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Inappropriate Urination

Causes

The reasons for cats to urinate outside the litter box can be divided into four categories.

1) Disease.

This includes any disease that:

- Increases the urge to urinate (e.g., bladder infection).
- Increases urine output (e.g., kidney disease or diabetes).
- Causes behavioral changes (e.g., hyperthyroidism or senility).
- Creates a condition that makes it more difficult for the cat to get to the litter box (e.g., arthritis).

2) Litter box aversion.

Cats can be averse to a litter box due to:

a) past experience – cats may refuse to use their box if they had a negative experience in the box in the past. For example:

- Past painful urination.
- A sudden noise while in the box.

b) current conditions – cats may refuse to use their box if there is something about the box that they don't like. For example:

- The box is dirty (some cats won't use a box with any urine or stool in it).
- The box is covered.
- The box is uncovered (it is uncommon for a cat to prefer a covered box).
- The box is in an inconvenient location.
- The box is in too "public" an area.
- The litter is scented (or if the box is near something scented).
- They don't like the type of litter (they usually prefer sand or clumping litter).
- The area around the box is unfavorable (e.g., infested with fleas).

3) Environmental stress.

When cats are stressed, they may start urinating in inappropriate places. Although this may seem like a conscious decision on their part – especially when they urinate on a bed or clothing – it isn't. It is simply a response to stress (sometimes the location of the house soiling can suggest the source of the stress). Any stressful condition can cause a cat to urinate out of their box. These include:

- A new animal or person in the household.
- A person or animal no longer in the household.
- A new home.
- Crowded conditions.

- A person in the house who is under stress.
- Animals or loud noises outside.
- Wanting to go outside and not being permitted.
- Etc., etc., etc.

4) Marking behavior.

This is usually manifested as “spraying” – urinating on vertical surfaces. Often cats spray onto warm surfaces (eg., stoves). This helps to spread the odor of the urine. Spraying is most common in intact males but can occur in females and neutered cats. It can be triggered by some of the same stressful events that are listed above.

House soiling is often due to a combination of conditions – sometimes involving reasons from two or more of the above categories.

Treatment

The best way to treat house soiling is to treat the cause. Diagnosis and treatment may include:

1) A complete history, physical exam and urinalysis and then treating disease.

2) Manipulating litter boxes. For example:

- The general rule is one box per cat plus one box. In a household with three cats, if one cat isn't using the box, I recommend a total of at least four boxes.
- Cleaning the boxes at least daily. Initially I recommend cleaning the box as soon as it is used – once the problem is under control, this regime can be lessened.
- Using at least one uncovered box.
- Experimenting with different types of litter, including at least one unscented and including Cat Attract.
- Experimenting with different locations.

3) Decreasing stress. For example:

- Giving more attention to the cat.
- Increase “living space” – shelves, boxes, “kitty condos”.
- Covering windows (e.g., to prevent the cat from seeing another animal outside).
- Trapping and neutering stray cats outside.
- Using Feliway® - an artificial feline pheromone spray.

4) Decreasing the urge to mark. For example:

- Neutering intact males.
- Using Feliway®
- Eliminate odors.

5) Other things. For example:

- Placing a litter box in the area being “soiled”. (Eventually, this can be gradually moved.)
- Placing food in the area being “soiled”. (Eventually, this can be gradually moved.)
- Drugs – including catnip and prescription drugs (Elavil, Valium, buspirone, progesterone, etc.).

By Terrence P. Daly, D.V.M.

INAPPROPRIATE ELIMINATION DISORDERS

What is “inappropriate elimination”?

This is a term that means that a cat is urinating and/or defecating in the house but not in the litter box.

What causes it?

After medical causes of these problems have been ruled out, the source of the problem is considered a behavioral disorder. Behavioral causes of inappropriate elimination fall into two general categories: 1) a dislike of the litter box, and 2) stress-related misbehavior.

Why would a cat not like its litter box?

One of the main reasons for this is because the litter box has become objectionable. This usually occurs because it is not cleaned frequently enough or because the cat does not like the material in it. The latter is called substrate aversion; it can occur because the litter was changed to a new, objectionable type or because the cat just got tired of the old litter.

What stresses can cause inappropriate elimination?

There are probably hundreds of these, but the more common ones are as follows:

- a) A new person (especially a baby) in the house
- b) A person that has recently left the house (permanently or temporarily)
- c) Several new pieces of furniture
- d) New drapes
- e) New carpet
- f) Rearrangement of the furniture
- g) Moving to a new house
- h) A new pet in the house
- i) A pet that has recently left the house
- j) A new cat in the neighborhood that can be seen by the indoor cat
- k) A cat in heat in the neighborhood
- l) A new dog in the neighborhood that can be heard by the indoor cat

I feel that this is a problem that cannot be tolerated, even if the cat has to leave my house. Is that wrong?

No. Many people are very proud of their home and feel that way.

Can the problem be treated?

Yes, in most cases. However, the treatment is more likely to be successful if several of the following are true:

- a) The duration is less than one month when treatment begins
- b) There are only one or two locations in the house which the cat uses for inappropriate elimination
- c) It is possible to identify and relieve the stress-causing situation
- d) It is possible to neutralize the odor caused by the urine or stool
- e) You have only one cat

What is involved with treatment?

Most successful treatments rely on a combination of behavior modification techniques and drug therapy.

What are behavior modification techniques, and how are they used?

They can be described as **Aversion Therapy** and **Attraction Therapy**. The former repels the cat from the inappropriate location, and the latter encourages the cat to choose an appropriate location.

The purpose of **Aversion Therapy** is to make the area of inappropriate urination or defecation undesirable for the cat. There are many ways to do this, but the following steps have proven successful in a high percentage of cases.

A. A product to neutralize the odor of urine or stool should be used in places where inappropriate urination or defecation has occurred. If the objectionable location is on carpet, it is necessary to treat the carpet



and the pad below because most of the odor will be in the pad. This usually means soaking the carpet with the neutralizing product so it penetrates into the pad. Test an inconspicuous piece of carpet for staining before using any odor neutralizing product.

B. Cover the area(s) with aluminum foil and secure it to the carpet or furniture with masking tape. Aluminum foil is a surface on which most cats will not walk.

C. If the soil in potted plants is being used, place a lemon-scented air freshener at the base of the plant. This will usually repel the cat.

The purpose of **Attraction Therapy** is to make the litter box more desirable than the inappropriate site. The following are usually successful:

A. Purchase a new litter box; even well-cleaned litter boxes have odor deep in the plastic. It is important not to use a litter box with a hood. Although we like our privacy, most cats find a hooded litter box undesirable.

B. Purchase non-scented clumping litter. If your cat has not been using this type of litter, it will usually find it more desirable than the clay types. That increases the chances that the new litter box will be used.

C. Place the new litter box near the area of inappropriate urination until it is used for several days, then move it 2-3 feet (0.7-1 m) per day back to the desired location.

D. Keep the existing litter box in the normal location in case the aversion therapy causes your cat to return to it.

What drugs are used?

There are several that have been used. Generally, they fall into three categories:

A. Anti-depressant and/or anti-anxiety medication (amitriptyline, buspirone)

B. Tranquilizers, including diazepam and phenobarbital

C. Hormones, including megestrol acetate and medroxyprogesterone acetate

Are these drugs approved for use in cats?

No. All of these were developed for use in humans. However, most have been used on enough cats to give us reason to believe that they are very safe.

I understand that buspirone has gained popularity recently. What is this drug?

Buspirone (trade name Buspar®) is an anti-anxiety drug prescribed by physicians; it is a human drug, not a veterinary drug, although it has been used several years very safely in cats. It has been shown to be effective in a significant number of cats with elimination behavior problems.

What is its success rate?

Its success rate is not 100% but, for the intended purpose, it has been shown to be more effective than many of the other drugs.

How is buspirone dosed?

The following outline should be followed. If the sequence is not clear, please call for further instructions.

1. Give 5 mg (1 tablet) twice daily for 1 week

a. If there is no response, give 7.5 mg (1 1/2 tablets) twice daily for one week

1) If there is no response, discontinue buspirone.

2) If there is good response, give 5 mg twice daily for 8 weeks.

b. If there is good response, give 5 mg twice daily for 8 weeks.

2. If a relapse occurs after successful therapy, resume buspirone at a dose of 5 - 7.5 mg twice daily and continue for 6-12 months.

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