



Info Sheet

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Solving Litterbox Problems

There are several possible reasons cats may urinate outside the litter box:

1. Medical condition such as a bladder infection or urinary tract crystals
2. Dislike of the type of litter, the box location, or scared of the box
3. Behavioral: Territorial marking, stress or fear
4. Pain from declawing
5. Kitten has not yet learned about litterboxes
6. Summary

1. MEDICAL CONDITIONS

In most cases when cats are urinating or defecating outside the box, it is due to a medical problem. Although bacterial bladder infections are not common in cats, "idiopathic" urinary tract problems are extremely common. Most often they are caused by a high urine pH leading to the formation of struvite crystals in the urine. These tiny crystals make microscopic cuts in the lining of the urinary tract, resulting in inflammation and a burning sensation. Left untreated, the crystals can form partial or complete blockages, which can quickly lead to death due to toxicity as the urine cannot be eliminated from the body. These conditions are very painful and the cat may avoid the litterbox because he associates it with the pain, and as a cry for help.

You should take the cat to the vet and ask them to run a urinalysis to check for these problems. Request a complete urinalysis. They may find that he has a bladder infection and prescribe a course of antibiotics. If left untreated a bladder infection can spread to the kidneys and make her very ill and cause permanent damage to the kidneys. However if bacteria are not present, antibiotics are not necessary and instead the problem is likely idiopathic urinary disorder, and should be treated with diet and the urinary pH monitored carefully.

It is not uncommon for veterinarians to dismiss feline urinary tract problems if bacteria are not present, since bladder infections are more common in dogs. However you should persist in a diagnosis and possibly seek a second opinion if your vet dismisses your cat's problem as "behavioral" without thoroughly investigating medical problems first.

Intestinal parasites and diarrhea can also lead to urination and/or defecation outside the litterbox. You should bring a stool sample to your vet for analysis. If internal parasites are present, deworming your cat will be necessary.

Diet

Always feed a premium canned food or a raw diet. See www.felinenutrition.net, www.catnutrition.org and www.catinfo.org for more information. These high meat protein, high moisture foods are shown to produce an acidic urine which reduces the incidence or recurrence



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of bladder infections. Dry food leads to urinary tract problems due to chronic dehydration and the formation of an alkaline urine.

Urinary pH and L-Methionine

If your cat's urinary pH is above 6.5, you must immediately change to a grain free high-meat canned cat food, and consider supplementing with L-methionine, an amino acid that acidifies the urine. Prescription diets are available, but these are simply over-priced and not particularly good quality cat food with added L-methionine, which you can purchase separately and mix into any canned food. Check with your vet for dosage, 100 to 250 mg/day is a common starting point. If you supplement your cat's diet with L-methionine, you must test the urine pH at every 2 weeks to make sure it stays in the ideal range of 6.0 - 6.5. If urine pH falls below 5.5, there is a risk of oxalate crystals forming, and you need to reduce the or eliminate dosage of L-methionine. If the urine pH is still above 6.5, you may need to increase the dosage.

Hydration

Always encourage water consumption to help prevent minor urinary tract irritations that can lead to worse problems. By drinking plenty of water your cat's urinary tract will be flushed out, helping reduce the levels of bacteria and reducing the formation of crystals in the urine. Leave out fresh bottled or filtered water daily. Cats have a very sensitive sense of smell and chlorinated tap water will discourage them from drinking. They will only drink the bare minimum of water if they don't like the chemical smell and taste. Also you can try a cat water fountain, cats love fresh aerated water and will drink more. Feeding a portion of the diet as canned food is also a great way to increase water intake and prevent urinary tract problems. You can also mix extra water into your cat's canned food.

Supplements

Cosequin is sold by vets and online as a joint supplement, it contains glucosamine and chondroitin sulfate, proteoglycans which help repair joints and have an anti-inflammatory action. The lining urinary tract is also made up of proteoglycans, and feeding a joint supplement such as Cosequin can help rebuild the lining and reduce inflammation, therefore reducing pain and burning sensations when your cat urinates.

Herbs that can be beneficial for urinary tract problems is marshmallow root or cornsilk powder sold at health food stores. Give your cat 3-4 tablespoons of either powder daily for 7 – 10 days.

Cranberries have NOT been shown to be effective for urinary problems in cats and since fruits are poorly digested by cats we advise against giving any supplements containing or based on cranberry. However, **d-mannose**, one of the active ingredients in cranberry can be bought as a powder and is very effective in most feline urinary tract infections. It interferes with the ability of pathogenic bacteria to adhere to the urinary tract lining, allowing them to be flushed out with



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the urine. Give 1/8 the human dose recommended on the bottle, and make sure the supplement does not contain other active ingredients.

2. THE LITTERBOX

Your cat may also dislike the type of litter you are using. Stay away from scented litter or pellet-textured litter including those made of pine and cedar. Many cats are repelled by the smell and strange texture. Instead stick to plain clumping litter. Try [Cat Attract](#), a litter specially made to encourage problem cats to use the litter box. Even if your cat is being treated for a medical problem, they may continue to avoid the litter box because they associate it with the pain of urination. Keeping the box clean (for tips see [Dr. Pierson's website](#)) and using a litter like Cat Attract can help encourage your cat to return to the proper place.

You should have one litter box for each cat in your home, even though they will not use their own box, cats are very clean and territorial about their litter, and don't want to step in their own or another cat's mess. Unless you can clean a single litter box several times a day, use multiple boxes and clean them at least once per day. Avoid small boxes or short covered boxes, your cat needs enough room to stand up and turn around comfortable. Don't use boxes with doors because cats don't like the trapped feeling.

Make sure the box is placed in a quiet private place, but not one that is difficult to get to. If you have a large home, it's a good idea to place boxes in different areas, so your cat doesn't find himself far away from a box when nature calls. If the box is placed in a room where noise often scares the cat (laundry room or garage) or where he may be closed out of sometimes (a bathroom) that can discourage him.

Eliminating Traces of Urine Scent that Attract Your Cat

Make sure you clean any the soiled areas thoroughly with a product like Nature's Miracle - an enzyme cleaner available at many pet stores which breaks down cat urine at the molecular level so cats can't smell it (and neither can you!). That's important because if she smells urine there at all she will go there again. You need to soak carpet or furniture with Nature's Miracle and leave it to dry slowly. If you are not sure where all the smells are coming from, try using a black light - available at many pet stores for this reason. With the lights out, scan the area with the black light and contaminated spots will glow.

3. BEHAVIOR

Never ever punish a cat in any way for going outside the box - cats do not respond to negative reinforcement, and punishment will only cause stress which leads to more litterbox problems. If you see him have an accident, ignore him, clean up the mess immediately and pretend it didn't happen. Trying to convey your displeasure will not help stop him. Some cats may develop changes in behavior under stress. Try to keep your cat's life predictable and routine. For example



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feed at the same time each day and play at the same time each day. The more he feels like his life is orderly and he has control, the less likely he is to feel nervous or stressed.

The most common behavioral reason for urinating outside the litter box is hormonal - cats who are not spayed or neutered are driven to advertise their sexuality by urinating in various places. Un-neutered male cats are especially prone to "spraying" - a type of territorial marking - but females may also spray. Unspayed females in heat often urinate frequently in small amounts around the house. The solution is to get your cat spayed or neutered immediately! Preferably, cats should be spayed or neutered before they reach sexual maturity - ie around 4-5 months of age. Females spayed before their first heat cycle have a much lower incidence of deadly breast cancer, and males neutered before sexual maturity are far less likely to spray. See part B below for suggestions on how to deter spraying once it has begun.

Stress brought on by changes in your cat's life, such as introducing a new pet, a new baby, or moving can bring about behavior litter box problems. Keep in mind that your cat is not doing this to "spite" you or make you angry, they simply feel afraid or stressed out and this is their natural reaction to the stress. First, try to minimize your cat's stress by providing a quiet environment for him to relax in, such as a closed off bedroom with his own litter box. Always introduce new pets gradually and carefully (see our article on introducing new pets for ideas). Make your cat's daily schedule as predictable as possible. In extreme ongoing cases, your cat may require medication prescribed by your vet for stress and anxiety, often referred to as "kitty prozac".

Feliway

After the enzyme-cleaned spots are dry, spray the areas with a product called "Feliway", it is a spray you apply to walls, floor and furniture to prevent territorial urination. It mimics the pheromones that cats produce in their facial glands. It's available as a spray and as a plug-in diffuser in most pet stores and online at www.feliway.com

4. COMPLICATIONS FROM DECLAWING

Declawing involves the removal of the last bone in each digit (finger) of the paw. The joint is severed and the claw is removed along with the last bone which it is attached to. This extremely painful operation causes ongoing complications in many cats. Nerve damage is a common problem and early-onset osteoarthritis is frequent. Pain due to the amputation of the toes is sure to deter a cat from stepping into a litterbox full of gritty material that hurts his paws even more. If your cat is declawed and has shown an aversion to the litterbox, bring him to a vet for an exam to detect osteoarthritis, phantom pain, bone regrowths or other problems that can occur days or years after the surgery. There may be something the vet can do to alleviate or reduce the pain. In addition using a very soft-textured clumping non-clay litter is recommended, for example World's Best Cat Litter (made from corn).



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5. LITTER-TRAINING KITTENS

Most kittens learn from their mother how to use a litterbox. However some kittens taken from the mother early or born outdoors do not figure it out right away. Litter-training a kitten is not nearly as involved as house training a puppy, they pretty much train themselves. Confine the kitten(s) in one room with the litterbox, and gently place them in the box right after each meal. Use a litterbox they can easily get in and out of, and do not use clumping clay litter for kittens. If you allow the kitten out into a large area he may get lost and not find his way back to the box in time when nature calls, so gradually allow him out for longer periods once he is using the box.

6. SUMMARY

- Rule out medical conditions by visiting the vet and requesting a complete urinalysis. Check your cat's urinary pH.
- If your cat's urine pH is above 6.5, ask your vet about an L-methionine supplement to add to a good quality canned cat food. Prescription diets are available, but these are simply poor quality over-priced cat food with added L-methionine, which you can purchase separately. Always monitor urine pH when supplementing with L-methionine because if the pH falls below 5.5 another type of crystals - oxalate - can form.
- Always feed a grain free high meat canned food diet to maintain the proper urinary pH and encourage hydration to minimize the formation of urinary crystals and bacteria. Avoid all kibble.
- Encourage water consumption by always offering fresh water.
- Ensure that your cat's litter box is extremely clean at all times, is jumbo sized, and that you use a plain clumping litter that your cat likes.
- Clean up any accidents with an enzyme cleaner sold at pet stores, to ensure your cat is not drawn back by scent.
- Use feliway to reduce stress and discourage territorial marking.