Feline Lower Urinary Tract Disease (FLUTD)

Feline lower urinary tract disease, or FLUTD, is the term that describes the following group of clinical signs:

- bloody urine
- straining to urinate (can easily be mistaken for straining to defecate)
- urinating in unusual places
- urinary blockage (almost exclusively a male cat problem)
- licking the urinary opening (usually due to pain)

Some veterinarians may still be using the older term feline urologic syndrome, or FUS, or simply cystitis (meaning literally inflamed bladder). Because the syndrome can have many possible causes, it was renamed to discourage the perception that the clinical signs seen represent one disease with one cause. It was becoming too simple for medical professionals to diagnose FUS, prescribe a treatment, and look no further for a diagnosis, writing off recurrence to the classical course of the syndrome. Even less accurately, this condition is frequently referred to as a bladder infection, which it usually is not, in an attempt to simplify its description.

In fact, the key to treatment is the determination of a cause if this is possible (and it frequently is not). This web site attempts to answer the questions that cat owners have about this syndrome, its possible causes, and rational treatment plans to alleviate it.

What Causes FLUTD?

Central to treating a cat with FLUTD is determining which of many possible causes is present. It turns out that different diseases are common in different age groups of cats with this syndrome.

The average age of a cat with FLUTD is 4 years. Of all cats with FLUTD:

- 50% will not have a cause that can be determined despite extensive testing
- 20% will have bladder stones
- 20% will have a urethral blockage
- 1%-5% will have a true infection
- 1%-5% will have a urinary tract cancer
- 1%-5% will have had trauma to the urinary tract (i.e., have been hit by a car etc.)
- 1%-5% will have a combination of a bladder stone and an infection
If one looks only at cats over age 10 years of age, the likely possibilities are completely different. In this older group:

- 50% will have true urinary tract infections
- 10% will have bladder stones
- 17% will have a combination of infection and bladder stone
- 7% will have urethral blockage
- 3% will have urinary tract cancer
- 5% will not have a cause that can be determined despite extensive testing.

Further:

- 66% will be in some stage of kidney failure
- 5% will have urinary incontinence

**How Can These Possible Causes Be Sorted Out?**

In younger cats, there is a 50% chance that testing will be fruitless. Given this, testing beyond an examination and urinalysis may not be performed unless the syndrome is recurrent.

In older cats, it is more important to look for a diagnosis. A blood panel, urinalysis and urine culture will detect the 50% of cats who have urinary tract infections and the 66% that are in kidney failure. Radiographs will pick up any bladder stones.

**What Is a Reasonable Approach to Treatment?**

Obviously, the approach depends on which diagnosis has been reached. The following list shows areas regarding causes of FLUTD:

- If your cat has a documented urinary tract infection
- If your cat has bladder stones
- If your cat has a urethral blockage or partial blockage
- If your cat is in kidney failure
- If your cat seems to urinate in inappropriate locations for behavioral reasons
- If testing cannot reveal any specific cause
- If your cat is diagnosed with interstitial cystitis
- If your cat has struvite urinary crystals without urethral blockage
- If your cat has oxalate urinary crystals

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