed (e.g., come, sit, go to a mat, and touch). It is important not to punish your cat (yelling, spraying water, placing them in the box) as this can be counterproductive.

- Identify triggers: If triggers for the behavior can be identified, try to avoid them. If they can't be avoided a more in-depth treatment plan involving changing your cat's emotional response to that

trigger can be developed with your veterinarian or a veterinary behaviorist.

## AFTERWARDS

Most cases of inappropriate elimination should improve once the cause is identified and managed. If the elimination is motivated by anxiety or your cat is marking, then medications can be helpful in reducing the behavior.

## FREQUENTLY ASKED QUESTIONS

### *I have 4 cats, how many litter boxes should I have?*

As a general rule of thumb, the number of litter boxes should equal  $n+1$ . That equates to one more litter box than you have cats, so, in this example you need at least 5 litter boxes always available in the home.

### *How do I know which cat is eliminating outside the box?*

When you have multiple cats, determining who is eliminating can be challenging. Video recordings help to determine which cat (or if all cats) are eliminating outside the box. There are many apps and reasonably priced recording devices available commercially.

### *My one cat has diabetes but my other cat is the one eliminating outside the box. Why is that?*

The reason that your otherwise healthy cat may be eliminating outside the box is that he or she may not be comfortable with the amount of soiling in the box. Cats with diseases such as diabetes and kidney disease often produce large amounts of urine and if that urine is saturating the box, the other cat may seek out alternative elimination areas.

### *Will my cat return to using the litter box if I clean it more frequently?*

This depends on the motivations behind your cat's elimination. If the cause is litter box aversion then yes, your cat has a good chance of returning to using the box. If there is another cause such as location preference, substrate preference, or anxiety, then no, your cat may not return to using the box until changes are made.

### *My cat is eliminating in front of the box and it is clean. Why is that?*

When cats eliminate in front of the box, it is usually an indication that there is something about the box that the cat finds undesirable. It could also indicate the box sides are too high and your cat may be experiencing discomfort climbing in and out of the box.

### *If I catch my cat eliminating outside the box, should I just put him back in the box?*

Punishment is unlikely to stop the inappropriate elimination and is more likely to aggravate it. Even though the intent with punishment is to decrease the likelihood that a behavior will reoccur, it often increases fear and anxiety when used. Spray bottles, yelling, and even placement of the cat in the box can be considered punishment.

Other information that may be useful: "How-To" Client Education Sheet:

- How to Reduce Inappropriate Elimination by Litter Box Hygiene

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