



VETERINARY HOSPITAL & HOTEL

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## Feline Lower Urinary Tract Disease

There are many lower urinary tract diseases that cats can experience (bladder, urethra, vulva/vagina, penis). For the most part, all of these conditions can cause similar symptoms when your cat urinates. All of them are potentially serious, so any abnormal urination behaviors or locations warrant a visit to the veterinarian.

### Medical Conditions

Cats can experience a variety of medical concerns regarding their lower urinary tract. The most commonly diagnosed problems include cystitis, bladder infection, crystalluria, bladder stones, and the inability to urinate due to an obstruction (which is usually secondary to one of the above conditions).

### Clinical Signs

Many, but not all, cats with lower urinary tract disease will urinate in places other than the litter box. They should not be punished for doing so. In these situations, inappropriate urination is a reflection of the cat's discomfort and is not a behavior disorder.

Many cats will also experience one or more of the following symptoms: frequent urination attempts, smaller than normal volume, squatting for longer periods of time, visiting the catbox frequently, vocalizing when attempting to urinate, increased licking around the genitals, and sometimes, visible blood in the urine.

It is important to continually pay attention to your cat's urination routines/habits, whether it is inside a catbox or another location.

### Causes/Transmission

Each of the above medical conditions have different causes, and some cats experience more than one problem at a time.

**Interstitial cystitis** is a sterile inflammation of the bladder wall. Although blood is usually present in the urine, there is no infectious cause. Stress or the feeding of an all dry diet is thought to contribute to the occurrence of this problem. No one knows the cause and it may be multi-factorial. This condition can come and go in some cats.

**Bladder infections** are the least common of the medical conditions, and are usually a result of external bacteria making their way up the urinary tract to the bladder. The bladder (and kidneys) can also become infected from bacteria that has entered the blood stream (usually from dental disease).

**Crystalluria** is the presence of microscopic crystals in the urine. These crystals can be made up of different types of minerals, all of which are irritating to the bladder wall. The pH of the urine and the concentration of the urine are factors which can contribute to the formation of crystals.

**Bladder stones** can be an underlying cause of chronic urinary problems. Like crystals, they can be made up of different mineral types. They are much larger than crystals and usually need to be surgically removed.

### Diagnosis

Diagnosis of lower urinary tract disease is relatively straightforward based on history, clinical signs, evaluation of a urine sample, and sometimes bladder x-rays.

### Therapy

Each cat with an abnormality is treated according to the specific changes in the urine (pH, crystals, blood, etc.), and the clinical symptoms (inappropriate urination, pain when urinating, urination more frequently, etc.).

Male cats can present a unique problem because of the small size of the opening in the penis. Any one of the above conditions can quickly become **life threatening**. This can happen if the abnormality in the urine (crystals, blood, cells, bacteria, protein, etc) accumulates and forms a plug at the tip of the penis. If this happens, your cat will not be able to pass any urine. This becomes very painful and can become life-threatening in 12-36 hours. Immediate veterinary attention can save their life so never postpone a visit if you are unsure if your male cat can pass urine. Because the urinary opening in females is so much larger, they usually do not form these obstructions.

**Prognosis**

Most of the conditions listed above are treatable or at least manageable. A male cat that has a urinary obstruction may have other serious complications depending on how long he was unable to urinate prior to the obstruction being removed. These complications can include damage to the bladder itself and the kidneys.

**Prevention**

Because the actual cause of some of these conditions are not known and seem to involve several factors, permanently preventing these problems is virtually impossible. Once a specific problem has been diagnosed, your veterinarian can make recommendations that should diminish the likelihood of reoccurrence.

Be aware that urinary diets sold in grocery stores are designed for preventing a very specific type of microscopic crystal. They are not very good at dissolving the crystals that your cat may already have. They can also make your cat prone to a different type of crystal if they are fed when unnecessary. These diets are not recommended for cats with kidney disease.

If your cat has been diagnosed with either crystals or bladder stones, it is very important that you keep your cat on the specific prescription diet that was recommended. Prescription diets are not available in grocery or pet stores.

These grocery store diets are not meant to help prevent bladder infections. They are also not good to feed to older cats, especially those cats who may have or be prone to kidney problems.