

Bladder Health and the Dalmatian Dog

What to know about Purines, Urinary Crystals and Stones

Humans, some primates, birds, reptiles and some dog breeds, including the Dalmatian are unique in the way they metabolize uric acid. Uric acid is made by the body to rid itself of extra purines. Purines are a building block in the structure of DNA used to produce energy in the cell and they are present in all food sources. Some foods are low in purines and others are high. When some humans eat purine rich foods they may develop gout or kidney stones. When some Dalmatians eat purine rich foods, a buildup of urate crystals can occur in the bladder. These crystals can clump together to form stones.

Tissues that are more metabolically active are higher in purines. Do not feed a diet that contains organ meat (liver, heart, kidney, spleen, lung etc.), certain fish (anchovies, herring, mackerel, sardine, sprat and tuna to name a few), brewer's yeast or other foods/ingredients rich in purines. Purines are generally higher in animal tissues than in plants with the exception of dairy products (cheeses, yogurt, milk etc.) and eggs which are low in purines. Legumes (beans, lentils, peas) are higher in purines than are grains and other plants typically used in dog food. For this reason, avoid "grain free" diets that use legumes instead of grains.

Most Dalmatians do well on a good quality poultry or lamb-based kibble that is free of organ meat and brewer's yeast. Low purine therapeutic diets¹ are available from a veterinarian and low purine home cooked diets are an option too. If you are considering a home cooked diet, consult with a veterinary nutritionist to ensure the diet contains all the needed essential nutrients. Treats should be low purine as well; pieces of cheese or egg work well, for pocket friendly- use commercially available cheese or peanut butter treats. Substitute vegetarian biscuits for meat-based ones.

¹ A therapeutic diet is a diet prescribed by a veterinarian. The term "Prescription Diet" is trademarked by the Hill's company.

Give your Dalmatian plenty of water and regular exercise

Stone formation occurs in concentrated, stagnant urine. Encourage plenty of water intake to keep the urine dilute and offer frequent opportunities to urinate (ideally every 4-5 hours during the day) to keep the bladder empty. Regular exercise can help to encourage water intake. Meals should always be served with plenty of water in it and water should be available at all times. Nearly colorless urine is a good indication your Dalmatian is getting enough water. A Urinalysis (from a urine sample brought to your veterinarian) can provide a complete assessment.

Early detection is the best way to prevent a serious medical condition

Many Dalmatians who form crystals/small stones live out their lives uneventfully without any symptoms or signs of a problem. Often the small stones that may be present in the bladder are passed when the dog urinates. If the crystals or small stones are not flushed out, larger stones may form increasing the chance of a urinary blockage. Routine observation when your dog urinates is the best way to detect a problem.

Know the symptoms associated with a possible impending blockage

- A weak urine stream or difficulty urinating
- A change in urinating habits like increased frequency, an increase in the sense of urgency, urinating in uncommon locations etc.
- Urine that appears blood tinged especially when the bladder is almost empty.
- Urine that appears cloudy, gravelly or sandy
- Straining to urinate or the inability to urinate. **If your Dalmatian is unable to urinate, seek immediate medical attention.**