



Feline Lower Urinary Tract Disease



PETVET clinics are well-equipped, full-service, small animal veterinary practices providing comprehensive diagnostic, medical, surgical and dental care. We aim to offer quality service, giving your pet the maximum opportunity to lead a long and happy life.

ALL THE CARE YOUR PET NEEDS!



What is cystitis?

Cystitis is a general term referring to inflammation in the urinary bladder. The term cystitis does not imply a specific underlying cause.

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. Most cats with FLUTD will have cystitis.

What are the signs of FLUTD?

Typical signs in cats with FLUTD are those of inflammation and irritation of the lower urinary tract. The common signs are:

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

If your cat is squatting and straining without passing any urine and appears in pain or discomfort, it is important to seek urgent veterinary attention. These signs suggest complete blockage to the flow of urine, a potentially life-threatening complication if left untreated.

What causes FLUTD?

There are many potential causes of FLUTD, but often there may be severe inflammation of the bladder and/or urethra without an identifiable underlying cause ('idiopathic' FLUTD). These must be differentiated from other causes so that appropriate treatment can be given. Some of the potential causes of FLUTD are:

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



How is FLUTD diagnosed?

The initial diagnosis of FLUTD is based on recognition of signs of lower urinary tract inflammation. Symptoms displayed by the cat are often characteristic of FLUTD, but where there is doubt, analysis of a urine sample will confirm the presence of inflammation or blood. Veterinary examination will often reveal a small, thickened uncomfortable bladder. If there is a blockage the bladder may be distended, hard and painful.

What further investigations are required to diagnose FLUTD?

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

These investigations may include:

-  Laboratory analysis of a urine sample.
-  Bacterial culture of a urine sample.
-  Blood samples to look for other evidence of urinary tract disease or other systemic disease.
-  X-rays and ultrasound examination of the bladder and urethra.
-  Cytology or biopsy of the bladder wall.

Information from these investigations should help to identify a specific, treatable underlying cause if one is present.

What is the treatment for FLUTD?

This depends on the underlying cause. For example:

-  Idiopathic disease may respond to treatment with anti-inflammatory or analgesic ('pain-relieving') drugs. It is crucial that you *only* use drugs specifically prescribed by us as most human products are extremely toxic in cats.
-  Medication to heal the protective bladder lining.
-  Stressed cats may also require anti anxiety medication.
-  Bacterial infections of the lower urinary tract usually respond well to antibiotic therapy.
-  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 stream.
-  Medication to relax the urethra and stimulate bladder wall contraction may be required after unblocking the urethra.
-  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 the treatment has to be tailored accordingly. Sometimes, despite appropriate investigation and treatment, clinical signs may still recur, requiring ongoing management.



How is FLUTD managed long term?

Long term management is aimed to reduce the risk of new crystal formation and urinary system blockage by managing the environment inside the bladder. Diets such as Hills C/D, available in both wet and dry forms, are designed to reduce dietary Magnesium, Calcium and Phosphorus. These chemicals combine to form struvite crystals in the bladder. As well as irritating the bladder wall, resulting in signs of cystitis, struvite crystals can clump together and cause a blockage. FLUTD diets are also designed to modify the pH of urine. Crystals form in high pH (alkaline) urine so by lowering urine pH (acidification) struvite crystals can either be dissolved or prevented from forming. Unfortunately not all crystals form in alkaline urine, so the type of crystals must be identified before starting a therapeutic diet.

Crystals also form in very concentrated urine. Cats usually produce small volumes of very concentrated urine, thus creating ideal conditions for crystal formation. Encouraging cats to drink more water can decrease their urine concentration and reduce the risk of crystal formation. Providing drinking fountains, flavoured water, feeding moist food or adding extra water to the diet can increase fluid intake and reduce urine concentration.

Some very anxious cats are prone to recurrent bouts of FLUTD. The biochemical effects of anxiety results in increased urinary excretion of chemicals which damage the protective glycosaminoglycan (GAG) coating on the bladder wall. The GAG layer normally protects the bladder wall from the irritant effects of urine. Treatment with pentosan sulphate may help rebuilt the GAG layer. Anti anxiety drugs may also be required in severely affected cats. Often the symptoms of recurrent FLUTD can be reduced with judicious use of nonsteroidal anti-inflammatory drugs.

Cats that suffer multiple bouts of FLUTD often end up with irreversible damage to the urethra, predisposing them to even more blockages. These cats may need a perineal urethrostomy. This is a surgical procedure to remove the anatomical stricture in the urethra where blockages commonly occur. While this procedure does not stop bouts of FLUTD it does reduce the risk of repeat blockages when these episodes occur.

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 a lower water consumption, and in cats that are inactive and obese. These factors may affect how frequently a cat urinates. Avoiding obesity and encouraging exercise may help in preventing FLUTD. Reducing the risk of FLUTD also involves encouraging water intake, controlling urine pH and diet in the same way as managing long term FLUTD detailed above. Providing cats with a stress-free environment will also help.

Special Precautions

If your cat appears acutely distressed, is straining to toilet and is in pain immediate veterinary care is required. Early diagnosis and treatment can significantly change the outcome of FLUTD.

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