



## **Feline Lower Urinary Tract Disease (FLUTD)**

### **What is FLUTD?**

Feline lower urinary tract disease (FLUTD) describes a collection of conditions affecting the bladder and/or urethra of cats.

### **What are the symptoms?**

Cats with FLUTD will show some or all of the following signs:

- Frequent urination
- Painful urination
- Straining to urinate
- Urination in inappropriate places
- Blood-stained urine
- Passing small volumes of urine

**Occasionally the cat's urethra can become blocked and the cat is completely unable to urinate. This is a life threatening condition and requires emergency treatment. If your cat is unable to pass urine despite repeated straining contact your vet immediately.**

### **What causes FLUTD?**

There are a number of different causes, including:

- Idiopathic – inflammation of the bladder without a known cause, this is the most common and accounts for 60-70% of FLUTD cases.
- Bladder stones or crystals irritating the bladder lining
- Bacterial infection of the urine (this only accounts for a small number of FLUTD cases, around 5-15% and is more common in older cats.
- Anatomical defects
- Behavioural problems
- Bladder tumours
- Urethral plug –obstruction of the urethra in male cats due to an accumulation of proteins, cells, crystals and debris.
- Stress (e.g. moving house, new pets)

## **Which cats are most at risk?**

Although any cat can develop FLUTD those at greatest risk tend to be:

- Young to middle-aged
- Overweight
- Inactive
- Fed a dry diet
- Of a nervous disposition

## **Investigating a cat with FLUTD**

1. Discuss any changes in your cat's lifestyle/ environment with your vet as this may highlight stress factors that may be triggering the urinary tract disease
2. Your vet will perform a routine physical examination to check your cat's general health and to evaluate the bladder in terms of size and content. If your vet becomes suspicious of underlying disease, blood samples may be taken.
3. A urine sample is required to look for signs of infection, urinary crystals, glucose, or blood. A sample from a clean litter tray is adequate for these tests.
4. An ultrasound examination can usually be performed without sedation (although a small patch of fur will need to be clipped from your cat's abdomen) and is useful to look for bladder stones, growths on the bladder wall, and to assess the thickness of the bladder wall. If necessary a sterile urine sample may be taken directly from the bladder during the ultrasound examination, and this sample may be submitted to the lab for bacterial culture.
5. X-rays will show up some bladder stones. If necessary, a contrast agent can be used to highlight the bladder to check for bladder wall problems.

It is unusual to undertake all of these investigations at the start of a urinary problem. If initial tests highlight a cause then there will be no need to continue with investigations, and treatment can be commenced. However, if all of these tests are undertaken and fail to find a physical cause for the FLUTD then a diagnosis of idiopathic feline cystitis can be made.

## **The theory behind idiopathic cystitis**

Triggers within the bladder (such as bladder stones, concentrated urine, infection) stimulate nerve endings in the bladder wall and cause pain and inflammation in the bladder wall. It is believed that stress can also stimulate these nerves and this explains why it is possible to see severe bladder wall inflammation in the absence of any bladder stones, crystals or infection.

In addition, there may be a defect in the protective lining of the bladder, exposing the sensitive nerves of the bladder wall to the corrosive urine within the bladder.

## **Treatment**

- If an infectious cause is identified, antibiotics will be prescribed to clear the infection
- If urinary crystals are identified, a specialist diet designed to dissolve the crystals and/or prevent their formation will be provided
- If bladder stones are the cause of the problem, surgery may be required for their removal (in some cases a special diet can be used to dissolve stones depending on the type of stone)

In cases of idiopathic feline cystitis the following management options are recommended:

- **Reduce stress** – assess recent changes in diet, environment, new animal or human additions to the family, building work etc and attempt to provide a stable daily routine for your cat.
- **Increase water intake** - For example, feed wet food, or add small amounts of water/ gravy/ spring water from tinned tuna to the food. See separate document on how to increase water intake in your cat.
- **Increase the frequency of urination** – Increase outdoor access (some lazy cats may need to be physically taken out to the garden and locked out of the house for a short period twice daily); provide plenty of litter trays (ideally one more tray than there are cats in the household to reduce competition and bullying); clean litter trays after every use; try different types of litter (some cats prefer soil to commercial cat litter); try covered litter trays; ensure that litter trays are in a quiet site away from distractions such as movement of people or pets, or “humming” of electrical appliances such as fridges or washing machines.
- **Medication** – There are several medications that may be used in some cases of idiopathic cystitis. These include:
  - Cat pheromones (e.g. “Feliway”) which are useful to provide a sense of security within the home and reduce stress on a nervous cat. “Feliway” is available as a spray or as a diffuser for the home.
  - Supplements to replace defects in the protective bladder lining (e.g. cystophan or nutracs) which are available as oral capsules. Some are also thought to have direct pain-relieving effects.
  - Antidepressants may be required in persistent cases in which stress is thought to be a contributory factor. The most commonly used medication of this type is Amitriptyline. Some cats will require life-long treatment, but owners are often able to anticipate an attack of FLUTD and medicate their cats only during “danger periods”.