

# Lower Urinary Tract Disease in Cats

A Brief Guide • Part of the Educational Pet Disease Series from Lap of Love

## Signs & Symptoms

### Initial Symptoms

- Urinating outside the box
- Defecating outside the box
- Over-grooming genitals and belly
- Straining to urinate
- Bloody or pink tinged urine
- Frequent urinary attempts with minimal urine production

### Intermediate Symptoms

- Yowling when in the litter box
- Painful when lifted up
- Weight loss, anorexia
- Aloof and/or clingy
- Does not want to play, jump
- Does not like to be groomed, or stops grooming themselves

### Advanced Symptoms

- Increased irritability
- Drinking more water
- Drinking water from abnormal places like the tub, pool, sink
- Bald area on the belly
- Constipation, dehydration
- Hairballs

If your cat is straining in the litter box frequently, in pain, and is unable to pass any urine, they may have a urinary blockage, which can be life threatening. If these symptoms are noticed, seek attention ASAP.

## What Is It?

Feline lower urinary tract disease (FLUTD) is a collection of urinary conditions that involve the urethra and bladder. FLUTD can arise in response to several underlying factors including stress in the cat's environment and health conditions like bladder infections. The symptoms are relatively predictable including straining to urinate, yowling when urinating, urinating outside of the litter box, licking the genital and belly area, bloody or pink tinged urine, and frequent attempts in the litter box without normal or any urine production. Middle aged, male, overweight, and inactive cats on a dry diet tend to develop the disease most frequently. Lack of stimulation, indoor only lifestyle, and generalized stress have all been linked to FLUTD as well. Many cats heal from FLUTD and live a long life with zero to few recurrences. Some cats will continue to experience acute episodes; these cats often require chronic medical and environmental management. Under the broad umbrella of FLUTD, there are several manifestations of urinary tract disease that are reported the most for cats discussed below:

**Feline Idiopathic Cystitis (FIC)**, bladder inflammation arising from an unknown cause, is the most commonly diagnosed FLUTD condition. FIC is a diagnosis of exclusion; most cats will undergo several diagnostic tests to rule out infection, bladder stones, tumors, and other possibilities. Typically a urinalysis is the initial diagnostic test recommended which may show elevated levels of red blood cells, crystals, and concentrated urine. Bloodwork, urine cultures, and abdominal x-rays to check for stones are also commonly performed. The symptoms associated with FIC include straining to urinate frequently in or outside of the litter box, painful urination, vocalizing in the box, blood tinged urine, and generally only small spots of urine are produced each time. Despite having an unknown cause, the pain from the bladder inflammation can become severe for some cats. Treatment is variable and may include diet change, increased fluids by providing a water fountain or canned food options, pain and anti-inflammatory medications, stress relieving products, and environmental modification by providing a water fountain or canned food options. However, regardless of therapy, many cats with FIC will spontaneously recover shortly after showing symptoms even if not given medical treatments. Most cats recover faster and experience less distress with medical help, however.

**Bladder Stones** are common in cats and form from minerals in the urine precipitating into crystals. Stones can have various compositions based on the urine environment. Once formed, the crystals and stones can cause damaging irritation to the lining of the bladder, which predisposes some cats to reoccurring UTI's. Some cat breeds are more susceptible than others to the development of urinary crystals and stones. Bladder stones are generally easy to diagnose based on abdominal x-rays, abdominal ultrasound of the bladder, and sometimes by feel during a physical exam. Some stones and crystals may dissolve with short term diet trials, while others may need surgical removal. These cats are at risk of recurrent stone formation and generally need long-term dietary therapy in addition to proactive, regular urine monitoring to screen for issues. Most cats do very well with surgery and diet.



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## Management Tips

### Consider providing:

- Several small canned meals a day
- Fresh, filtered water changed daily
- A water fountain bubbler
- Multiple water bowls
- Cat litter attractants
- Multiple beds, bowls, etc. in multi-cat households to avoid bullying
- Stress relievers such as pheromone collars, calming diets, herbal liquids, stimulation, and exercise
- A short course of anti-anxiety medication such as Prozac, if needed
- Safe, small escape spaces such as a cat house, tree, ledge, etc.
- Multiple scratching posts and toys that mimic predatory chasing behavior

### Try To:

- Be consistent with medications
- Track appetite, urination, drinking, etc.
- Use prescription diets consistently
- Limit stress such as kids, noise, animals
- Maintain safe spaces and a schedule
- Keep up with preventative care
- Address concerns and pain ASAP
- Keep your pet trim and moving
- Pay attention to urinary habits daily
- Monitor urine a few times a year with a urinalysis at your veterinarian's office.
- Follow up advised re-checks of urine
- Never punish a cat for a urination issue
- Convert one or all cats in the house to wet food only (canned) diets
- Use an enzymatic cleaner for urine spots
- Clean bowls/litter boxes with a gentle detergent to avoid offensive residues

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**Urinary Tract Infections** can occur in any cat, though females tend to be more susceptible than males, and most cats are middle-aged to geriatric. Definitive diagnosis should be based on a urine culture from a sterile collected fresh sample which will identify, if present, the type of bacteria growing and its susceptibility to common antibiotics. Symptoms are similar to the other variations of FLUTD with the addition of a few more specific symptoms such as strong smelling urine, pain radiating into the lower abdomen, lethargy, and fever. Infections can arise from bacterial exposure in the genital area, excessive licking, bladder/kidney stones, bladder masses, and congenital disease (conditions present at birth).

**Urinary Obstruction**, which occurs commonly in young to middle-aged male cats, is a true emergency situation wherein a cat acutely can no longer pass urine, typically due to a plug of mucous and debris at the tip of the penis. The urinary obstruction leads to urine backup within the bladder, eventually leading to dangerous circulating toxin levels in the blood and possible bladder rupture. Cats will experience escalating pain, yowl, roll around, refuse to move, strain in the box repetitively, pant, and have a hard, painful belly. Diagnosis is generally obtained based upon the history, symptoms, and palpation of the abdomen upon physical exam to check for a firm, large, bladder. If caught and addressed quickly, inpatient treatment involving fluids and the passage of a urinary catheter to relieve the obstruction is very successful in reversing the trauma. Prolonged blockage can result in severe pain, toxic shock, coma, heart dysfunction, and death. Cats that have had a urinary blockage may or may not have concurrent infections, stones, FLUTD, masses, and others.

## Treatment

Pursuing the best course of FLUTD treatment can be frustrating as it is difficult to isolate a singular cause. Listed below are brief descriptions of the most commonly utilized successful and tested therapies.

**Surgery:** Bladder stones are generally treated with a dietary trial to dissolve the stone(s), or surgical removal, if necessary. Cats with stones are typically screened for infection and usually require chronic prescription dietary management with frequent urine re-checks to monitor urine health. Male cats that develop multiple blockages despite intervention may require a procedure called a perineal urethrostomy. This surgical procedure essentially removes the narrowest portion of the penis and creates a larger opening to the bladder. These are the two most common uses of surgery regarding generalized factors with FLUTD.

**Medical Management:** Several medications can help various forms of FLUTD. For infections, treatment and follow-up after treatment should be based on urine cultures. Psychogenic FLUTD (stress, anxiety) factors may respond to anti-anxiety medications such as Prozac, and supplemental products such as

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## Litter Box Etiquette

*Cats are clean creatures. Cats want a clean bathroom daily!*

- Have one more box than the number of cats. 1 cat = 2 boxes.
- The box should be large enough for the cat to turn around in it.
- Cats are sensitive to smell. Scoop twice a day, clean weekly with a gentle disinfectant, rinse well.
- Use about 2 inches of litter. Too much can feel unstable for the cat.
- Replace boxes regularly due to wear, scratches can harbor bacteria.
- Do not force the use of a hooded box. Many cats do not like these.
- Use a soft, large litter mats.
- Outdoor cats may benefit from dirt mixed into the litter like they would find outdoors.
- Unscented, clumping litter is considered the most cat friendly.
- Watch for bullying. Some cats block and guard the box/area.
- Do not place by high traffic areas, machines, loud equipment etc.
- Place one box in an area that does NOT require any jumping/ stairs.
- Think about function and comfort for the cat rather than for you.

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pheromone collars and calming diets. Idiopathic cystitis (unknown cause) may respond to a therapeutic diet trial, anti-inflammatory and pain medications, calming products, fluid therapy, and environmental modification at home.

**Dietary Therapy:** Many cats, those with and without crystals, can benefit from dietary therapy. Prescription diets, such as Hill's feline CD, are formulated to discourage crystal formation, decrease inflammation, and provide balanced nutrition. Ideally, all cats should have a moist (canned) diet to increase hydration and promote flushing of the bladder. As obese cats are prone to FLUTD, weight management is important. At home, using filtered water to avoid high mineral tap water can decrease a potential risk of bladder stone formation.

## Prognosis

The prognosis for FLUTD can vary widely from one cat to another. Male cats that ultimately require a perineal urethrostomy often have the poorest prognosis due to the high risk of chronic infections from the surgically created opening. Many cats with idiopathic cystitis that do not develop urinary blockages can respond to medical, dietary, supplemental, and environmental management, though patience and persistence is required. FIC cats may never experience another episode or may have infrequent, mild flares in the future. It is less common for the episodes to become worse, constant, and reoccurring. Straying from the prescription diet, changes in routine, stressful life changes, weight gain, and other diseases can predispose to a relapse of FLUTD.

The prognosis for bladder stones is very good for patients that can undergo a diet trial and/or surgery. With proper, consistent management based on mineral analysis of the stones from surgery, many cats live long, relatively normal lives. For those cats who seem to have stress-based FLUTD, the prognosis can range from good to poor. Some owners are unable or unwilling to withstand the symptoms such as urinating on clothing and bedding while treatment and management is instituted. In these situations, the behavior may result in owner elected euthanasia before treatment is implemented. Other cats may do very well with a combination of natural, medical, and environmental management. Due to the detailed nature of FLUTD, and each cat's individual needs, a discussion with your veterinarian, and consultation with a veterinary internal medicine specialist are the first steps to developing a personalized approach.

Before your pet's condition becomes unmanageable, and quality of life suffers, it is important to begin end-of-life care discussions. Learn about pet hospice care and/or euthanasia services in your area so you are prepared.

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