

Housoiling—Cats:

Inappropriate Urination and Defecation and Urine/Fecal Marking

Basics

OVERVIEW

- Urinating, marking territory with urine, or defecating in a location that the owner considers inappropriate; defecation is the act of having a bowel movement
- Housoiling includes inappropriate urination or defecation outside the litter box and urine marking or fecal marking (where bowel movement is deposited in prominent locations outside the litter box)
- Inappropriate urination is characterized by the cat simply squatting and urinating on horizontal surfaces outside of the litter box
- Urine marking occurs most commonly when the cat sprays urine on vertical surfaces outside the litter box; also known as “urine spraying”
- The “lower urinary tract” includes the urinary bladder and the urethra (the tube from the bladder to the outside, through which urine flows out of the body)



GENETICS

- An inherited component may exist for urine marking; parents of affected individuals have been implicated as exhibiting the same behavior in some reports
- Persians and Himalayans that exhibit inappropriate urination should be tested for polycystic kidney disease, a genetic disorder

SIGNALMENT/DESCRIPTION OF PET

Species

- Cats

Breed Predilections

- Housoiling may occur in any breed
- Persians, Himalayans, and their crosses may be more likely to exhibit housoiling than other cat breeds

Mean Age and Range

- Inappropriate urination can occur at any age

Predominant Sex

- Housoiling can occur in either sex, intact or neutered; an “intact” cat is capable of reproduction
- Urine spraying is more common in intact and neutered males than in females

SIGNS/OBSERVED CHANGES IN THE PET

Inappropriate Urination

- Sudden (acute) or long-term (chronic) problem
- Urination in the vicinity of the litter box may suggest dissatisfaction with qualities of the litter box (such as location of the box, type of litter, frequency of cleaning of the litter box)
- Signs of lower urinary tract disease (such as straining to urinate, blood in the urine [known as “hematuria”]) or generalized (systemic) illness (such as increased thirst [known as “polydipsia”], lack of appetite [known as “anorexia”], vomiting, diarrhea) may suggest an underlying medical problem
- Presence of abnormal physical findings depends on whether problem is a disease-related or behavioral problem

Urine Marking

- Marking may be a response to household disruption or another cat(s) in or outside the home
- Usually manifest as spraying—the cat moves so the rear quarters are close to a vertical surface, the cat stiffens its posture, raises and quivers its tail, and directs a small burst of urine toward the vertical surface
- Observation of urine marks on vertical surfaces
- Urine marks around windows and door to outside suggest a response to the presence of an outdoor cat
- Urine marks on prominent furniture or other objects or urine sprayed on new objects brought into the home

Inappropriate Defecation

- Straining to defecate; vocalizing when defecating; hard, dry or bulky feces suggest painful defecation
- Painful defecation may lead to avoidance of the litter box, as the cat may associate the pain with the litter box

Fecal Marking

- Feces deposited on prominent, conspicuous locations

CAUSES

Medical Causes

- Lower urinary tract disease (such as feline lower urinary tract disease [FLUTD] or lower urinary tract infection)
- Presence of stones (known as “uroliths”) in the urinary tract (condition known as “urolithiasis”)
- Diabetes mellitus (“sugar diabetes”)
- Excessive levels of thyroid hormone (known as “hyperthyroidism”)
- Feline leukemia virus (FeLV) infection
- Feline immunodeficiency virus (FIV) infection
- Liver disease
- Senility or decline in thinking, learning, and memory, frequently associated with aging (known as “cognitive dysfunction”)
- Caused by or related to medical treatment (known as an “iatrogenic abnormality”)—administration of fluids, steroids, medications to remove excess fluids from the body (known as “diuretics”)

Behavioral Causes

- Soiled litter box
- Inadequate number of litter boxes or locations (one litter box per cat plus one is recommended)
- Litter box located in remote or unpleasant surroundings or subject to interference by dogs or children
- Inappropriate type of litter box—a covered litter box may maintain odors at an offensive level or may be too small to allow large cats to move around comfortably; a covered litter box allows other cats, pet dogs, and young children to “target” the cat as it exits
- Time factors—daily or weekly patterns of inappropriate urination suggest an environmental cause; sudden (acute) onset in a cat that previously has used the litter box reliably suggests a medical problem
- Type of litter—litter type that is unacceptable to the cat (for example, scented litter may not be acceptable); preference tests indicate that most cats prefer unscented, fine-grained (clumping) litter; change in litter box habits that coincide with introduction of a new litter type suggest an association with the change of litter
- Sudden shift from using litter in the litter box to urinating in an unusual location (such as urinating in a porcelain sink) suggests a lower urinary tract disorder
- Location—urination outside the litter box may suggest a location preference or influential social factors
- Social dynamics—consider social conflicts between cats and any changes in the social world of the cat at the time the problem started (such as addition of a new cat to the household)
- Probability of urine marking or spraying is directly proportional to the number of cats in the household

- Presence of outdoor cats may elicit urine marking or spraying around doorways and windows
- Urine marking or spraying may be a response to another cat in the home or outside the home
- Urine marking or spraying on grocery bags or new furniture suggests olfactory marking, associated with arousal in response to new stimuli
- Urine marking or spraying on clothing or bedding may be associated with specific people or visitors

RISK FACTORS

Inappropriate Urination/Defecation

- Inadequate or infrequently changed/cleaned litter box (or boxes)
- Litter box features (such as litter type, scent, box size or style)

Urine Marking

- Male
- Sexually intact
- Multiple-cat household
- History of urine marking by a parent of the cat

Treatment

HEALTH CARE

- Treat any underlying medical condition
- Use environmental and behavioral therapies before or with medical treatment (see www.vet.osu.edu/indoorcat)
- Restrict the cat from rooms in which urine housesoiling occurs
- If the owner requires immediate cessation of the problem, it is helpful to confine the cat to one room in the owner's absence; provide a litter box, water, food, and resting sites in this room; the cat can be let out of the room when the owner returns and is available for strict supervision of the cat
- Clean urine “accidents” with an enzymatic cleaner specific for this purpose

Inappropriate Urination

- Scoop out the litter boxes daily and clean thoroughly weekly and refill
- Avoid deodorizers, scented litters, or other strong odors in the vicinity of the litter box
- Move food bowls away from the litter box
- Provide at least one litter box per cat, distributed in more than one location, and avoid high traffic or noisy areas
- If the litter box is covered, provide an additional large, plain, uncovered litter box filled with unscented, fine-grained, clumping litter, with no liner
- Additional boxes may be provided, using a different type of litter in each (so-called “litter box buffet”) to evaluate the cat's preference for litter box type and litter
- If one site in the home is “preferred” by the cat for inappropriate urination, place another litter box over this site—after the cat uses this box regularly, move it gradually (approximately an inch a day) to a site more acceptable to the owner
- Confinement of the cat in a “safe room” when the owner is not available to supervise may be necessary

Urine Marking

- If signs suggest that the cat is spraying in response to cats outside the house, prevent visual or olfactory access to those cats; an environmental product (Feliway, Ceva Animal Health), a concentrate of synthesized feline facial pheromone, is available commercially as a treatment for urine marking—the product is sprayed regularly or diffused in the environment and may improve urine spraying in up to 75% of cases
- Block “inside” cat's ability to see “outside” cats
- Spend time interacting with the cat daily to focus the affected cat's attention away from other cats
- Medications play an important role in the control of urine marking

SURGERY

- Neuter intact male cats and spay intact female cats—this curbs spraying behavior in up to 90% of males and 95% of females that spray

Medications

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive.

- No drugs are approved by the federal Food and Drug Administration (FDA) for the treatment of urine marking in cats; your veterinarian will discuss the risks and benefits of medical treatment
- Selective serotonin reuptake inhibitors (SSRIs), such as fluoxetine and paroxetine
- Tricyclic antidepressants (TCAs), such as clomipramine and amitriptyline
- Buspirone
- Synthetic progestins—the risk of serious side effects has diminished their once-common use; discuss the risks and benefits with your cat's veterinarian
- Pheromone therapy (Feliway) reduces urine spraying

Inappropriate Urination

- Medications usually are not indicated, except in treatment-resistant cases or when inappropriate urination is associated with generalized anxiety or heightened arousal
- Medications to decrease arousal and anxiety—medications commonly used include fluoxetine, clomipramine, amitriptyline, and buspirone

Urine Marking

- Medications may be needed to decrease arousal, in order to decrease the frequency of urine spraying

Inappropriate Defecation

- Medication usually is not indicated

Fecal Marking

- Medications may be needed to decrease the arousal that drives this behavior

Follow-Up Care

PATIENT MONITORING

- Regular follow-up is essential
- Keep a daily log of elimination (that is, urination and defecation) patterns so that treatment success can be evaluated and appropriate adjustments in treatment can be made
- Number the litter boxes and count and record the number of urinations and defecations in each box and outside the litter boxes each day
- For marking behavior, after 2 months of successful medication management, as a trial, gradually decrease the medication over 2 weeks; if marking recurs, medication may need to be continued; consult with your pet's veterinarian
- An annual physical examination and blood work (complete blood count [CBC] and serum biochemistry profile) and urinalysis are recommended

PREVENTIONS AND AVOIDANCE

- Neuter cats
- Restrict cat numbers to decrease the probability of urine marking
- Discuss litter box selection, location, and cleaning routines with your pet's veterinary staff to avoid housesoiling problems

POSSIBLE COMPLICATIONS

- Treatment failure may result in the cat being euthanized, relinquished at an animal shelter, or released outside

EXPECTED COURSE AND PROGNOSIS

- Client expectations must be realistic—immediate control of a long-standing problem of housesoiling is unlikely; the goal is gradual improvement over time
- If untreated, urine housesoiling is destructive to household belongings and may negatively impact the human-animal bond, leading to relinquishment to an animal shelter or euthanasia

Key Points

- Urinating, defecating, or marking territory in a location that the owner considers inappropriate
- Early identification and treatment of housesoiling problems improve treatment success
- Cats do not housesoil to be spiteful or vindictive
- Avoid scolding or punishing the cat, as such actions will cause the cat to avoid the owner
- Understanding the underlying motivation for the housesoiling behavior is critical for treatment success
- Create a harmonious, predictable environment to decrease anxiety and arousal that may contribute to housesoiling
- Client expectations must be realistic—immediate control of a long-standing problem of housesoiling is unlikely; the goal is gradual improvement over time

CLIENT INFORMATION SHEET

FELINE HOUSESOILING

It is **critical** to rule out urinary problems such as infections or stone/crystals in the urine, or internal issues such as kidney disease. In many of these cases very treatable medical problems are found and the problem cured and/or controlled.

If medical issues are ruled out, then it is possible to help with a combination of medical and behavioral treatments.

Our protocol involves placing the cat in a more-confined area with it's own food, water and litter pan for about 2 weeks.

We often augment the litter with Cat Attract to help re-entice use of the box. We also generally advise non-scented sand-like cat gravel and meticulous cleaning of the box.

Any areas where the cat has soiled should be cleaned and an odor eliminator like FON or Nature's Miracle used to remove triggers. Bleach, vinegar, ammonia and so forth generally do not work and in some cases leave stronger odors to trigger the cat.

Medication usually involves the use of fluoxetine sometimes combined with CBD oil to lessen anxiety. Doses of medication are often weaned back as time and improvement begins.

After 2 weeks we allow increased access of the cat outside the room slowly re-introducing them to more areas of the house, but often keeping them back in "their room" when unsupervised until they show they can control their box habits again!

Annual or semi-annual monitoring of blood and urine will be needed to keep your pet on medication.