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Feline Lower Urinary Tract Disease (FLUTD)

Feline lower urinary tract disease (FLUTD) is the overall term for a group of conditions that cause bladder irritation in cats.

Regardless of the specific underlying cause, the symptoms tend to be as follows:

- Frequent urination
- Painful urination
- Straining to urinate
- Urination in appropriate 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



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cases. It may well have a genetic basis but is also aggravated by low water intake and stress.

- 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.

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



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- Living in a multi-cat household

Investigating a cat with FLTUD

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.



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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. If initial tests suggest that idiopathic FLUTD is likely, treatment may be commenced without further diagnostics. However, if problems persist, further testing should be carried out to make sure that your vet has as much information as possible about what is going on.

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, some cats may have 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



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- 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:
 - **Provide anti-inflammatory pain relief** - we usually use a meloxicam, a liquid anti-inflammatory to ease symptoms and help to settle the bladder back down whenever symptoms occur. Additional pain relief (such as gabapentin or tramadol) may be required in some cases.
 - **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. Some of the most stressful things for cats include feeding close to another cat, and having to share or wait for access to food, water, resting places, access to the outdoors.
 - **Increase water intake** – For example, feed wet food only, or add small amounts of water/ gravy/ spring water from tinned tuna to the food. Wet food is 80% moisture, so feeding this instead of dry food will automatically make a big difference. Some cats prefer running water and may drink from a tap. Others seem to prefer a pint glass instead of a cat bowl or prefer to drink outdoors. A water fountain is appreciated by cats that prefer



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flowing water. Whatever you do to increase your cat's water intake, continue to do it on a permanent basis to reduce the risk of future problems.

- **Increase 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 additional medications that may be suggested in some cases of idiopathic cystitis. These include:
 - o 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

- o Supplements which may replace defects in the protective bladder lining (e.g. cystophan or nutracs) which are available as oral capsules.

- o 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 clomipramine, but amitriptyline, gabapentin or mirtazapine may be more appropriate in some



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cases. 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”.

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