BLADDER STONES

Uroliths (stones) more commonly form in the bladder of dogs and cats rather than in the kidney as is the case in humans. The stones vary in composition of various minerals and vary in size from grains of sand to large rocks.

SIGNS OF BLADDER STONES include bloody urine (hematuria) and straining to urinate (dysuria). Bloody urine results from irritation of the bladder wall by the stones. If the stones obstruct the opening of the bladder to the outside (urethra), then the pet often strains to void urine. If small enough, the stones may actually pass into the urethra and cause a complete obstruction.

A COMPLETE OBSTRUCTION IS VERY PAINFUL TO THE PET AND IS AN EMERGENCY CONDITION. If the pet is not catheterized to remove the urine, the bladder will eventually be filled to the point of exploding.

Stone formation varies with the stone's composition. The main theory is that the urine contains elevated levels of minerals, possibly from the particular diet it consumes, and this mineral begins to collect into a stone. As time passes, the stones get larger and increase in number. Bacteria causing infections may also create stones. Stones usually form over a period of months, but have been documented to form in as little as two weeks.

DIAGNOSIS is confirmed by palpating the stones on physical examination or x-rays. Some stones are radiolucent and require a dye be put in the bladder to expose the stones.

TREATMENT of bladder stones usually requires surgery to remove the stones. Special diets are available that can be useful in dissolving certain mineral types of stones. Unless small stones can be collected in the urine for examination, it is not possible to be 100% sure if the type stone present can be dissolved with a special diet. Special diets also have the disadvantage of dissolving stones very slowly, taking weeks to months.

PREVENTION OF STONE RECURRENCE depends on analysis of the stone's mineral content so that specific diet recommendations can be made to prevent that particular type of stone. If the stones are a result of a bacterial infection, long-term antibiotics along with periodic urinalyses and urine cultures may be required.