Bladder and Urinary Health – Struvite Stones

The Raw Solution

Struvite stones are bladder stones that can occur in both dogs and cats. They are the most common type of stone, and are also referred to as triple phosphate or magnesium ammonium phosphate stones. Magnesium, ammonia, and phosphate are common elements in urine, and in concentrated urine. In concentrated urine these elements bind together to form crystals that can irritate and inflame the bladder. Struvite stones that are very large can also lead to a blockage that may require surgery to remove. 85% of dogs suffering from struvite stones are female.

When Urine is too Concentrated

Creating dilute urine is critical to avoiding reoccurring stones and crystals. To dilute the urine, the best recommendations are to feed a moist diet or to increase water consumption. Dogs or cats fed a commercial dry food diet typically do NOT consume sufficient fluids. The recommended fluid intake for dogs on a dry food diet is 1 oz of water for every 1 lb of body weight – meaning a 50 lb dog should be drinking 50 oz (nearly 1.5 L) of water per day! Switching to raw provides much needed moisture, as Big Country Raw food is 60% – 70% moisture. The ancestral canine diet contains approximately 80% moisture.

When Urine is too Alkaline

Dry food diets consisting of carbohydrates, especially grains and potatoes, can contribute to high alkaline urine. Dogs and cats are designed to eat a meat-based protein diet that causes more acidic urine. A perfect urine pH of 6 – 6.5 can be achieved when feeding a meat-based, protein rich diet. Additionally, urine at a perfect pH of 6 – 6.5 is also sterile. However, alkaline urine is a more hospitable environment for infection to occur. Additionally, when urine pH is alkaline, minerals settle out of the urine and form crystals. These two factors contribute to the formation of struvite stones.
Why NOT Veterinarian Prescribed Diets or Low Protein Kibble?

Dry food diets marketed as treatment for struvite crystals or stones are phosphate and magnesium restricted, and supplemented with salt to increase thirst and fluid consumption. Veterinarian prescribed dry food diets rely on very low quality meat by-products with extremely low protein levels (Hills Prescription U/D is 8% and Royal Canin Urinary SO is only 12% protein). Many prescription diets also include chemical preservatives, high purine yeast, and potential allergen causing fillers such as corn and soy fiber. Long-term feeding of these diets will eventually result in further health complications.

Big Country Raw Dietary Recommendations

The best proteins for dogs that are predisposed to struvite stones or crystals are poultry or white meat. Also avoid large amounts of organ meats and red meat proteins. Game meats (e.g. kangaroo, elk, venison, and bison) are also not recommended.

Best choices include:
- Turkey Salmon
- Lamb
- Turkey Dinner
- Breeder Blend
- Chicken Dinner
- Duck Dinner
- Pure Rabbit
- Country Blend

Big Country Raw Dinners also contain cranberries, which do not cure existing infections, however they do prevent bacteria from adhering to the tissue that lines the bladder and urinary tract. Adding cranberries to your dog’s diet is very beneficial for dogs with urinary tract health concerns.

Supplementing the diet with Big Country Raw Fruit and Vegetable Blend or Super Food Blend is a great way to add additional fruits and vegetables to your pet’s diet. These additions can be helpful in replacing trace minerals that are not found in red meat or organ meats.
**Monitoring Your Pet’s Urinary Tract Health**

Periodically monitoring your pet’s urine pH is your best way to determine your pet’s urinary and bladder health. Pool pH strips can be purchased at your local pool supply or hardware store, and are an easy and economical way to monitor your pet’s urine pH levels. When switching diets, it is recommended that you regularly check your dog’s urine pH, ensuring it is between 6 – 6.5. When urine pH is correct, the formation of stones and crystals is significantly reduced or eliminated.

Increasing water consumption and regularly emptying the bladder is also helpful for pets that have previously been diagnosed with struvite stones. We recommend adding yogurt, kefir, goats milk, bone broth or even water to your pet’s food to increase the amount of moisture intake. Allowing your pet to access the outdoors to empty their bladder regularly will also ensure better bladder health.