

# Feline urine spraying: behaviours and solutions



**Urine spraying is perfectly normal behaviour in felines. However, there are ways to manage and prevent the activity, writes Ellen O'Connor, Clanrye Veterinary Clinic, Newry, and final-year veterinary nursing student at Dundalk Institute of Technology**

Communication among domesticated cats is complex and involves various visual, tactile, auditory and olfactory methods. Despite not being a primary form of communication, urine spraying is a manner in which a cat leaves a scent message for others. From the beginning of adulthood, cats mark their territory using scent glands in their cheeks to mark the core area, normally indoors, and the periphery by spraying urine, typically outdoors. Although often viewed as unpleasant by owners when occurring in the house, urine spraying is not considered to be an abnormal behaviour among cats.

## AETIOLOGY

The act of spraying urine is very much perceived as passive aggressive and is common among all felines. Despite not being specific to either sex, the frequency of entire males actively spraying urine is remarkably higher, suggesting that it is possibly facilitated by sex hormones (American Association of Feline Practitioners 2004). The underlying purpose is to avoid aggressive encounters. The perception of a threat will cause spraying to occur in a specific area and will continue to be sprayed as the scent fades.

There is a strong correlation between urine spraying and multi-cat households (American Association of Feline Practitioners 2004). Limited territory and sharing of amenities, such as litter trays, food and water can cause conflict. Though subtle, more aggressive cats will force the submissive to spray in an attempt to retain living space.

Threats can also be outdoors and result in the cat feeling the need to mark the entrance to their home. It is common to find windows and cat flaps marked.

In addition, if the cat is ill or there are changes in the home environment, spraying may become common indoors. For example, urinary tract infections can make urination painful and cause the cat to adopt unusual positions to aid elimination (International Cat Care 2017). Owners are often unaware of the feline reasoning and may contribute to the problem while attempting to help. As it is a reactive behaviour, blocking or removing the area being sprayed can add to the stress and reinforce spraying. Negative reinforcement has a similar impact. Once spraying becomes an established behaviour, it may develop into a habit that is difficult to break.

## DIAGNOSIS

Urine spraying is noticeably different from toileting. When spraying, a small volume of urine will be eliminated, usually <2ml (International Cat Care 2017). Another difference is the position the cat will assume. When urinating, cats will often squat and produce a large amount of urine. Whereas to spray, they will back up against a vertical surface, often in an open location. Following this, they will spray the urine from a standing position, with their tail quivering (Cats Protection 2017). On occasion, the cat will also step back and forth on their hindlimbs and flex their elbows and forelimbs (American Association of Feline Practitioners 2004).

In order to determine the cause for spraying it must first be determined whether it is a medical or behavioural problem. When investigating a potential underlying medical cause, a detailed history and thorough physical examination should be taken. This should also include cognitive function and sensory perception. It is important to remember that the threat perceived, may be as simple as a cat going blind and that causing anxiety. It is also advisable to carry out diagnostic tests including urinalysis and haematology (Riccomini 2010).

## PREVENTION AND MANAGEMENT

Initially the cause should be determined as medical or behavioural. Following this the appropriate steps should be taken.

### MEDICAL:

If deemed that urine spraying is due to an underlying medical problem, this should be treated appropriately first.

### BEHAVIOURAL:

Primarily, the stressing factor should be minimalised if possible. In multi-cat households, it is recommended that all resources are made available to each cat. This means that there should be one feeding and water station, litter tray, resting perch and scratching post per cat and one to spare. This ensures minimal conflict within the feline residents and reduces the need to mark property by spraying. If this is insufficient, allocating certain areas of the house to each cat would also help as it creates clear boundaries without overlapping territories (Neilson 2009). Despite this, it is not advised to isolate the cats entirely, without the option of accessing other areas, as a permanent solution. The forced change in territory could cause anxiety of a different origin and incite the need for spraying, though simply in a different location.

In the case of free-roaming cats entering the outdoor territory, it is advisable to remove all enticing objects from the property. For example, the removal of bird feeders and other food sources will minimise the number of feline visitors. Additionally, closing blinds and blocking windows to prevent the indoor cat from viewing the outdoor threat would help reduce spraying. Unfortunately, this method is not as successful with cats who reside both indoors and outdoors as the perceived threat can not be managed as easily.

Furthermore, encouraging other forms of scent marking, like scratching, can minimise spraying. Providing enough areas for marking, varying in location, may help with this. Cleaning the sprayed areas is also important. However, ammonia-based product should be avoided as they smell similar to urine and encourage respraying. Highly targeted areas may also be covered using plastic to limit damage.

The introduction of pheromones to act as a calming agent and reduce the amount of stress can minimise spraying. Other drugs may be used; however, they may simply mask the problem temporarily. Urine spraying generally reappears once treatment is terminated (Heath 2000). An example of this is long-acting progestin therapy (Cooper and Hart 1992). As urine spraying is heavily influenced by male hormones, progestin therapy works to reduce their potency and causes a rapid reaction, which is both beneficial for the owner and for breaking the habit cycle. This means it is much more effective in males than females. Though often successful, this treatment should not be taken lightly, and owners must be made aware of the possibility of severe consequences after prolonged use. Routine blood work should be carried out when in use and therapy ceased immediately if side effects occur (Jones and Baldwin 1993). Additionally, the drug dosage must be continually reduced until stopped.

Neutering is also advised, approximately 90% of male and 95% of female cats reduce the frequency of urine spraying after neutering (International Cat Care 2017). This is a highly efficient method of maintaining minimal spraying and keeping a low number of cats in one household

### CONCLUSION.

Urine spraying is generally a behavioural trait adopted by cats in stressful environments. The stress they feel is not necessarily obvious and can often be overlooked. This means that when dealing with a cat who is displaying this sign, care and time must be taken to uncover the reason. Appropriate measures should then be taken to alter the environment to best suit the situation. Treatment is very much circumstantial, and every case is different.

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## READER QUESTIONS AND ANSWERS

### 1. WHICH OF THE FOLLOWING IS NOT AN OBSERVAION OF CAT SPRAYING?

- a. Backing against a vertical surface
- b. Large volume of urine
- c. Quivering tail
- d. Stepping back and forth with hindlimbs

### 2. WHICH OF THE FOLLOWING IS NOT A STRESS FACTOR?

- a. Free-roaming cats in the garden
- b. Many cats in the one house
- c. New cat toy
- d. Difficulty urinating

### 3. WHICH IS NOT AN APPROPRIATE MANAGEMENT SOLUTION?

- a. Using ammonia-based cleaning products
- b. Offering a scratching post

- c. Separating cats to own areas in the house

### 4. WHAT TYPE OF THERAPY MUST ONLY BE USED AS A LAST RESORT?

- a. Progestin therapy
- b. Pheromones
- c. Antihistamines

### 5. WHICH STATEMENT IS TRUE?

- a. Feline spraying is an aggressive act used to create conflict
- b. Feline spraying is an act of spite directed at the owner
- c. Feline spraying is a passive aggressive act used to avoid conflict

Answers: B, C, A, A, C.