

## **Feline Urological Syndrome (FUS)**

Feline Urological Syndrome (FUS) is also known as feline lower urinary tract disease. It is the most common disorder affecting the lower urinary tract in cats. It is a major health concern among pet owners even though it usually only occurs in about 1% of cats, primarily because once a cat has been diagnosed with FUS, there is a 50% to 70% chance of recurrence, despite proper treatments. FUS can occur in cats of all ages, but primarily is seen in cats over one year of age. It can occur in both males and females, but due to the anatomy of the male, the disease is more symptomatic and there is increased likelihood of bladder obstruction.

The main symptoms of FUS are prolonged squatting and straining while trying to urinate. Cats may frequently pass bloody urine and may urinate in unusual locations. They may also excessively lick the penile or vulval areas and cry while trying to urinate. Major obstructions can occur during the first episode or during subsequent episodes. With a blockage, the stomach area may become distended and painful. As pressure increases in the upper urinary tract, the kidney's will stop producing urine, thus causing a build up of toxic waste in the blood, leading to uremia. The cat will appear sluggish, become anorectic and may vomit. If no treatment is rendered, irreversible kidney damage occurs, which will lead to death. FUS is a very serious disease and should be considered an emergency. Veterinary treatment and hospitalization is crucial.

Causes of FUS include: 1) The plugging of the urethra by a gritty material composed primarily of struvite crystals (magnesium-ammonium-phosphate). Struvite crystals are caused by too much magnesium in the urine and a urine with an alkaline pH. Diets with too much magnesium, reduced physical activity, reduced water intake, and infrequent urination caused by a dirty litter box are factors influencing struvite formation. 2) Bacterial infections are usually not the cause of FUS initially, but may be a very important factor in recurrence.

Treatment: A cat with FUS needs immediate attention. Again veterinary attention and hospitalization are required. Upon examination of the cat, the veterinarian will suggest an appropriate treatment protocol, which they will go discuss with you. Treatment must begin as soon as possible, thus any recommended treatments and procedures are highly encouraged and should be given the go ahead. This may include anesthesia, the placement of a urinary catheter to relieve obstruction, an IV for intravenous fluids, antibiotics and hospitalization.

Following hospital treatment and discharge, the cat should be placed on a special prescription diet. This diet is low in magnesium and aids in maintaining normal acid urine. It also helps prevent the formation of and dissolve any remaining struvite crystals or stones. It is important that this diet be fed exclusively. Symptoms and signs associated with FUS will usually disappear within 7 days. To prevent recurrence the diet should be fed exclusively for up to 2 months. During this time your vet may also ask for occasional urine samples for testing. After about 2 months, a re-examination of your cat, by your veterinarian is recommended. Any dietary changes will be made by your vet at that time.