

## FACT SHEET

### Bladder Problems

*The bladder is a pear shaped organ, which is situated in the abdominal cavity below the kidneys. Its function is for storage of urine and the shape and position of the organ varies because of its elasticity and the amount of urine stored.*

#### Bladder problems

Dogs and cats can both suffer from problems related to the bladder. Inflammation of the bladder lining or the formation of urinary mineral deposits and stones, have become common problems.

#### Signs and symptoms

The symptoms seen vary according to the severity of the condition, however, cystitis (frequent urination with occasional appearance of blood), incontinence or difficulty passing urine is often seen. In severe cases there is extreme discomfort and straining.

#### Bladder stones

Factors that contribute to the development of stones in the urine are not totally understood, some breeds may be more prone to the condition than others suggesting an inherited link. There are some suggestions that poor quality food and the feeding of diets containing excessive amounts of phosphate and magnesium might also be the cause. A bacterial infection is often present, though whether this is due to stones or visa versa is difficult to tell. The stones can be made up of a variety of different substances:

Struvite stones are the most common type of stone, which can be a combination of phosphate, magnesium and ammonium. They vary in size and structure, being rough or smooth. They are found particularly in bitches and are associated with alkaline urine.

Cystine stones are usually very small, round and smooth, with a yellowish colour, and cause obstructions in the urethra. They are often found in acid urine.

Urate stones are often seen in Dalmatians as they can suffer from a metabolic disorder associated with the consumption of specific proteins (purines) and have a high excretion of urates and therefore have a greater tendency to develop these stones. Urate stones can be small or large, usually smooth and pale green or brown in colour.

Oxalate stones are the least common stone and can be distinguished by their considerable hardness and crystalline structure. They are often found in acid urine.

#### Diagnosis

If symptoms are observed and you suspect bladder stones you should contact your veterinary surgeon who will diagnose the type of stones present through a number of tests. A urine sample will need to be taken to establish which type of stone is present and give the PH (acidity/alkalinity) of the urine. In some cases X-rays can be taken in which large stones will show up.

#### Treatment

In extreme cases the stones will need to be surgically removed from the bladder to enable the dog to pass urine with ease, without the fear of blockage. However, in the case of struvite stones this may not be necessary. By feeding a specially formulated diet which is low in protein, magnesium and phosphorous it is actually possible to dissolve the stones, provided they are not too advanced or causing any serious blockage.

#### Prevention

Little is known about the cause of bladder stones, however it is thought possible for there to be an inherited link due to certain breeds being more prone than others. There may be little that can be done about this, thus it is recommended not to breed from a dog which has developed stones, therefore reducing the chance of an inherited link causing a puppy to develop the problem in later life.

#### How can Naturediet help?

Diet is extremely important, not only can a special diet help to dissolve certain stones, but a healthy natural balanced diet is thought to prevent them occurring in the first place. This is because a natural diet containing high quality protein is easily assimilated and leaves little waste residue. This diet should also be free from chemical additives and excess salts, which predispose to crystal formation. We recommend Naturediet Senior/Lite for dogs with bladder problems, particularly because it has a natural low salt content or Naturediet Sensitive, specifically formulated for dogs with sensitivity problems.

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