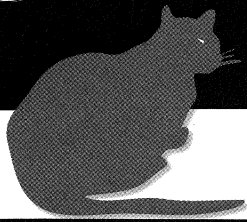




Expert information on medicine, behavior and health from a world leader in veterinary medicine



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Behavioral or medical problems can cause excessive vocalization.

## IN THE NEWS ...

### Research Seeks Earlier Detection of Heart Disease

By far the most common heart disease in cats is hypertrophic cardiomyopathy (HCM). The characteristic thickening of the muscle of the left ventricle seen with HCM affects the heart's ability to pump blood.

One complication is that blood clots form and dislodge from the heart and block blood flow in large arteries. The clots cause pain, nerve and muscle damage, and can lead to death. Treatment today is only minimally effective.

A study led by Fern Tablin, VMD, Ph.D., at UC Davis will analyze the activation of blood platelets — cells that help blood clot — in cats with HCM with the goal of early detection of the disease. Many affected cats show no signs. Others have labored or rapid breathing and lethargy.

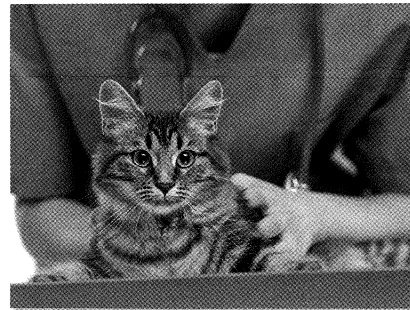
Although a cause hasn't been determined, the disease strikes certain breeds, such as Maine Coons and Ragdolls, more commonly, suggesting a genetic predisposition. More information is available at [www.vet.cornell.edu](http://www.vet.cornell.edu), keyword HCM. ❖

## The Truth About Litter Box Aversion

*House soiling isn't spite but a sign of a problem with health, a 'despot' in the house or the box itself*

Thinking outside the box has become a cliché, but it's still a praiseworthy trait. When your cat eliminates outside the litter box, however, it's a problem. House soiling — urination or defecation any place other than in a litter box — is a major reason that owners surrender their cats to shelters.

Cats don't avoid the box because they're being spiteful. They're raising an alarm. "Cats who eliminate outside the litter box are communicating to their owners that something is



The first step in solving litter box blues: an exam to rule out medical problems.

wrong, either with a specific aspect of their box, their health or relationship with another member of the household — feline or human," says Pamela Perry, DVM, Ph.D., a lecturer in animal behavior at Cornell University College of Veterinary Medicine. "It is the most commonly reported feline behavior complaint to veterinary behaviorists."

**Change of Terms.** The American Association of Feline Practitioners considered the problem

*(continued on page 4)*

## Anesthesia Presents Fewer Risks Today

*Improved drugs, precise monitoring and an increase in the number of specialists all contribute to greater safety*

If your cat needs to have anesthesia, you can rest easier about the procedure because it poses fewer risks today, thanks to newer drugs, precise monitoring and an increased number of board-specialized veterinarians.

"Our discipline has evolved," says Luis Campoy, LV CertVA, MRCVS, Section Chief of Anesthesiology at Cornell University College of Veterinary Medicine.

In the 1990s, the overall mortality rate for cats undergoing anesthesia was .29 percent. That rate dropped to .24 percent overall by 2008 and was .11 percent for healthy

cats. While that percentage may sound low, it equals approximately one death per 1,000 uses of anesthesia.

**Survival Rates.** "That is a huge number," says Dr. Campoy, a diplomate of the European College of Veterinary Anaesthesia and Analgesia. "The morality rate for humans is only .02 to .05 percent, so we know there's still a lot of room for improvement in the veterinary arena."

Some of the greatest progress has occurred simply in the practice of anesthesiology, he says. "We are better at knowing

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**LITTER BOX...** (continued from cover)

so significant — especially in the relinquishment of cats — that, along with the International Society of Feline Medicine, it issued guidelines last year replacing the term “inappropriate urination” with “house soiling.” The goal is to avoid suggesting cat misconduct. Quite simply: “The cat’s physical, social or medical needs are not being met,” the association says in its 22-page guide intended to help improve cats’ welfare and enhance the human-feline bond.

If your cat has developed an aversion to the litter tray, chances are he associates it with pain, fear or other negative experiences. But don’t give up on kitty. “The behavior is treatable,” Dr. Perry says. “With a bit of detective work, you can figure out what aspect is problematic and remedy it.”

The first step is a thorough veterinary examination. Numerous medical conditions can cause your cat to stop using the litter box, particularly if the problem results in pain while urinating or defecating. The prime suspects:

- ◆ Feline idiopathic cystitis (FIC), an often-painful condition of unknown cause. Signs include inflammation or infection of the urinary tract, strain-

ing to urinate, inability to urinate, bloody urine and/or crying during urination. It has no means of definitive diagnosis or treatment. “In my practice the distribution among the causes is fairly equal although FIC cases do outnumber other medical causes significantly in younger cats,” says Hazel C. Carney, DVM, MS, ABVP, co-author of the guidelines, in Garden City, Idaho.

- ◆ Diarrhea or abdominal cramps.
- ◆ Disease or failure of organs such as the kidney, liver, pancreas or thyroid that increase water consumption and urinary frequency.
- ◆ Intestinal parasites or malignancies that create an urgent need to defecate.
- ◆ Mobility problems, such as arthritis or accidents that prevent access.
- ◆ Other diseases that affect the bones or muscles.
- ◆ Cognitive dysfunction.
- ◆ Constipation. “It may hurt to defecate or the stool may fall out after the cat leaves the litter box — especially if the cat is older,” Dr. Perry says.



Litter boxes run the gamut from homemade trays to custom-made luxury stands to shelves of plastic models at your neighborhood store. The litter industry itself is a billion-dollar enterprise.

Tests to evaluate a cat that is house soiling may include a blood chemistry profile, urinalysis and fecal analysis, X-rays, ultrasound and urine cultures. Abnormal results may indicate a condition that can be corrected. “Managing any medical issues is crucial,” says Dr. Perry. “Otherwise the problem will never be resolved adequately.”

When medical issues have been ruled out, the veterinarian can take an in-depth history about your cat’s litter box behavior. Among the areas to be evaluated are the environment and the litter boxes themselves.

**THE EVIDENCE IN ULTRA VIOLET LIGHT**

If house soiling has become a problem in your multi-cat household, you can identify the responsible party by using a harmless prescription stain available from the veterinarian. Given orally, the stain reveals urine in ultra violet light. It takes several days for the stain to clear the system, so sleuthing takes time, especially if more than one cat is suspect. A motion-activated video camera might be a quicker tactic and also clue you in to the behavior causing the soiling.

**MARKING IS A DIFFERENT STORY**

Some cats mark vertical objects with a small spray of urine, often standing with their tail upright and twitching at the same time. It’s estimated that nearly a third of them have no litter box problems. They’re simply using communication skills that nature gave them, the ASPCA says.

They mark their territory to indicate stressful changes in the environment, the presence of cats outdoors, conflict with another cat in the home or, if they’re intact, their availability for mating. Spaying and neutering significantly reduce marking. Whatever its basis, marking can help keep unwanted individuals away, the ASPCA says, adding, “It creates an atmosphere of familiarity that makes them feel more secure.”

To reduce marking, the feline practitioners’ guidelines recommend eliminating triggers, such as installing motion-activated sprinklers on the lawn to shoo away roaming cats; cleaning soiled areas with an enzymatic cleanser and, in chronic cases, obtaining veterinarian-prescribed medications.

Cornell’s Feline Health Center suggests using the synthetic pheromone Feliway, available as a spray or diffuser, to discourage marking. It mimics cats’ cheek gland secretions and is intended to have a calming effect.

**BE ON THE LOOKOUT**

Signs that your cat may be about to revolt against litter or the box:

- ◆ Sniffs or looks at box without entering it or only partially enters it.
- ◆ Pokes at litter but doesn’t use it.
- ◆ Doesn’t dig in litter or turn in the box.
- ◆ Shakes litter off paws while in or exiting box.
- ◆ Doesn’t cover waste or scratches sides of box or walls.
- ◆ Overly quick to use and exit box.

**A Little Privacy, Please**

The ideal placement of the litter box is in a place without high traffic — a safe, quiet, draft-free area where your cat can still see the approach of people and other pets. It should be away from food and water because cats are disinclined to eliminate near where they eat or drink. Of course, the box should be accessible at all times with no obstacles in its path. The guidelines suggest that elderly cats with impaired vision would benefit from a nightlight near their sleeping area.

**The Overall Environment**

Elements of a safe, stress-free home are a secluded area in which the cat can feel secure and in control; consistent human interaction; opportunity for play and predatory-type behavior; separate areas for food, water, scratching and elimination, all “without being challenged by other cats,” the guidelines say.

A cat averse to the litter box may be startled by noise while using it. Another cat, one the guidelines describe as a “despot,” may frighten him. A dominant cat who monopolizes litter boxes may cause a less confident cat to eliminate elsewhere. A frisky dog may interrupt him while he uses the box. A motion-activated video camera can tell the tale.

**Litter Box Management**

The number, size and style of litter boxes all affect their use. The rule of thumb:

at least one box for each cat in the household, plus an extra — each in a separate area. Several litter boxes would be ideal for the averse cat. Size: Cats like a large roomy box with easy access. A minimum is one-and-a-half times his length from nose to the base of the tail. What they tend not to like:

- ◆ A covered litter box. It can be claustrophobic and hold odors inside.
- ◆ Noise from a self-cleaning motor.
- ◆ High sides that impede easy entry. Some cats prefer them for security. Others, such as those suffering from arthritis, have difficulty using them. If owners insist on having a high-sided box, they should select one with a lower front entrance.
- ◆ Plastic liners that cause cats to catch their claws when trying to dig.

**Why They’re Sensitive to Litter**

Cats’ sensitivity derives from their survival instinct. As night predators, their sense of smell and touch help them navigate their

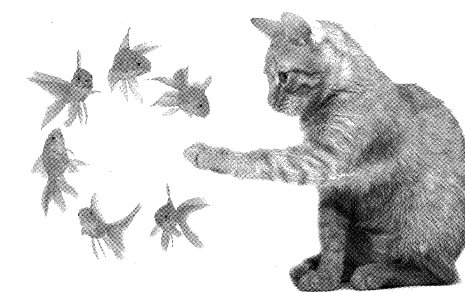


environment, the ASPCA says. Today those sensitivities can influence their reaction to litter. Cats develop a preference for a specific litter, often beginning in kittenhood. Preferences are individual and can change, of course, but this much is known:

Cats generally seem to like odorless, clumping litter. The guidelines say the best litters are fine-textured and scoopable at a depth of 1¼ inches.

**Cleanliness Counts**

Experts vary in their advice on scooping. Some say scoop once or twice a day at minimum. The guidelines, noting that cats eliminate as often as five times daily, recommend scooping every two hours. A change of litter and thorough cleaning of the pan with hot water and unscented soap should be done weekly. Chemical cleaners leave a lingering scent that cats



A stress-free home offers consistent human interaction, secluded areas for elimination and opportunities for play like this game with toy goldfish.

avoid. If accidents occur, an enzymatic cleanser can remove the odors.

**There’s Hope Ahead**

The resolution of house soiling problems depends on diagnosis, their duration and owners’ commitment, Dr. Carney says. “With my patients and a dedicated owner, I consistently see at least an 85 percent reduction in house-soiling behaviors within a month of diagnosis and instituting all the recommendations.”

The longer that owners work with the veterinarian to fine-tune techniques to help their cat, the greater their success rate, Dr. Carney says. “If someone really wants to keep their cat, we can usually come up with an effective plan.” ♦

**FOR MORE INFORMATION**

- ◆ “Feline Behavior Problems: House Soiling” under Health Resources on the Cornell Feline Health Center’s website, [www.vet.cornell.edu/fhc](http://www.vet.cornell.edu/fhc).
- ◆ “Guidelines for Diagnosing and Solving House-Soiling Behavior in Cats” by the American Association of Feline Practitioners and International Society of Feline Medicine at <http://bit.ly/1mc59fP>. It includes a brochure for owners. The American Animal Hospital Association, with 3,500 accredited practices in the U.S. and Canada, has endorsed the guidelines.