

It's Like a Pandora's Box for Your Poor Pet

This singular-sounding disorder mimics so many far-ranging issues it's a nightmare to try to figure out what's really going on. Fortunately, if you eliminate some or all of these five common triggers, you hedge your bets against problems.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Indoor cats are at risk for bladder inflammation, aka feline interstitial cystitis (FIC), the most common specific disorder under the category of feline lower urinary tract disease (FLUTD)
- FIC is referred to as “Pandora Syndrome” by some experts because research suggests it’s much more complex than a single problem (inflammation) with a single organ (the bladder)
- After anatomic abnormalities and infections are ruled out, treatment for FIC-afflicted cats involves controlling pain and most importantly, eliminating environmental and metabolic stress
- A moisture-rich, species-appropriate diet is critical for preventing and managing FIC, as kibble-fed cats are at much higher risk of developing urinary tract issues
- Environmental enrichment, including clean litterboxes, access to multiple water sources and stress reduction strategies, plays a major role in preventing FIC recurrences

Editor's Note: This article is a reprint. It was originally published January 20, 2024.

Domesticated felines, especially indoor-only cats, tend to develop urinary problems not seen in their cousins in the wild. These issues fall under the umbrella of feline lower urinary tract disease (FLUTD), which describes a group of conditions affecting the bladder and urethra.

There are a number of potential causes of FLUTD, including cystitis, urinary tract infections, uroliths (stones), neurologic disorders, neoplasia (cancer), trauma, and anatomic and behavioral abnormalities.

FLUTD occurs at about the same rate in male and female cats. Those affected are typically between two and six years of age, and have several things in common:

- They're fed kibble
- They're overweight or obese
- They don't get enough exercise
- They use an indoor litterbox exclusively (meaning they rarely or never go outside)
- They're stressed by their environment

About 50% of cats who develop FLUTD will have a recurrence. One of the most common conditions under the FLUTD umbrella is bladder inflammation, aka feline interstitial cystitis (FIC), aka feline idiopathic cystitis. About two-thirds of FLUTD cases are FIC.

A cat with an inflamed bladder may strain while urinating and make an unusual number of visits to the litterbox. This is because he's not able to completely empty his bladder in one visit. There may or may not be visible blood in his urine as a result of an inflamed and irritated urinary tract. He might also be in pain and may cry out while attempting to urinate.

Beyond the Bladder — 'Pandora Syndrome'

Research into FIC points to the importance of stress reduction and environmental enrichment in treating the disorder. A 2011 study of both healthy and FIC-afflicted cats demonstrated that healthy felines display sickness behaviors when their routine is altered.¹ Behaviors such as refusal to eat, vomiting and litterbox avoidance tripled in healthy cats whose routines were disturbed.

Interestingly, the cats with FIC showed changes at the microscopic level that indicate they're hormonally and neurologically different than healthy cats.

The study results showed that cats with FIC experience significant symptom reduction in an enriched environment. Symptoms improved by 75% to 80% when FIC kitties were fed at the same time each day, their litterboxes stayed in the same location, and regular playtime was encouraged.

Veterinarian Dr. Tony Buffington of Ohio State University, an expert in the role of stress and disease in companion animals, believes FIC is part of a larger disorder that he has dubbed "Pandora syndrome."

"A name like 'Pandora' syndrome seems appropriate for at least 2 reasons," says Buffington. "First, it does not identify any specific cause or organ, and second, it seems to capture the dismay and dispute associated with the identification of so many problems (evils) outside the organ of interest of any particular subspecialty."²

Said another way, the disorder called feline idiopathic cystitis can't be accurately described as simple inflammation of a single organ (the bladder). Instead, it appears to be the result of a wide range of problems that extend beyond the bladder and lower urinary tract.

FIC Symptoms Are Wide-Ranging and Complex

According to Gregory F. Grauer, DVM, writing for Today's Veterinary Practice:

"FIC appears to be associated with complex interactions among the nervous system, adrenal glands, and urinary bladder. Environment also appears to play a role in the pathophysiology and, in some cases, FIC is associated with clinical signs related to the gastrointestinal, cardiovascular, respiratory, nervous, integumentary, and immune systems.

These signs tend to wax and wane, similar to urinary signs associated with cystitis."³

Symptoms of FIC directly related to the lower urinary tract include:

- Increased permeability of the bladder lining and wall
- **Dirty or poorly located litterboxes**
- Decreased urine output and frequency of urination caused by neutering of male cats
- Aggression among cats in a multi-cat home
- Confinement
- Obesity
- Insufficient physical activity
- Arthritis
- Insufficient water intake
- Possibly viruses

According to Grauer, when we look outside the lower urinary tract, cats with FIC have symptoms of increased tyrosine hydrolase in the brain, increased blood levels of noradrenaline, decreased cortisol levels after ACTH stimulation, and increased uroepithelial paracellular permeability.

All of these factors contribute to an elevated stress response, leading to increased inflammation and decreased bladder and urinary defenses.

The role of stress in cats with FIC isn't easy to quantify, but there's often a link between symptoms and recent events such as boarding, traveling, a new person or pet in the household, the use of pet sitters or even a change in the weather. Another stressor in homes with more than one cat is **intercat aggression** due to competition for food, litterboxes, space, etc.

Diagnosing and Treating FIC

Feline interstitial cystitis is a diagnosis of exclusion, meaning there are no abnormalities visible on X-rays or ultrasound imaging, and a urinalysis with sediment examination and culture and sensitivity testing rules out a bacterial infection.

Kitties with FIC typically have sterile urine, so they do not require antibiotic therapy. Unfortunately, they're too often given antibiotics, and then when symptoms subside in a week or so, everyone incorrectly assumes it's due to the medication.

In reality, it's simply the nature of the disorder that symptoms wax and wane. Controlled studies show that over 70% of cats with FIC also respond to placebo treatments.

Unnecessary antibiotic therapy has long-lasting, negative consequences to a cat's microbiome and immune system. Antibiotic therapy should be declined unless your vet has definitively proven (via culture) that your cat has a bacterial infection. The treatment objective for cats with acute interstitial cystitis is to reduce stress and provide pain relief as necessary.

The recommended approach for kitties prone to recurrent episodes is homeopathic Aconitum. You should keep some on hand, and at the first sign of a problem begin treatment (remedies vary depending on a cat's specific symptoms), and give flower essences for bladder support and stress as well.

Additional Help for Cats with FIC

Environmental enrichment to reduce stress is an effective management tool for all kitties, especially those with FIC.

Litterbox cleanliness is one of the most important pieces of the puzzle. Litterboxes should be scooped at least once daily and fully sanitized at least weekly. They should be located away from noisy areas and should give cats easy access to and from them, so they don't feel trapped or unable to escape. It's also important to have the right number of boxes (one for each cat in the household, plus one extra), as well as the size and type of litter your cat prefers.

In a multi-cat household, especially, access to more than one source of fresh water and food will help reduce stress, avoid intercat aggression, and increase water intake. It's also important that food and water stations are in safe, secure locations.

In the wild, cats are both predators and prey. They feel most vulnerable while eating, drinking, or eliminating. This vulnerability creates stress when your cat's food dish or litterbox is in a noisy or high traffic area.

Increased interaction between you and your kitty with FIC may also reduce her stress. Petting, grooming and play that stimulates hunting behaviors may help.

Increasing your cat's access to private areas is imperative, especially if there are other pets in the home. She needs her own resting and hiding places (sometimes these are the same spot) where she feels untouchable.

It's also important to realize that introducing a new cat to the household is one of the biggest stressors for kitties already in your home, and it triggers or exacerbates FIC. If your feline housemates are enemies, it's important to act. You'll find additional information [**here**](#).

Holistic Solutions flower essences are effective in managing anxiety-based physical ailments in kitties. Feliway pheromone spray is also useful for multi-cat households with tension, along with homeopathic remedies for specific symptoms.

Last but not least, if you're still feeding kibble, transition your kitty to a high-quality canned diet, and then to a fresh food diet. Studies show that moisture-rich diets help reduce the symptoms of FIC. In fact, this is often the most important piece to this frustrating puzzle, along with supplements that help build bladder defenses, including MSM, glucosamine, probiotics and several blends of herbs.

A nutritionally optimal, species-specific fresh food diet actually prevents many cases of lower urinary tract disease in kitties because it eliminates dietary and metabolic stress. Choosing foods free from synthetic nutrients, colors and rendered additives, GMOs, as well as minimally processed foods (to avoid feeding AGEs and acrylamides found in all extruded kibble) also helps reduce digestive, and in turn, immunologic stress.

Offer your cat fluoride- and chlorine-free, fresh, filtered water from glass or stainless steel bowls. Consider creating a quiet, ultra-low stress zone for your feline friend, including a room with natural sunlight (no LED lighting), no electrical equipment or routers emitting EMFs, with an optional dark hiding spot to snooze in during the day.

Sources and References

[VetStreet, December 14, 2016](#)

¹ [Journal of the American Veterinary Medical Association, January 1, 2011, Vol. 238, No. 1, Pages 67-73.](#)

² [J Vet Intern Med. 2011 May 12;25\(4\):784-796](#)

³ [Today's Veterinary Practice, November/December 2013.](#)
