



## The Cat Bladder and Urination Behavior

The urinary bladder is the stress organ in cats. (The intestines are the stress organ in dogs). When cats experience long term or severe stress their bladder becomes inflamed. This inflammation can create an environment in the bladder that leads to secondary problems like crystal formation, bacterial infection, and/or obstruction.

The urinary system is also very complex. Urinary problems may be caused by metabolic disease, kidney injury, arthritis, congenital malformations, genetic predispositions, stress, diet, environment, allergies, grooming habits ... Urinary problems can become quite complex and may take some time to resolve. It is important to work closely with your veterinarian. You'll need to monitor your cat closely and keep your vet updated on any changes. Urination behavior will often require changes in the home and medications to correct.

### **Inappropriate Urination**

Peeing outside of the litterbox is the most common sign of bladder issues and stress in cats. Unfortunately, it may also be a normal part of cat behavior. It is also one of the most difficult, disgusting, and intolerable of all cat things. We absolutely love our cats but their urine is awful and so hard to clean. Inappropriate urination is the most common cause of pet relinquishment.

Urine spraying is a normal part of feline behavior in which a cat marks to leave its scent. Marking behaviors can include scratching, rubbing, urine spraying, and pooping out of the litterbox. Unneutered male cats and unspayed females might mark as part of their sexual behavior. This is actually the least common cause of inappropriate urination. Spaying and neutering will dramatically reduce this behavior. It is important to rule out any medical issues before surgery.

Anxiety-related marking occurs in response to a change in the cat's environment, especially the core area where the cat eats, sleeps, and plays. Cats often target items with new or unrecognized smells such as backpacks and shoes. Marking behavior that starts at windows and doors usually suggests that the perceived threat is coming from outside the home. Marking in stairways, hallways, doorways, or the center of rooms usually indicates stress or threats from inside the home, such as other pets or new people in the household, active children, or remodeling. It can be challenging to figure what might be causing these complex little creatures stress.

Medical issues can cause a cat to exhibit behavior changes such as house-soiling. Your veterinarian will be able to diagnose or rule out any medical conditions that could be a factor in the house-soiling behavior. Every cat that starts to house-soil requires a thorough physical examination and urinalysis to check for medical problems such as infections, cystitis (inflammation of the bladder), arthritis, kidney problems, diabetes, and other medical issues. If your veterinarian believes the house-soiling behavior is caused by a medical reason, he or she may perform additional tests such as a urine culture, abdominal radiographs, abdominal ultrasound, complete blood count, and biochemical profile.

### **Symptoms of Urinary Tract Disease**

A cat may experience many symptoms or no symptoms when they have urinary tract disease. Sometimes very subtle changes in your cat's behavior are hard to notice or your cat may eliminate outdoors where they are not observed.

- ♥ Urinating more often.
- ♥ Straining to urinate.
- ♥ Blood in the urine.
- ♥ Urinating smaller amounts.
- ♥ Discolored or odorous urine.
- ♥ Urinating out of the litterbox.
- ♥ Over-grooming their hind end, perianal region.
- ♥ Not grooming at all.
- ♥ Crusting around the vulva or prepuce.
- ♥ Lethargy, decreased appetite, fever, vomiting, and/or diarrhea.

### **Treatments**

Medical treatment will depend on the cause of the urinary tract issue. Uncomplicated bladder infections may only require a short course of antibiotic and anti-inflammatory medication. Stress cystitis (inflammation of the bladder) may require anti-anxiety medications and intense changes of their home environment. Kidney infections, diabetes, and other more severe diseases will likely require hospitalization. Arthritis can be difficult to diagnose but thankfully, we now have wonderful treatments. Crystals and inflammation may need to be controlled with a prescription diet.

### **Feline Behavioral Enrichment**

Behavior problems are a leading cause of pets being surrendered or euthanized. These problems often occur in cats because their needs have not been fully met. Cats need resources to perform their natural behaviors and have control over their social interactions. As owners, we can enhance our cats' health and wellbeing by ensuring all their needs are met in the home environment.

Environmental needs include a cat's physical surroundings – indoors, outdoors, or both – as well as their social interactions with humans and other pets. Cats often do not express obvious signs of stress, pain, or sickness that we can easily recognize. If we are proactive and meet appropriate environmental needs throughout a cat's life, we can potentially avoid environmental stressors that can cause unwanted behaviors and even impact medical health.

Cats are solitary hunters, spending much of their day searching the environment for “hunting” opportunities. They need to protect themselves from perceived dangers, which include unfamiliar individuals or environment. Cats are territorial animals. They feel threatened when their territory is disturbed, either by another animal or physically. Cats use scent, posturing, and vocalizations to communicate their unhappiness if they feel threatened. They have a superior sense of smell and hearing. Stress can occur due to strong or strange smells or sounds, which are undetectable or insignificant to us. Cats can be social animals, but their social structure differs from ours. Cats are often most content as a single cat or they may tolerate living with related cats, such as a sibling.

- ♥ Provide a safe place. Every cat needs a safe and secure place where it can retreat to so that it feels protected or which can be used as a resting area. The cat should have the ability to exit and enter the space from at least two sides. Most cats prefer that the safe space is big enough to fit only themselves, has sides around it, and is raised off the ground. Good examples of safe places are a cardboard box, a cat carrier, and a raised cat perch. There should be at least as many safe places, sized to hold a single cat, as there are cats in a household. Safe places should be located away from each other, so that cats can choose to be on their own.
- ♥ Provide multiple and separated key environmental resources. Key resources include food, water, toileting areas, scratching areas, play areas, and resting or sleeping areas. These resources should be separated from each other so that cats have free access without being challenged by other cats or other potential threats. Separation of resources not only reduces the risk of competition (which may result in one cat being physically prevented access to resources by another cat), stress, and stress-associated diseases.
- ♥ Provide opportunity for play and predatory behavior. Play and predatory behaviors allow cats to fulfill their natural need to hunt. Play can be stimulated with the use of interactive toys that mimic prey, such as a toy mouse that is pulled across a floor or feathers on a wand that is waved through the air. Cats need to be able to capture the “prey”, at least intermittently, to prevent frustration. Early in a cat's life introduce interactive play so they learn to avoid going after your hands and feet for play. Using food puzzles or food balls can mimic the action of hunting for prey, and provides more natural eating behavior. You can encourage your cat's interactive play by rotating your cat's toys so they do not get bored and rewarding with treats to provide positive reinforcement for appropriate play. If you have more than one cat, remember to play with them individually.

- ♥ Provide positive, consistent, and predictable human–cat social interaction. Cats’ individual preferences determine how much they like human interactions such as petting, grooming, being played with or talked to, being picked up, and sitting or lying on a person’s lap. To a large extent this depends on whether, as kittens, they were introduced to and socialized with humans during their period of socialization from 2–7 weeks of age. It is important to remember that every cat interacts differently and to respect the cat’s individual preferences. Remember to remind guests and all household members not to force interaction and instead let the cat initiate, choose, and control the type of human contact.
- ♥ Provide an environment that respects the importance of the cat’s sense of smell. Unlike humans, cats use their sense of smell to evaluate their surroundings. Cats mark their scent by rubbing their face and body, which deposits natural pheromones to establish boundaries within which they feel safe and secure. Avoid cleaning their scent off these areas, especially when a new cat is introduced into the home or there are other changes with pets, people, or the environment of the home. The use of synthetic facial pheromones, such as Feliway®, can mimic a cat’s natural pheromones and provide a calming effect in a stressful or unfamiliar situation. Some smells can be threatening to cats, such as the scent of unfamiliar animals or the use of scented products, cleaners, or detergents. Threatening smells and the inability to rub their scent can sometimes lead to problematic behaviors such as passing urine or stools outside the litter box, spraying, and scratching in undesirable areas.

### **Litterbox Environment**

Cats by nature are very clean and need adequate unsoiled locations to eliminate, especially in a multi-cat household. Some cats may avoid using a litter box located in a high traffic area or near cat doors or windows. In a multi-cat household, the presence of a more dominant cat near the litter box area may cause a less confident cat to seek out other places for elimination. House-soiling may occur if a cat had a negative experience while it was in or near the litter box (e.g. someone administered medications, family members or children trapped a cat in the box for any reason, a dirty litter box, or even being startled by sudden noises from nearby furnaces or other loud appliances).

- ♥ The design and management of the litter box are critical for encouraging acceptable elimination habits. The general rule of thumb is to have one litter box for each cat, plus one extra box in multiple locations around your home. More than one social group may occur in a home so it may be necessary to provide adequate resources for each group.
- ♥ Avoid placing food and water close to the litter box.
- ♥ Cats usually prefer quiet, private places. Avoid busy areas of the home and locations where a cat could be cornered in, blocked off, or unable to flee. If one cat prevents another cat’s access to the litter box (e.g. the box is down a hallway or in a room where another cat can block entry), it can be very stressful and cause the cat to house-soil because the cat is avoiding or cannot get

to that location. Keep the litter boxes separated in different locations. If the boxes are close to each other, cats consider this one large litter box. In a multi-level home, place a litter box on each level. If you have an older cat, place a litter box on the level where the cat spends the most time, as it may not be easy for the cat to go up and down stairs each time it needs to use the box.

- ♥ In general, bigger is better and many commercial litter boxes are too small. Litter boxes should be 1.5 times the length of the cat from the nose to the base of the tail. You can use large storage containers or other easy to clean items to hold the litter. You can place the lid behind the box to protect the wall. Older cats need a low entry so you can cut down the side (inspect for any sharp edges) for easy entrance.
- ♥ Cats are picky and fastidious. Try different types of litter until the cat indicates its preference. Temporarily provide multiple boxes with different litters and variable litter depths to see what your cat likes. Many cats dislike aromatic or dusty litters, litter deodorizers, and box liners. Most cats prefer soft unscented clumping litters.
- ♥ It is very important to remove waste at a minimum of once per day and add litter as needed. Wash the litter box once a month (more often if many cats or messy cats or sickness) using soap and hot water only. Avoid strong chemicals.
- ♥ Use a plug-in cat pheromone diffuser in the litterbox areas. These can be purchased at most pet stores, online, or at your veterinarian's office.

## Conclusion

Cats are complex little creatures.

Sometimes, a cat's response to treatment is a great way to figure out the underlying cause. Resolution of urinary disease/behavior will take some time. Keep in touch with your vet especially about how your cat is responding to their treatment plan. As one issues resolves, it may reveal a deeper issue ... Cat's are like onions ... ♥

## More Information

The information in this hand out is a compilation of resources and experience.

- ♥ <file:///F:/Client%20Handouts/Feline%20Enviro%20Guidelines.pdf>
- ♥ <file:///F:/Client%20Handouts/Feline%20Enrichment.pdf>
- ♥ <file:///F:/Client%20Handouts/Feline%20House%20Soiling.pdf>
- ♥ American Association of Feline Practitioners: <https://catfriendly.com/>
- ♥ Veterinary Information Network Partners: <https://veterinarypartner.vin.com/default.aspx?pid=19239&id=4951487>
- ♥ Zoetis Pet Care: <https://www.zoetispetcare.com/blog/article/signs-cat-needs-medical-attention>