

# Feline Lower Urinary Tract Disease





## Some urinary tract problems can be fatal

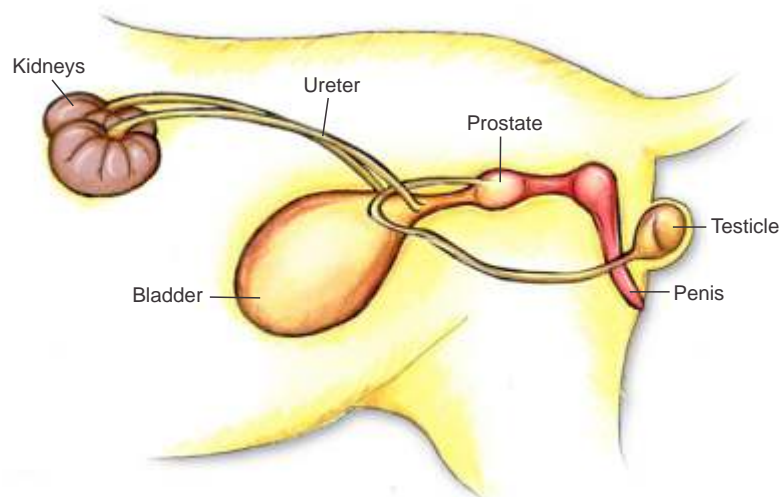
Cats occasionally develop urinary tract problems and it's important you recognise some of the signs. They can include;

- Frequent urination
- Straining to urinate
- Bloody or discoloured urine
- Inability to urinate (sometimes mistaken for constipation)
- Urinating in unusual locations

In order to recognise and properly treat lower urinary tract diseases (LUTDs), it is helpful to have an understanding of the structure and function of the urinary tract. The normal urinary tract of a cat consists of two identical kidneys. Urine formed by the kidneys passes into pliable tiny muscular tubes called ureters.

The ureter from each kidney is connected to the urinary bladder. Rhythmic one-directional contractions of the ureter walls transport urine formed by the kidneys into the bladder for temporary storage. Urine contained in the urinary bladder can be voided out of the cat's body through a tube called the urethra.

Urine is normally retained in the bladder primarily by resistance in the urethra caused by muscular tone. When the bladder becomes filled with urine, however, the muscular wall of the bladder contracts while the muscles in the urethral wall relax. The result is complete ejection of urine stored in the bladder.



## What are the clinical signs?

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### **What are the clinical signs of diseases of the bladder and urethra (or LUTDS)?**

The clinical signs include

- Difficulty urinating
- Blood in the urine
- Crystals in the urine
- Urethral obstruction

Urethral obstruction is the complete inability to move urine from the bladder through the urethra to the outside. These signs may have different causes. Thus, there is a need for evaluation of each cat as an individual to determine the proper form of treatment and prevention.

### **What causes LUTD?**

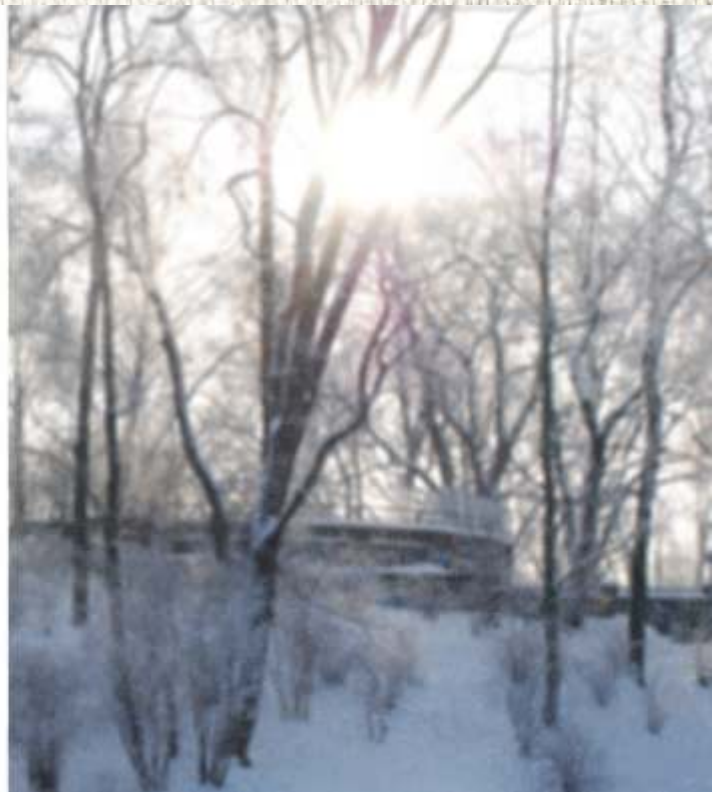
- Possible causes of LUTDs include
- Urinary stones
- Bacterial and viral infections
- Birth defects
- Trauma
- Tumours
- Neuromuscular diseases.

In more than 50 per cent of cats, it may not be possible to determine the underlying cause(s). This is known as Idiopathic Cystitis.

To determine the underlying cause of LUTDS, the veterinarian examines your cat, takes a medical history, and also performs urinalyses on urine samples that have not been altered by previous treatment.

X-ray and ultrasound studies may be needed to locate the exact site(s) of the problem and to identify the causes of persistent or frequently recurring signs. Identifying the site and cause of urethral obstruction is especially important if some form of urethral surgery is being considered.





“Untreated cats usually die within 3 days after the onset of obstruction”

Although a variety of disorders can cause obstruction of the urethra (especially in male cats), no matter what the cause, complete obstruction results in dysfunction of both kidneys that, if not quickly corrected, ultimately causes death. Untreated cats usually die within 3 days after the onset of obstruction.

**Why is complete obstruction of the urethra life threatening?**

Death results from retention of wastes, especially potassium and metabolic acids, in the bloodstream. However, the retention can be reversed by eliminating

the obstruction and by correcting the abnormalities in blood.

**How should LUTDs be managed?**

Specific treatment of LUTDs should be directed at the underlying causes, only some of which are currently known. Of course, detecting known causes calls for appropriate evaluation and diagnosis. In the case of a cat with urethral obstruction, the treatment depends on the cause, site, degree, and duration of the obstruction.

## What is the treatment?

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### **Bacterial**

To treat a bacterial infection, a veterinarian should prescribe appropriate antibiotics and eliminate or control problems in the normal body defence system.

### **Urinary stones**

For cases of urinary stones, either medical dissolution protocols or surgical procedures may be considered.

### **Difficult urination or bloody urine**

Treatment of difficult urination and bloody urine not associated with identifiable causes remains a puzzle. Fortunately, the signs of many cats with this form of LUTD usually subside on their own.

Unfortunately, the signs are unpredictably recurrent. Because specific therapy is unavailable, veterinarians often recommend therapy to treat the symptoms.

When evaluating the success of various treatments, we must be careful. Many disorders in humans and animals are self-limiting, meaning that our bodies' defence systems eliminate the diseases. In these cases, a treatment may seem beneficial as long as it is not harmful.

A similar situation occurs in some cats with LUTDS. However, your veterinarian may recommend changes in;

- Diet
- Litter boxes
- Water availability
- Environment
- Medications

Close communication between you and your veterinarian regarding the benefit or lack of benefit of any treatment trial will be valuable after you closely observe your cat. Remember, there is no "cure."

**Also remember that the inability of a cat to urinate is a medical emergency that requires immediate veterinary attention.**





## Key points

1. If your cat is unable to empty its bladder fully, this is a medical emergency and needs treatment immediately.
2. Recurrence of all forms of FLUTD can occur, especially if specific causes are not found and treated. Symptomatic care often reduces recurrence rates.
3. Feeding a diet like Royal Canin Urinary can help prevent a recurrence of lower urinary tract disease.

## ROYAL CANIN

### URINARY S/O DRY FOOD

Dissolves struvite crystals and helps to prevent the formation of struvite and calcium oxalate crystals.

#### Key Benefits

- Increases acidity in urine to dissolve struvites.
- Dilutes the urine to promote increased urination.
- Creates an environment unfavourable to struvite and calcium oxalate crystal formation.
- Low in Magnesium (a component of struvite crystals)

