



## FELINE LOWER URINARY TRACT DISEASE (FLUTD)

Cystitis is a general term referring to inflammation of 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" or FLUTD as 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
- Incontinence of accidents i.e. outside the litter box.
- Refusing to eat
- Increased grooming or licking around the urinary opening.
- 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.
- Occasionally complete obstruction to the passage of urine (straining persistently without producing any urine).

Urgent veterinary attention is required if the cat is unable to pass any urine as complete blockage is rapidly fatal.

### What causes FLUTD?

There are a vast number of potential causes of FLUTD, some of the potential causes are listed below:

- Idiopathic (inflammation for no known cause) but possibly caused by unrecognized viruses or bacteria
- Urinary calculi ("bladder stones")
- Bacterial infections
- Neoplasia (tumours)
- Anatomical abnormalities
- Urethral plugs (blockage of the urethra with a mixture of crystals or small calculi/stones, mucous and inflammatory material).

The age, breed and gender of the cat may play a role in the type of FLUTD it has. Younger cats are more prone to struvite urinary stones whilst older cats are more likely to develop calcium oxalate urinary stones. Certain breeds are prone to certain stones such as Siamese and Struvite urinary stones. FLUTD is common in both spayed female and neutered male cats. Risks for urethral plugs and calcium oxalate stones are higher in neutered male cats. Kidney disease can also increase the risk of FLUTD.

### How is FLUTD diagnosed?

The initial diagnosis of FLUTD is based on the identification of signs of lower urinary tract inflammation. The clinical signs displayed by the cat are often characteristics of FLUTD, but where there is doubt, analysis of a urine sample will confirm the presence of inflammation or blood.

Initially, a cat with uncomplicated FLUTD may be treated symptomatically by a vet e.g. with antibiotics. However, if the signs do not respond to this treatment, or if there is recurrence of the clinical signs further investigation may be required to identify the underlying cause. This may include laboratory analysis and culture of a urine sample, blood analysis or imaging (x-rays or ultrasound) of the bladder.

### How can FLUTD be treated and prevented?

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 to the individual cat. Sometimes despite appropriate investigation and treatment clinical signs may still recur, requiring further therapy.

Here are some basic tips that may help to reduce the incidence of FLUTD:

1. Feed a balanced diet. This must contain the correct balance of minerals (low magnesium) and provide an appropriate urine pH. Some urinary stones form due to too acidic or too alkaline urine.
2. Keep your cat at a healthy weight. Obesity increases the risk of FLUTD.
3. Provide lots of water for the cat to drink. Sometimes cats don't like to drink from a bowl that's too small or isn't full. They also don't like to drink from a bowl that is near noisy appliances or their litter tray. Automatic water fountains are available to encourage your cat to drink. Wet food diets may be useful also.
4. Litter tray etiquette. A cat may hold on instead of using a litter box that is dirty, shared with other cats, has the wrong litter or is not private enough. Use these guidelines:
  - a) Fill the box with litter to three inches deep
  - b) Avoid perfumed litters
  - c) Clean it daily
  - d) Wash the litter box at least monthly with warm, soapy water and allow it to dry thoroughly.
  - e) Avoid moving the litter tray
  - f) Do not place it near food or water.
  - g) Keep litter away from noisy appliances e.g. washing machine or dryer.
5. Minimise stress. House guests, conflict with other pets and lack of suitable places to rest or hide can all contribute to FLUTD. Some ways of reducing stress may include:
  - a) Plenty of exercise, toys and playtime.
  - b) Scratching posts and resting perches
  - c) Pheromone therapy e.g. Feliway diffusers or sprays.
6. Lots of exercise. This will reduce stress and body weight.

*Written by P Honson 2017*