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FLUTD (feline lower urinary tract disease)

In cats, diseases of the lower urinary tract (the bladder and urethra) are grouped under the term 'feline lower urinary tract disease' (FLUTD) as often it can be difficult to distinguish between diseases of the bladder and urethra, and many diseases will affect both structures.

What are the signs of FLUTD?

- Increased frequency and urgency of urination
- The presence of blood in the urine or blood spots in the litter tray
- Difficulty in urinating (spending a long time straining on the litter tray while passing only small quantities of urine)
- Occasionally, complete obstruction to the passage of urine (straining persistently without producing any urine)
- Extreme discomfort and pain while trying to pass urine
- Excessive licking under the base of the tail

What causes FLUTD?

- Idiopathic (unknown cause) but possibly caused by unrecognized infections or stress
- Urinary calculi (bladder stones)
- Bacterial infections
- Neoplasia (tumor)
- Anatomical abnormalities
- Urethral plugs (blockage of urethra with a mixture of crystals, small stones, mucus and inflammatory material)

Risk factors for FLUTD

- neutered male
- multicat households
- overweight
- decreased activity
- Siamese

How is FLUTD diagnosed?

The initial diagnosis of FLUTD is based on recognition of signs of lower urinary tract inflammation along with bloodwork and a urinalysis. If there is a blockage, the bladder may be distended, hard and painful.

Additional diagnostics:

Where clinical signs are persistent or recurrent, investigations may be required to differentiate idiopathic FLUTD from the other known causes of urinary tract inflammation such as:

- Bacterial culture of a urine sample
- X-rays and ultrasound examination of the bladder and urethra
- Cytology or biopsy of the bladder tissue

What is the treatment for FLUTD?

This depends on the underlying cause:

- Idiopathic disease may respond to medical treatment
- Bacterial infections require antibiotic therapy
- Bladder stones (calculi) may have to be removed surgically. Some may be able to be dissolved by using a special diet, or dietary additive

There is no universal treatment for FLUTD. Each case has to be investigated to determine the underlying cause, and then tailored to the individual cat. Sometimes despite appropriate investigation and treatment, clinical signs may still recur. This will require ongoing management.

Emergency blocked urethra treatment:

- A blocked urethra (usually in males) requires emergency treatment to remove the blockage, drain the bladder, and correct life threatening biochemical imbalances in the blood. While under sedation, a urinary catheter must be placed to allow continual urination. Treatment of uremic poisoning requires IV fluid therapy with monitoring of blood levels of waste products until uremia is no longer present. This treatment can be quite intensive and require multiple days in the hospital (sometimes running upwards of \$1000).
- Medication to relax the urethra and stimulate bladder wall contraction may also be required. Permanent urethral damage with stricture, inability to dislodge an obstruction, or inability to prevent recurring obstructions is all indications for perineal urethrostomy (amputation of the penis and urethra to create a female-sized opening for urination). This procedure is usually effective in preventing re-obstruction of the male cat, but is a last resort.

How can FLUTD be prevented?

It is impossible to completely prevent diseases of the lower urinary tract occurring.

However, FLUTD is more common in cats that have lower water consumption that are inactive and obese. As cats tend to drink very little, feeding canned food, or providing a special water fountain may increase water intake.

If a cat develops urinary calculi (stones), feeding special prescription diets may help to prevent recurrence of stone formation.

Emergency obstruction/precautions:

Early diagnosis and treatment can significantly change the outcome of FLUTD. Symptoms of obstruction are much more intense than those of bladder inflammation alone; **this is an emergency requiring immediate steps to relieve the obstruction.**

Symptoms include:

- Frequent non-producing straining -- no urine produced, discomfort, pain, or howling.
- "Bloated" abdomen due to distended bladder
- Subsequent depression, vomiting and/or diarrhea, dehydration, loss of appetite and coma may develop rapidly within 24 hours.
- Death results from uremic poisoning; advanced uremic poisoning may not be reversible even with relief of the obstruction and intensive care. Bladders can be permanently damaged as a result.