

# Feline Idiopathic Cystitis

Feline Idiopathic Cystitis (FIC) is a disorder of domestic cats involving inflammation of the urinary bladder for unknown reasons and is the most common reason for non-obstructive lower urinary tract disease in cats under 10 years of age. FIC appears to be very similar to sterile interstitial cystitis in humans. FIC is characterized by frequent attempts to urinate (pollakiuria), blood in the urine (hematuria), straining to urinate (stranguria), and inappropriate urination outside of the litter box (periuria). These clinical signs may wax and wane over time. In the past, terms such as Feline Urologic Syndrome (FUS) and Feline Lower Urinary Tract Disorder (FLUTD) have been used to describe this condition. The exact cause of FIC is unknown at this time, but appears to be the result of complex interactions between the urinary bladder, nervous system, adrenal glands, husbandry practices, and the cat's environment. Possible causes include stress, genetics, viruses (affecting the urinary bladder or nerve cells), and autoimmune disease. The typical FIC cat is neutered or spayed, one to 10 years of age (most commonly two to six), mostly or completely indoors, overweight, eats dry food, and may be nervous, aggressive, or fearful.

## DIAGNOSIS

Diagnosis of FIC is accomplished by ruling out other causes of urinary tract disorders and inappropriate elimination including kidney disease, kidney or bladder stones, urinary tract infections (viruses, bacteria, fungal agents, parasites), urethral obstruction, anatomic abnormalities, neoplasia (benign or malignant), neurogenic disorders, trauma, or behavioral problems. A thorough history and physical examination are usually combined with laboratory investigations that may include a urinalysis, urine culture, blood tests (complete blood cell count, metabolic profile, and thyroid level), radiographs, and ultrasound. Other tests may be recommended depending on the individual case.

## TREATMENT

It has been estimated that 85 percent of cases of FIC spontaneously resolve within five to seven days regardless of treatment. No single treatment has been shown to be consistently effective in the treatment of FIC. Often we need to combine various treatments depending on the individual case. Phase I treatments are those we should consider initially. Phases II, III, and IV treatments are those that we should consider for persistent or recurring cases.

### Phase I:

1. Watchful waiting for spontaneous resolution.
2. Increased water consumption: WATER, WATER, WATER. Encouraging cats with FIC to drink more water is very important. Multiple bowls full of fresh water should be changed daily and should always be available in various locations. It seems that some cats prefer to drink from bowls full to the brim. You can also try flavored water (commercially available flavored bottled water or add tuna juice or low sodium broth or bouillon), dripping faucets or water fountains. In areas where the local water has high mineral content, bottled water may be helpful. Feeding canned food and/or adding water to dry food is STRONGLY recommended.

3. Client Education: Some helpful resources include:  
From the Cat's Point of View by G. Bonnecamp  
Felinestein by S. Delzio and C. Ribarich  
Cats for Dummies (2<sup>nd</sup> ed.) by G. Spadafori  
[www.PerfectPaws.com](http://www.PerfectPaws.com) - cat behavior and training information  
[www.vet.ohio-state.edu/indoorcat](http://www.vet.ohio-state.edu/indoorcat) - the Indoor Cat Initiative, The College of Veterinary Medicine at The Ohio State University
4. Litterbox Management: The goal of managing the litterbox is to make it as positive a place to eliminate as possible. There are a number of variables associated with litterboxes that can affect a cat's elimination patterns. See "Protocol for Cats with Elimination Disorders" (attached) for an in depth discussion of litterbox issues.
5. Environmental Cleaning: Residual urine odor can be a strong attractant to cats. Thoroughly cleaning soiled areas (especially carpet, carpet padding, and subfloor) with a good quality enzymatic cleaner is very important. Brands to consider are K.O.E. and Equalizer. You may need to consider professional carpet cleaning or even carpet replacement. Check out [www.PlanetUrine.com](http://www.PlanetUrine.com) for other options.
6. Medication: Analgesics, muscle relaxants, and tranquilizers may be considered in order to provide some short term relief from pain and/or muscle spasms in the bladder and/or urethra.
7. Laser Therapy: Our laser therapy unit is helpful in reducing the pain and inflammation associated with FIC and can speed healing. The treatment is quick and painless and can be repeated as necessary. Brochures are available. For more information, please ask us or visit [www.litecure.com/companion](http://www.litecure.com/companion).

## **Phase II:**

1. Review, Re-evaluate, Repeat Phase I
2. Diet: Sometimes prescription diets are recommended in an effort to control urine pH and mineral content. Again, feeding canned foods or adding water to dry food is STRONGLY recommended.
3. Stress Reduction: As in humans, it is believed that stress is a major component of many different feline medical conditions, including FIC. Stress can decrease the body's ability to fight disease, and can predispose to other problems. Stress can come from many sources including other cats (multi-cat households or unrelated cats outside), stressed owners, or the environment (household changes in pets, people, furniture, remodeling, etc.). Spending quality time (playing, grooming, feeding) with your cat everyday can be very helpful. Environmental enrichment may also serve to reduce stress. Consider increasing your cat's access to the outdoors (Invisible Fence, enclosures, free roaming, consider pros and cons), provide places to climb, scratch, hide, and look out windows, offer toys (fishing poles with lures or feathers), games (fetch, laser pointers), videos of birds or fish, live fish, or toys that intermittently release treats during play.

## **Phase III:**

1. Review, Re-evaluate, Repeat Phases I and II

2. Facial Pheromones (Feliway, nurtureCALM 24/7): Pheromones are chemicals that animals use to communicate with other members of their species. The absence to these chemicals in a cat's environment can create anxiety. Spraying pheromones in a cat's environment (in carriers, near litter boxes, in urination areas, where the cat likes to spend time) can have a calming effect. Feliway is available as a spray and as a plug-in electric whole room diffuser; nurtureCALM 24/7 is a pheromone infused sustained release collar.

#### **Phase IV:**

1. Review, Re-evaluate, Repeat Phases I, II, and III
2. Amitriptyline (Elavil): Amitriptyline is a human tricyclic antidepressant that is used in veterinary medicine to treat a variety of behavioral problems. In the treatment of FIC amitriptyline reduces anxiety, seems to decrease pain, helps relax the urinary bladder, and reduces inflammation by decreasing the release of inflammatory compounds.
3. Polysulfated Glycoaminoglycans: Part of the urinary bladders mucosal defensive barrier is made up of complex molecules known as polysulfated glycoaminoglycans or PSGAGs. Some cats seem to be helped by supplementing their diet with PSGAGs found in products like Cosequin and Elmiron in an effort to repair the lining of the urinary bladder.

#### **Other Treatments:**

1. Antibiotics: In the past, antibiotics have likely been over-prescribed for FIC because urinary tract bacterial infections are rare in cats less than 10 years of age. Unless a urinalysis and urine culture support the diagnosis of a urinary tract infection, antibiotics are generally not indicated. Occasionally a course of antibiotics may be tried in persistent or recurrent cases.
2. Steroids: Steroids have not been shown to have any detectable effect on the remission of the clinical signs of FIC. Steroids may predispose to bacterial urinary tract infection due to their suppression of the immune system.
3. NSAIDs or Non-Steroidal Anti-inflammatory Drugs: NSAIDs have not been shown to be effective in the treatment of FIC.

### **PROGNOSIS**

The prognosis for most cats with FIC is good. Many cats that suffer from FIC experience only one or a few episodes. Many cats seem to outgrow FIC. Unfortunately, 30 to 50 percent of cases recur within 12 months. Some cats will suffer from prolonged or recurring episodes of FIC and these can be very frustrating cases to manage.

If you ever have any additional questions about any of the above information, please do not hesitate to contact us. Visit us online at [www.WhiteBearAnimalHospital.com](http://www.WhiteBearAnimalHospital.com).

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