

Mountain View Animal Hospital
129 Main Street, Essex Junction, Vermont 05452
Phone/Fax 802- 879-6311

FELINE UROLOGICAL SYNDROME

FUS is the clinical condition that occurs as a result of cystitis (inflammation of the bladder) and/or urethritis (inflammation of the urethra). It is characterized by the frequent passing of bloody urine, or partial to complete obstruction of the urinary tract.

SIGNS OF FELINE UROLOGIC SYNDROME

Because FUS is a very serious disease that can be fatal to a cat if left untreated, you need to be aware if any of its signs occur in your pet.

Most signs of FUS result from irritation of the urinary tract. Be suspicious if your cat shows prolonged squatting and straining when urinating, attempts to urinate more frequently than normal, urinates in unusual locations, has a painful abdomen if touched, or has bloody urine.

FUS can also cause your pet to lose its appetite, act sluggish, or begin vomiting - especially if urine flow is blocked.

IMPORTANT FACTORS

Up to 10% of all cats admitted to veterinary hospitals are affected with FUS. There is no single cause of FUS, but there are a number of important factors that your veterinarian will take into consideration. They are:

Age: Although FUS can occur in any age cat, the disease is most commonly seen in those over one year of age.

Sex: FUS occurs with equal frequency in both males and females. However, since the anatomy of the male increases the danger of obstruction (they have a shorter, more narrow urethra), this disease is often more serious in male cats.

Obesity: FUS occurs with greater frequency in obese cats, due to mechanical interference with voiding of urine.

Diet: Crystals cause FUS, which results in inflammation of the urinary tract. Many additional, interacting factors can contribute to the development of these crystals and result in FUS. Two factors of primary importance are a high concentration of the mineral magnesium in the urine and urine with an alkaline pH.

Magnesium: The increased concentration of magnesium in the urine is caused by many factors: high levels of magnesium in the diet, infrequent urination caused by a dirty or not easily reached litter box, reduced physical activity, and reduced water intake caused by unavailable or poor quality water.

Urine pH: The increased urine alkalinity contribution to FUS is affected by the size and frequency of meals and the type of food eaten, and by secondary bacterial infections.

Bacterial Infection: Less than 1% actually have a bacterial infection.

DIAGNOSIS OF FELINE UROLOGIC SYNDROME

If your cat is suspected of having FUS, most or all of these diagnostic tests may be performed: *abdominal palpation*, to feel stones present in the urinary bladder; *urinalysis*, to determine the types of crystals present; *urine culture*, with antibiotic sensitivity to determine if bacteria are present in the urinary tract and to choose the appropriate antibiotic for treatment of these bacteria; and *radiographic examination*, (possibly with contrast media), to see stones present in the urinary tract.

To evaluate how well your pet is responding to therapy, some of these lab tests will need to be repeated periodically. Therefore, you will need to bring your pet in for rechecks as directed.

TREATMENT/MANAGEMENT

If your cat's urinary tract is blocked, the urinary bladder will need to immediately be emptied. Then, your cat will be given a detailed examination to determine the appropriate therapy. Immediate treatment may include fluid therapy to relieve dehydration and rebalance the blood electrolytes, removal of any mineral crystals obstructing urine flow, insertion of a urinary catheter, and hospitalization until your cat can urinate normally.

Special diets help by reducing the minerals in the urine that form the stones or sludge which blocks up their urinary tract. These diets also affect the urine pH and increase urination to help flush the urinary tract.

If your cat has Struvite bladder stones, we can sometimes dissolve them by feeding a special diet that is low in magnesium and aids in maintaining normal acid urine. In cats fed this special diet exclusively, signs associated with FUS will normally cease within the first 5-7 days. To completely dissolve the Struvite crystals or stones, the diet is usually fed 2-3 months.

FEEDING DIRECTIONS

Gradually introduce any new diet over an extended period. Mix the new diet with your pet's former food, increasing its proportions until only the new diet is fed.

If your pet is one the few that doesn't readily accept a new diet in two days, try warming the canned diet or hand feeding the new diet for the first few days.

Feed only the prescribed diet. Do not feed fish, shellfish, cheese, vitamin-mineral supplements, or foods containing bone or table scraps as this will upset the magnesium and urine pH balance of the diet causing it not to work properly.

Be patient, but firm with your pet. This is important because success or failure of the treatment and its benefit to your pet depends to a large degree on strict adherence to the new diet.

For those crystals or stones that consist of non-struvite components, surgery may be necessary.

If your cat is not on a prescription diet, the latest recommendation is to feed a canned cat food to try and increase their moisture intake. **Studies show that 40% of cases have a reoccurrence on dry food, whereas only 10% reoccur on canned food.** If your cat prefers dry food, try adding water to the dry food.

Encourage increased water consumption. Place water by their food dish. Make sure to refresh it at least once daily. Some cats prefer cold or running water (from a faucet or from a cat water fountain found at pet stores) and others even prefer distilled water.

HOME MANAGEMENT

Once home, your pet will need attention and care. It is very important that you provide free access to fresh, clean water. You should also provide a clean litter box for each cat in your household (and preferably you will have one more litterbox than you have cats...ie, if you have 2 cats you will have 3 litter boxes).

Follow instructions carefully if your cat has a prescribed medication.

During and immediately following the dissolution process, you will be asked to bring in a urine sample for follow-up urinalysis.

Encourage your cat to exercise. You may want to plan daily play sessions with your cat to provide exercise on a regular schedule. Enrich their environment such as adding a climbing apparatus, having them chase a laser beam or add a toy which mimics hunting behavior. You should also control the amount of food your cat eats on a daily basis to help avoid obesity. Ask us to calculate out a diet for your cat based on the type of food you feed.

Remember, give no other food or vitamin mineral supplements while your pet is receiving the special crystal dissolving diet. Call if you have any questions or problems arise. Watch your cat for bloody urine, straining, urinating in unusual places, excessive licking of the vaginal or penile areas, vomiting, diarrhea, lack of appetite, or depression. If any of these signs occur please contact us.

<p>SPECIAL HOME CARE INSTRUCTIONS FOR YOUR PET:</p> <hr/> <hr/> <hr/> <hr/> <hr/>
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