

HOUSE SOILING

Why does he still do it?

As with many other behaviour related issues, house soiling can be the result of one or of a combination of several causes. Of the three authors whose work is represented in this article, one (Beaver B, 1999) cites 15 major reasons for urination and 12 for defecation, another author (Lindsay S, 2001) lists 10 likely aetiologies for people-perceived elimination problems and yet another (Overall K, 1997) has a concise list of 11 major causes. Dr Karen Overall, Veterinary Behaviourist, states “As is true for most other behavioral conditions, few good numerical or epidemiological data exist for canine elimination disorders”. This article will address Dr Overall’s list of 11 major causes of house soiling.

Medical Conditions

Degenerative joint disease that disallows a dog to hold position long enough to complete elimination can result in only partial elimination in an appropriate place and consequent completion of elimination inside the house.

Young dogs, geriatric dogs and bitches that have had hysterectomy with bilateral oophorectomy (removal of the ovaries) can sometimes have urinary and faecal incontinence. This incontinence can be misinterpreted as behavioural issues or other medical problems.

Overall lists many medical causes for inappropriate elimination including “...urinary tract disease...congenital or anatomical malformation; endocrine disorders...neurological abnormalities... and polydipsia unrelated to disease”. She further lists medical causes of faecal elimination problems as “...gastrointestinal parasitemia, gastrointestinal bacteremia...viral conditions...foreign bodies or gastrointestinal obstruction, anal sac disease, toxicosis... food allergies, rapid dietary shifts and gastrointestinal transit time alterations associated with age, condition, treatment regimens or activity level...changes in gastrointestinal tract physiology and motility”.

Incomplete Housetraining

Care should be taken about labelling a dog as being incompletely housetrained. The conclusion should only be made “...if the dog never had a prolonged period (at least a month) during which no elimination in the house occurred, regardless of household activity”. Incompletely house trained dogs usually belong to one of three broad categories

- i Dogs that pay no regard to the surface on which they eliminate
 - Guardians are often frustrated when mature rescue dogs that they expect to be house trained, fail to be so. These guardians do not understand that a rescue dog may have been free to eliminate wherever and whenever he pleases and, for many, the concept of elimination being illegal inside the house is foreign. This misconception is often exacerbated by the adoption of an adult rescue dog; the thought being that only puppies need house training.
- ii. Dogs that prefer a surface with which they have become familiar whilst a puppy
 - This is the time that puppies should be exposed to those substrates upon which the breeder and/or future guardian wishes the puppy to use for elimination. Leaving surface selection later than this can cause some long term problems with house training.
- iii. Dogs that prefer the place in which they have eliminated often and which hold the scent of the previous eliminations (e.g. the carpet).
 - Guidance is needed if a puppy is to learn to use a substrate that is required by the guardian. If guidance is not given then a puppy will eliminate in his preferred spot. This may be in an area that has become steeped in the scent of elimination where the guardian may not be aware the puppy has previously eliminated.



‘From around 3-5 weeks of age puppies no longer require maternal stimulation to eliminate. At this stage they are not particular about where they eliminate. By approximately 8½ weeks their physical coordination and developing senses allow them to begin to use a preferred surface.’

A further reason for incomplete house training is confusion caused by guardians not persisting with one method for long enough before changing to a different method of house training. This results in a confused dog that does not understand nor can he learn what acceptable behaviour is.

Dr Bonnie Beaver author of *Canine Behavior: A Guide for Veterinarians* also claims that many small breeds of dog are resistant to complete housetraining because of their juvenile qualities. Although guardians have bred these dogs to retain puppy like qualities in appearance, these qualities can also include a resistance to housetraining.

Insufficient Access

One cause of house soiling in a housetrained dog is lack of access to its normal elimination site. This can be caused by an oversight such as failing to unlock the access door or an unexpected delay in returning to allow exit for a crated dog. If this should occur over several days, an elimination problem could develop which careful consideration of guardian routine could allay. Dr Overall adds that as dogs age, their requirements alter and environmental change in order to accommodate these physiological changes should be considered in order to prevent house soiling.

A dog recovering from surgery or with physical ailments restricting movement may eliminate indoors because he is unable to reach his normal elimination area. Likewise, a dog may soil the house if the outside weather is inclement or treacherous, as household elimination offers an alternative choice. A dog dependent on the presence of another household pet may be reluctant to go outside to eliminate on his own.

Whatever the reason for insufficient access to his normal elimination spot, if access is denied a dog will, of necessity, eliminate in an alternative place.

Substrate Preference

Scott and Fuller (1965) showed that puppies as young as 7-8 weeks of age begin to show location and surface preferences for elimination. This evidence would suggest that housetraining attempts should be initiated by the breeder, before the puppy is rehomed. This could assist the new guardian's knowledge of the pup's preference resulting in them offering that preference or further training that would resolve angst against the use of a surface the guardian would prefer not to be used.

Dogs can learn to eliminate on appropriate substrates and can also learn to discriminate between those surfaces that are appropriate (to the guardian) and those that are not. However, in order to avoid house soiling problems a dog's guardian needs to choose options that best suit his/her needs. If a restrictive surface(s) is chosen then the earlier the dog is reinforced for correct elimination on this surface the better.

"Emergency" situations where the dog is not able to eliminate on his preferred substrate can lead to house soiling (see Insufficient Access above). Dogs that have a preferred surface for elimination that are then homed where that choice is not suitable to the new guardian can become guilty of house soiling. Whilst learning to use a new surface, accidents will also happen. Kennel dogs or dogs that have previously roamed may have no inhibitions about where they eliminate and hence have no substrate preference. House soiling is not an offence to these dogs and time and effort on the part of the dog/guardian team will be required to find a substrate that is acceptable to both dog and guardian. Dogs can develop substrate aversions also. If they only get the opportunity to void on grass but develop a substrate aversion for grass for some reason then house soiling can occur (O'Heare J, 2007 personal communication).

Anxiety/Separation Anxiety

Internalised stress can lead a dog to abnormal behaviours not previously displayed. In these cases medical causes for abnormal urination/defecation should be ruled out first.

Anxiety induced by punishment of inappropriate elimination can lead to a strengthening of the behaviour as the dog's functional urination turns to submissive urination as a response to a guardian's inappropriate punishment of the dog. As a consequence to this the dog may urinate further if the guardian then leans over or reaches for or touches the puppy.

Separation anxiety is often cited as the cause for house soiling in an otherwise well house trained dog, particularly when the soiling occurs just after the guardian leaves the house. The diagnosis of separation anxiety induced elimination is dependent on strict criteria in order to eradicate other possible causes such as incomplete housetraining. Beaver adds that the house soiling problems of a dog suffering true separation anxiety will occur whether the guardian leaves for 5 minutes or 5 hours.

Marking Behaviour

Entire male adult dogs aged 1-2 years of age are the more common offenders in urine marking. The presence of a bitch in oestrous within the local neighbourhood or, rarely, presence of menses in a household member, can also trigger this in-home marking by entire male dogs. This is not entirely hormonal as males and females, whether entire or neutered, can also use marking behaviour.

Beaver claims that the trigger for house marking behaviour can be as simple as the "...visit of a houseguest, a disrupted schedule, or a new dog added to the house". Invasion of territory or interference with "owner directed interactions" may be the dog's perception of these happenings.

Overall contributes the theory that in multiple breeding bitch households, social challenges associated with "...the presence or absence of young and the age of those young", multiple marking is common. She adds that marking can reflect relative social rank in female dogs, even in households of spayed dogs as "very confident females can choose (or not) to cover other animals' urine (male and female...) but when they do cover another's urine, theirs will then not be covered".

Lindsay cites highly excitable dogs and dogs that are reactive to novelty, as prone to urine marking in the house. He also lists the presence of strange dogs or even a strange package or the Christmas tree as targets for urinary marking. Due to the significance of olfactory cues in the dog world, a possible cause of continued marking could be in order to refresh the odour previously left by the dog himself or to overwrite a mark left by another dog.

Lindsay also claims that "...urination is an intrinsically reinforcing activity; that is the dog obtains some degree of pleasure or relief as the result of eliminating. Environmental cues occurring contiguously with elimination may gradually become discriminative stimuli regulating the emission of the behavior". This, together with a contextual component such as substrate texture or visual or location cues, could also be responsible for some perceived inappropriate elimination behaviour.

Fecal marking is not as common as urine marking and can be triggered by reduction in human interaction time or if the dog has been locked out from an area it was once able to frequent.

Submissive Urination

Submissive urination by a young dog in greeting a higher ranking dog is a normal submissive behaviour. Overall contributes to the list of causes for submissive urination those dogs that have "...been repeatedly corrected or kept in a dependent situation" e.g. kennel dogs or truly abused dogs.

Lindsay states that submissive urination occurs in young dogs and appears to be more common in bitches. He continues by saying that most dogs outgrow this behaviour but if submissive urination is mismanaged this type of urination can continue into adulthood. He lists three social situations in which a puppy or dog may show submissive urination

1. when the puppy or dog is reached for or
2. leaned over (in what might be perceived by the dog as a threatening gesture or posture), or
3. during episodes of excited social interaction (e.g. greetings).

Lindsay also indicates that some puppies are predisposed to exhibit submissive urination "...as the result of excitement and urethral incompetence" but that they usually grow out of it.

Excitement Urination

Overall claims that this type of urination is more common in young and exuberant dogs that may not have full neuromuscular control. Lindsay states that excitement urination is separate from submissive urination but punishment of excitement urination could lead to submissive urination. He also states that "Excitable dogs may urinate during play or at other times involving intense arousal".

Elimination Associated with Fear

Beaver states that encopresis (the contraction of bladder and colon muscles) can happen when dogs experience extreme fear. This type of faecal reaction is generally a single bout and is more explosive than normal defecation. With fear induced urination, the urine tends to dribble and can involve multiple occurrences.

In a fear inducing situation, such as a young dog being chased by a larger more aggressive dog, urination, defecation and/or emptying of the anal sacs can occur as a dog attempts to escape. This occurs most frequently with young dogs who generally outgrow this extreme scenario.

Some dogs have a genuine fear of the outdoors that may have been triggered by an unpleasant experience or noise that has resulted in a preference for eliminating indoors rather than any attempt to venture outside. Overall claims that this is a "...purely autonomic response and a normal sympathetic (fight or flight) reaction". She goes on to say that forcing these dogs to eliminate outdoors without attempts at treatment/behaviour modification could compound or worsen the elimination problem as well as perhaps create other fear related conditions.

Attention-Seeking Behaviour

In regard to inappropriate household soiling, Beaver says, "The reward for showing the behavior is usually an owner's attention, even if it is negative". In extremis dogs will seek their guardian's

attention by urinating or defecating in front of them as they would prefer to have negative attention than no attention at all. As with many house soiling problems, medical aetiologies should be ruled out before confirming a behavioural cause. Overall claims that some dogs train their guardians to reach for them as soon as they begin to eliminate in order to get them outside for elimination. Hence this type of soiling is usually only performed in the presence of the guardian and can result in the failure to eliminate outside because the intent of the soiling was attention, not elimination.

Geriatric Incontinence/Oestrogen-Dependent Incontinence/Canine Cognitive Dysfunction

Loss of eliminatory control in older dogs is often the result of the "...general aging process and deterioration of central control over the function". Spayed bitches can sometimes leak urine when relaxed or asleep. Lindsay says that this problem can be caused by an endocrine imbalance which can be treated with hormonal supplementation.

There is a hypothesis that geriatric cognitive dysfunction can lead to indiscriminate urination because of senility changes. Beaver says there is speculation that this may be associated with "...a decrease in activity of the cholinergic neurotransmitter system and higher than normal levels of monamine oxidase".

Summary

As observed by the Behaviour Clinic of the Veterinary Hospital of the University of Pennsylvania, the more common causes for canine elimination disorders are "...Incomplete housebreaking, separation anxiety, marking behavior, and substrate preference...". However there are many other causes for this behaviour problem, some here mentioned and still more in the literature (e.g. genetic disposition, dietary aetiology, classical and instrumental learning or incomplete urination/defecation). Common to the three authors quoted in this essay as causes for house soiling are medical conditions, marking behaviours, substrate preference, anxiety issues, incomplete house training, submissive urination, fear induced elimination and excitement induced elimination.

Irrespective of the cause for this household problem, careful, considerate and informed remedial action by the pet guardian, together with veterinary assistance where appropriate, should overcome all but the direst medical causes of inappropriate household elimination. Methods of housetraining are many and varied and are not mentioned in this essay as its focus is the causes of house soiling, rather than remediation of the problem. Lindsay summarises this problem well when he says "A dog's cleanliness and responsiveness to house training represents a significant factor in its success as a domestic companion. If dogs were not able to learn to urinate and defecate outdoors on schedule, it is unlikely that they would have attained the close social proximity that they currently enjoy with people...Notwithstanding the ease with which most dogs are house trained, some fail to acquire good habits in the first place or develop various behaviour problems involving inappropriate elimination as they develop".

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Bibliography

Please note: Precise references from the works quoted in this essay can be provided on request.

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