

FELINE LOWER URINARY TRACT DISEASE (FLUTD)

Feline lower urinary tract disease/lower urinary tract inflammation/urologic syndrome can affect **cats of any age**. **Males have a higher incidence** than females. The typical clinical signs include: frequent urination of only small amounts of urine (which may or may not be bloody); straining to urinate; crying or other signs of discomfort during urination; inappropriate urination outside of the litter box. These signs usually **begin suddenly/acutely** and the cats are generally healthy otherwise. The **exact cause is not known** and in the majority of cases a urinary bacterial infection is not involved.

When presented to a veterinarian, a physical examination and various diagnostics to rule out urethral obstruction/blockage (particularly in males), bladder stones, kidney failure, a urinary tract infection and potentially bladder or urethral masses will likely be done. Once these are ruled out, the cat is presumed to have idiopathic FLUTD. Many of these cats will have alkaline/basic urine **with struvite/magnesium ammonium phosphate/MAP crystals** present. The crystals are presumed to cause irritation and inflammation of the lower urinary tract and the resultant clinical signs. Conversely, **calcium oxalate crystals** are precipitated in acidic urine and are increasing in incidence.

Initial management may involve fluid administration to help dilute out the urine and flush the lower urinary tract. Management of discomfort is difficult. Some cats seem to respond well to the non-steroidal anti-inflammatory, Metacam/Meloxicam. Empirical antibiotic therapy may or may not be instituted. **Long-term management** is usually attempted through **specific urinary diets**. Diets that acidify or neutralize the urine can prevent the precipitation of struvite crystals. Likewise, those that alkalinize or neutralize the urine can prevent oxalate crystal development. Not all cats will respond to these urinary diets. **Increasing the cat's voluntary water consumption** can also decrease recurrence. Adding tuna juice to the water bowl or permitting drinking from a running faucet are ways to promote this.

Owners must monitor these cats at home, particularly males, for progression to urethral obstruction. In this situation, mucus in the urine and the crystals form a plug that gets lodged in the urethra, where it narrows. This becomes a **life-threatening, emergency situation**, as the cat can not void urine at all.