

FLUTD – Feline Lower Urinary Tract Disease

What is FLUTD?

FLUTD stands for feline lower urinary tract disease. It is an umbrella term that encompasses a group of diseases with similar clinical signs. The signs are straining to urinate, urination in inappropriate locations, bloody urine and licking of the hind end. FLUTD includes urinary tract infections, bladder stones, interstitial cystitis, urinary tract crystal formation, urethral obstruction. Many cats will have symptoms with out a determinable underlying cause. This is called idiopathic FLUTD or iFLUTD. Idiopathic means literally “from which we do not know”!

How is FLUTD diagnosed?

A combination of history and diagnostic tests are used to make the diagnosis of FLUTD. To find the underlying cause a urinalysis is always preformed. Often the urine will be cultured to rule out a bacterial infection. Blood work is usually required to rule out other systemic causes of the signs. We may recommend an x-ray for cats with lower urinary tract signs to rule out kidney, ureteral, bladder, or urethral stones. In some cases ultrasound may be needed to monitor changes inside the bladder and screen for certain types of stones.

How is FLUTD treated?

Since there are so many causes of FLUTD there are also many ways to treat it. Some cats will have a combination of different urinary problems and some will have just one. Common treatments for the various possibilities of disease are as follows:

- This is a painful condition. A variety of drugs have been studied for the treatment of this condition. Not one stands out as being the best in all situations. Your veterinarian will look at all factors in your cat’s case to determine the best pain relief measures. If your cat is able to pass urine, we may give him or her some fluids under the skin to help flush out the urinary tract. This is also a pain relieving measure.
- Urinary tract infection is treated with a course of appropriate antibiotics often for three weeks or more. Once the antibiotics are finished a urinalysis and sometimes a culture are repeated to ensure that the infection has resolved. Older cats and cats with congenital or acquired kidney failure are at highest risk for infection. Younger cats often do not have an infection.
- Bladder stones usually require surgical removal. This is a major abdominal surgery but generally cats heal very quickly and return to their normal activities in 1-2 weeks. Very small stones can sometimes be managed medically. After removal, a special prescription diet is usually required to prevent new stones from forming. The correct type of diet is determined by special analysis of the stone.
- Interstitial cystitis (or idiopathic cystitis) is a condition of the bladder wall that causes urinary tract infection symptoms but often there is no infection. With this condition the bladder wall is more sensitive due to an increased number of nerve endings and the mucous bladder lining is decreased or absent allowing exposure of the wall to urinary toxins. The cause for this condition is unknown. Some cats will have on and off symptoms for many years and others seem to “grow out of it” after just one or several episodes. Glycosaminoglycan supplementation is thought to rebuild the mucous layer, encourage bladder healing and decrease inflammation in the bladder. This therapy has been a mainstay of the treatment of interstitial cystitis in humans. A product called Cosequin is commonly used in cats for this purpose. It is very safe and is easily administered by sprinkling on food daily.
- Some cats will form urinary tract crystals for a variety of reasons. Diet, mineral content of food, water intake, urine pH (acidity), presence of certain bacteria in the urine and genetics are all contributing factors. The most common type of crystal is struvite, however some cats will form other types of crystal such as calcium oxalate. The best way to prevent urinary tract crystals is to feed a high quality **canned** diet and minimize the amount of fish and fish products in the diet. If your cat will accept it, adding water to the canned diet may aid in preventing recurrence. Your veterinarian can recommend an appropriate diet. In some cases the crystals can become so problematic that a special prescription diet is needed, usually for life.

- Recent studies have shown that the most effective treatment for iFLUTD is stress reduction through MEMO (multi-modal environmental modification).
 - Feliway is a cat pheromone scent that has a calming effect on cats. It can be purchased as a spray or plug-in diffuser and can greatly reduce the stress level of a cat.
 - Cats that live with other cats need to feel like they have their own territory. Making sure that there are plenty of cat beds and high perches will make a cat feel more secure in his home.
 - Having enough **clean** litter pans is a must. If you have 2 cats you should have at least 3 litter pans. Every cat has his or her own individual litter preferences but recent studies have shown that most cats prefer sand-like clumping litters with activated carbon (such as Fresh Step Scoopable). The larger the litter pan the better. Most scented litters should be avoided but some cats will prefer cedar scent.
 - There should be plenty of access to water in different types of containers, in several locations, and even some access to running water or a filtered fountain dispenser.
- Urinary obstruction is a **life-threatening medical emergency**. It occurs almost exclusively in male cats, neutered or intact. Male cats have a narrow urethra that often spasms when irritated and easily gets plugged by clumps of debris. These clumps are composed of any combination of crystals, blood cells, bladder cells, protein, cellular debris and bacteria. Once the plug is firmly lodged the urine is trapped in the bladder and begins to back up as more urine is formed. The dangerous toxins that the kidneys are trying to eliminate start to accumulate in the body. When these toxins get to a high level in the system they poison the heart and brain. In 24 hours a cat can progress from acting pretty normal to near death. If your cat has shown any signs of FLUTD it is very important to monitor urine production carefully even if it means separating them from other pets in a room with their own clean litter pan. If very little or no urine is produced then seek medical attention **immediately**.

Treatment for this condition involves hospitalization for several days with a urinary catheter, aggressive fluid therapy, correction metabolic imbalances and treatment of the underlying cause which may involve antibiotics, diet change, urethra-relaxing drugs, glycosaminoglycans and subcutaneous fluids at home.

In some cases the urethra gets severely damaged by the plug or recurrent blockage is a problem. A surgery called a perianal urethrostomy may be recommended. This surgery involves removal of the thin, damaged portion of the urethra within the penis and redirection of the wide, healthy portion of the urethra to exit just below the anus. This is a major surgery but once the patient has recovered they go on to lead a normal, happy life. The underlying cause, however, still needs to be addressed or FLUTD signs may continue.