

Bladder Stones in Dogs

What is Urolithiasis?

Urolithiasis is a urinary tract disease in which crystals or stones form within the urinary tract and cause irritation, pain and possibly blockage.

What are urinary bladder stones?

Urinary bladder stones (also known as uroliths) are collections of mineral crystals that combine together to form a stone in the urinary bladder. Less often, stones may form in the kidneys. The pH of your dog's urine affects the development of the crystals that lead to urinary bladder stones. The most common type of stone/crystal is struvite, and these tend to form in alkaline urine. Other types develop in more acidic urine.

What causes urinary bladder stones?

Though there is no single cause of urolithiasis, or urinary tract disease, veterinarians recognize there are components that may contribute to the prevalence of the disease. Factors, that increase your dog's likelihood of developing a problem include:

Gender: Both males and females get the disease with equal frequency, but males have a greater risk of life-threatening urethral obstruction from the crystals or stones

Infection: Bacterial infection of the bladder, causing alkaline urine, is the main cause of struvite crystal formation.

Food: High levels of certain minerals in dog food can increase the chance of crystal formation in urine. Magnesium and phosphate are mineral components of the most common crystal type struvite. Don't feed a dog food with excessive amounts of these minerals. The dog food your dog eats also influences urine acidity (pH). This may encourage certain stones to form.

Low water intake: Not taking in enough water leads to more concentrated urine, which may increase the likelihood of stones forming.

Breed Predisposition: Small breed dogs are more susceptible than large breed dogs. Also, certain dog breeds, such as miniature schnauzers, Dalmatians, Yorkshire terriers and bulldogs, are more prone to develop urinary bladder stones.

Other contributing factors can be lack of exercise, inability to urinate frequently (typical in a confined indoor dog), or reduced water intake.

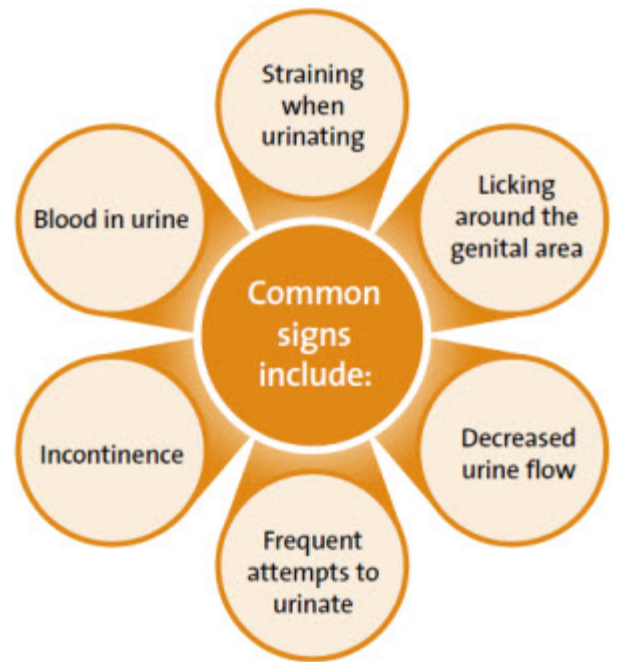


Does my dog have a urinary problem or bladder stones?

If your dog has urinary problems, he may be very uncomfortable. It's important to contact your veterinarian immediately for a complete examination if you notice any of the following common signs below.

- Straining when urinating
- Blood in urine
- Licking the genital area
- Incontinence or an inability to control urination
- Decreased urine flow
- Frequent attempts to urinate
- Reduced appetite
- Lack of energy or interest in normal activities

IMPORTANT: If your dog is not urinating freely, a urinary blockage may be the cause. Consult your veterinarian immediately as this condition could be life threatening.



Treatment:

- Identify if there is an infection and treat it – this will require a sterile urine sample to be collected most likely, a urine culture to be performed
- Dissolve it – we don't know what kind of stone is inside until we get it out. Some types can be dissolved with a food change and some can't. Your vet may try to dissolve it with food before going for surgery.
- Surgery – removal of the stone via a cystotomy will provide relief for your pet, and it allows us to send the stone out to the lab so we know what it's made of. If we know what it's made of, there is a chance we can prevent it from recurring.
- Lithotripsy – is a method of breaking up the stone to tiny pieces to allow your pet to pass the small stones out without surgery. This is not always possible depending on the stone size, and very few hospitals can afford the expensive technology that is required to do it.

Recurrence:

We will advise you on the best course to prevent recurrence. This may include frequent urine checks, urine cultures to monitor, a change in food, increased water intake, or all of the above. And remember, any dog that has been treated for urinary tract disease runs the risk of contracting

it again. Therefore, it's important to continue with the nutritional management of the disease and watch closely for the recurring symptoms.