



Feline Lower Urinary Tract Disease (FLUTD)

FLUTD is a collection of issues associated with the lower urinary tract of cats. **Clinical signs** are associated with either inflammation or infection of the bladder and/or urethra and include the following:

- Frequent urination (usually small amounts frequently).
- Straining to urinate.
- Inability to pass urine (e.g. blockage of urethra – more common in males)
- Crying out when urinating (due to discomfort).
- Blood in the urine.
- Urinating outside the litter box.

For reasons unknown, cats with FLUTD often seek out slick, cool surfaces on which to urinate. For example: tile, sink, tub, etc

It is postulated that they seek other areas to urinate because they associate the discomfort of urinating (inflammation) with the litter box and therefore go elsewhere. There is also an “urgency” feeling associated with inflammation/Infection of the bladder and/or urethra which causes the cat to quick find a suitable location in which to urinate.

The **causes** of these clinical signs are varied and may include the following:

***Inflammation** of the bladder lining and/or urethra. Just as in human women, cats can have inflammatory cystitis not associated with any bacteria or other infectious agent. The urine from these cats is negative if culture is done. These cases are often recurrent and self-limiting (bouts of inflammation go away on their own).

Treatment includes encouraging extra intake of water in order to keep the urine more dilute (dilute urine is less irritating to the bladder lining. Fountain waterers and canned food may be helpful to increase water intake.

It is thought that these cats may lack some of the protective layer that protects the bladder mucosa and therefore may also respond to treatment with some of the glucosamine/chondroitin supplements that are used for inflammation/arthritis in joints.

Some antibiotics have anti-inflammatory effects and may be useful to

treat inflammatory cystitis but they are usually reserved for infections. Non-steroidal anti-inflammatories are also used for some cats.

***Urinary tract infection** is another cause for FLUTD. In general, we tend to see more infections (bacterial or other agent) in the older cat population and inflammatory (without infection) in younger cats, but either condition can occur in cats of any age.

Treatment for cats with a urinary tract infection include antibiotics as the core of treatment (based on the type of infection), as well as possibly non-steroidal anti-inflammatories, glucosamine, cranberry extract, and even probiotics (based on recent studies that probiotics can support the immune system and may help treat or even prevent recurrent urinary tract infections). In male cats, especially, medication that relaxes the urethra is helpful (the urethra is much longer in a male cat than in a female cat. Encouraging extra water intake is also helpful.

***Bladder stones** are yet another cause for FLUTD symptoms. These stones may be too small to palpate by hand but some may show up nicely on ultrasound or x-ray. They can bounce around and irritate the bladder mucosa. Treatment depends on urinalysis results (crystals are often shed from the stones/although not always). Antibiotics paired with a special diet may shrink/eliminate the stones, depending on the stone.

Any cat that starts to void urine outside the litter box should be evaluated for FLUTD before assuming that it is solely a behavior issue. A medical issue such as FLUTD can and does lead into a location/substrate preference so resolving the medical issue quickly is a plus.

*For cats that have **repeated** urinary tract inflammation or infection, talk to your vet about preventive measures that can be taken. Just increasing their water intake (by offering canned food daily or a fountain type watering system) may be all it takes to ward off clinical signs of inflammation. For those cats with repeated infections, talk to your vet about starting probiotic therapy (e.g. Forti Flora by Purina). It is thought that cats with an overgrowth of certain bacteria in their intestinal tracts are more predisposed to recurrent urinary tract infections since bacteria that move retrograde up the urethra and into the bladder usually cause these infections. Probiotics not only keep intestinal bacteria in proper balance but can support the immune system as well. It is also beneficial to enrich the environment of the cats in order to decrease their overall stress level which contributes to the FLUTD symptoms. Offering vertical space such as cat trees or perches/towers is helpful as well as daily play time with the owner/cuddling time and offering things for the cat to see and hear such as bird feeders outside windows and leaving the television or radio on when owners are gone. Feliway diffusers can also help – this is a comforting pheromone that has been shown to decrease anxiety and stress in cats.*

Please note that any cat (male or female) that is unable to pass urine is a medical emergency. The inability to expel urine can quickly lead to kidney damage and even death.