



## Feline Lower Urinary Tract Disease (FLUTD) - Part 2



I hope you enjoyed the first part of this series. This article covers the investigation of FLUTD and how it can be treated. It is important to read part 1 to fully understand part 2.

### Investigation of FLUTD

When investigating FLUTD, it is important to work out if there is a 'known' cause, or if we are dealing with 'idiopathic cystitis' (see part 1 for more information). This is the case especially when symptoms are persistent or recurrent, or your cat has a complete blockage. Getting a lot of information from you about your cat's symptoms and his/her lifestyle, and carefully examining him/her, can often narrow down the list of possible causes of FLUTD.



However, in the vast majority of cases, it is necessary to do some more investigation to establish the underlying cause, if any, in each case.

Getting a urine sample to check for blood, protein, crystals and bacterial infection is very important. To check for bacterial infection, the urine needs to be taken directly from the bladder using a needle (a technique called cystocentesis).

Taking the urine directly from the bladder prevents bacterial contamination of the sample from the urethra, vagina, penis and the environment. The urine will then be sent away to an external laboratory for culture (growing) of any bacteria present. It may also be necessary to ultrasound scan the bladder or take x-rays of the abdomen to check for bladder stones, changes to the bladder wall (eg. thickening), or tumours. If there is any concern about tumours, we may need to take a sample of the tumour and this usually requires surgery.

Finally, we often have to perform a blood test on your cat to make sure there is no secondary damage to the kidneys. This is very common following a complete blockage or a severe bacterial infection of the bladder, and it can be very serious.



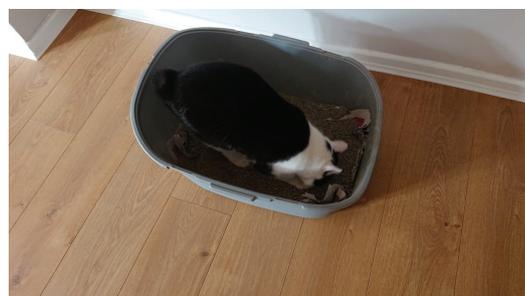
## Treatment of FLUTD

Although the treatment of FLUTD depends on the underlying cause, in **all** cases of FLUTD, it is important to increase water intake, treat or prevent obesity, encourage exercise and minimise 'stress' (see below). Feeding a veterinary prescription 'urinary diet' can both help treat the disease and prevent it recurring, as can supplements containing glycosaminoglycans, which protect the bladder and urethral lining (eg. 'cystophan'). However, there are additional treatments specific to both the 'known' causes of FLUTD and 'idiopathic cystitis', as I have described below.

### Treatments for 'known' causes of FLUTD

#### **Bacterial infections of the bladder (bacterial cystitis):**

Bacterial cystitis is usually treated very effectively with antibiotics, but the choice and effectiveness of the antibiotic depends on what species of bacteria are causing the problem and what antibiotics they are 'sensitive to' (ie. killed by). This is why taking a cystocentesis sample is so important. Infections of the bladder and urinary tract are infamous for growing 'multi-resistant' bugs (ie. bugs that are resistant to most or all of our antibiotics), so bacterial cystitis can be very serious.



#### **Bladder stones (urolithiasis) and urethral plugs:**

If your cat has large bladder stones, which have not managed to pass into the urethra, it is often necessary to perform surgery to remove them. However, we can make some types of stones 'dissolve' with a change in diet. The change in diet changes the pH (acidity) of the urine, and this makes them dissolve. **It is not possible to tell which type of stone your cat has based on a urine sample alone - we must either remove the stones by performing surgery, or trial a diet change and wait to see if they dissolve.**

If your cat presents with a complete blockage, due to a small bladder stone or urethral plug, it is essential that the block is released as soon as possible. This requires a general anaesthetic and passing of a urinary catheter to attempt to dislodge the block. The catheter often has to remain in place for a few days after the block has been removed because the pain and inflammation caused by the block can continue to cause problems with urination. Anti-inflammatories and pain relief are essential, and if your cat has developed secondary damage to the kidneys, they will need intravenous fluid therapy.



### **Strictures (narrowings):**

Urethral strictures are very difficult to treat, and it is often necessary to perform a special type of surgery (called a penile urethrostomy - this applies to male cats only but strictures in female cats are extremely rare) to allow urine to by-pass the stricture. Should this be needed, the advantages and potential complications will be discussed with you in detail.

### **Neoplasia (tumours/cancer):**

The treatment of bladder tumours depends on the tumour type, size and location and, again, will be dealt with on a case by case basis.

### Treatment of 'Idiopathic Cystitis'

In the case of idiopathic cystitis, increasing water intake and minimising stress are the most important aspects to treatment.

Increasing water intake can be achieved by feeding wet food rather than dry (or soaking the dry food in water), providing a number of water bowls in different places, providing 'flavoured' water, providing running water, and using ceramic bowls rather than metal or plastic bowls.



In order to minimise stress, we try to find out what the 'stressor' is and target that.

Unfortunately, this is not always possible. It is very common for cats to develop idiopathic cystitis following an obvious change, such as arrival of a new dog next door, the start of building work, or the introduction of a new pet or baby. However, an obvious change may not always be present, and the stress may be 'over-crowding' (too many cats) or 'owner stress' (the cat is 'feeding off' your stress - a controversial issue, I know). In addition, your cat may show no other signs of being stressed and appear quite happy otherwise. **Do bear in mind, the most common cause of stress in cats is another cat, either in the same home or otherwise!**

Other treatments for idiopathic cystitis include anti-inflammatory pain killers, muscle relaxants, anti-depressants and pheromone sprays (eg. 'Feliway').

FLUTD is a very complex condition but I hope I have made it more understandable. If you have any questions at all about FLUTD, please do get in touch. In the next article we will have a look at urinary incontinence in dogs.