

TROVET Anti Struvite, dietary supplement for the targeted tackling of struvite in dogs and cats



*My dog or cat gets diet food  
and has struvite ... what do I do now?*



Veterinary exclusive



*reliable and affordable dietary pet food*



**Veterinary exclusive**



Bladder problems in the form of struvite grit or stones are common in dogs and cats. A thorough treatment is required in that case. Nutrition usually plays an important role in the treatment. In some cases it is not possible to treat the condition with dietary food. A dietary supplement can then offer a solution.

This brochure gives you insight into the causes and treatment of struvite and the contribution that TROVET Anti Struvite | UAS can provide

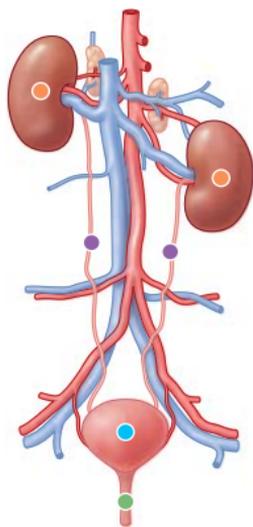
## ***What do you need to know?***

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The urinary tract is responsible for the production and disposal of urine. If something goes wrong in this process, bladder problems can occur. Bladder problems can have various causes. An important cause of bladder and kidney problems in dogs and cats is the formation of crystals and/or stones.

## What are bladder and kidney stones?

Bladder and kidney stones can be formed in the urine of dogs and cats when the urine is very concentrated. This means that the urine contains a relatively large amount of 'particles'. The urine will be dark (yellow) in colour. If too many of these particles are present in the urine, these particles can clump together and form crystals. These crystals can then grow into bladder and kidney stones.



● Kidneys

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● Ureters

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● Bladder

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● Urethra

## Symptoms of bladder and kidney stones

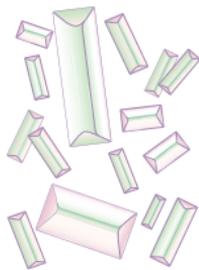
Bladder stones usually result in various symptoms. The kinds of symptoms depend on the underlying cause, the size and location of the formed stones. For example, stones with a sharp surface are able to damage the bladder wall. When the formed stones get stuck in the urethra, this blockage can cause life-threatening symptoms. It is therefore important to be able to recognise when your dog or cat has problems with the urinary tract.

*The most common symptoms with bladder stones:*

- > Blood in the urine
- > Often urinating small amounts
- > Pain when urinating
- > Applying pressure when urinating
- > Incontinence (loss of urine)
- > Abnormal colour and/or smell of the urine
- > Behavioural changes such as restlessness, lethargy, hiding or refusing food. Also changes in urination behaviour, such as urinating in the house or in places other than normal.

## What is struvite?

The most common bladder and kidney stone in both dogs and cats is struvite. Struvite is formed from particles of magnesium, ammonium and phosphate. In severe cases, these stones can clog the urethra, preventing your pet from urinating. This life-threatening situation can be observed in cats on a regular basis.



*Struvite crystals*

### *The formation of struvite*

Struvite can only occur under specific circumstances. The mineral concentration and the acidity of the urine are the most important factors in the formation of struvite stones.

Dogs and cats naturally secrete acidic urine, which is relatively rich in components, which make up struvite. However, struvite crystals do not form in acidic urine and these dogs or cats will therefore not develop struvite stones. When the pH value of the urine is higher, this will initiate the formation of struvite crystals.

It might also be possible that your pet does not drink enough. With low water intake, the kidneys produce urine with a relatively large amount of minerals and waste substances in a small amount of moisture.



Compare your pet's urine with a cup of tea. One lump of sugar dissolves easily.



Three lumps of sugar dissolve with difficulty, after vigorously stirring.



Five lumps of sugar no longer dissolve in the tea. In urine, magnesium, ammonium and phosphate clump together to form struvite crystals that can precipitate at a high concentration.



## *Factors that can play a role in the formation of struvite*

### Water intake

A dog or cat that absorbs too little water produces more concentrated urine. This increases the chance of bladder and kidney stones forming.

Because bladder problems are partly caused by a lack of moisture intake, offering wet food can make an important contribution to the prevention of these problems. Perhaps the food your dog or cat receives is also available in wet food. Replacing part or the complete daily amount of kibbles with wet food, can contribute to the prevention of struvite.

### Urine pH

Crystals can occur, among other things, when the urine pH is 'favourable' for crystal formation. A low urine pH is unfavourable for the formation of struvite, so the goal is to achieve acidic urine.

### Urinary tract infection

The pH of the urine can be increased by bacterial infections, which increases the chance of formation of struvite crystals and/or stones. Bacterial infections are the main cause of struvite in dogs. In cats, struvite is rarely caused by a bacterial infection.

### Age, breed and gender

In cats, struvite problems occur more often at a younger age. Castrated males seem to be the most sensitive to struvite stones. The factors that influence stone formation, as well as the treatment, vary greatly per animal.

For a quick cure, it is advisable to follow the advice of your veterinarian.

In dogs, struvite is more common in small breeds, such as the miniature schnauzer, miniature poodle and shih tzu.



*miniature schnauzer*



*miniature poodle*



*shih tzu*

## ***Treatment and the role of a dietary supplement***

Depending on the situation, various treatment methods are possible:

- > In the case of a urinary tract infection, antibacterial medication can be used.
- > Large stones are often removed through surgery.
- > Although dietary food makes an important contribution to reducing and or solving the problems, in some cases it is not possible to change food dietary supplement can then offer the solution.

### *Mixing dietary foods*

The treatment of a dog or cat with multiple disorders can be complex. Although it sometimes seems an obvious solution to combine two different diets, this is strongly discouraged. Although diet A is formulated to treat condition A, it is not formulated to provide support for condition B and vice versa.

## **TROVET Anti Struvite | UAS**

Anti Struvite is a dietary supplement for adult dogs and cats to prevent and treat struvite gravel and struvite stones. Anti Struvite reduces the urinary pH, creating a less favourable environment for the formation of struvite.

The dietary supplement is hypoallergenic and suitable to be combined with a hypoallergenic diet, in the case of food hypersensitivity.

### *Because tastes differ:*

Crushing the tablet and mixing with it with wet food or soaked kibbles does not go at the expense of the functional properties of the product.

Anti Struvite supplement is available in a blister packaging, containing thirty palatable, scored tablets for easy dosing. In addition to the blister pack, Anti Struvite is also available in a resealable jar, containing one hundred tablets.



**Note:**

To minimise urinary pH fluctuations, it is recommended to divide the daily dosage over two or three portions.

TROVET Anti Struvite | UAS is a dietary supplement that, after consultation with a veterinarian, can be used for life. Anti Struvite is exclusively available via your veterinarian. For more detailed product information see: [www.trovvet.com](http://www.trovvet.com)

*reliable and affordable dietary pet food*



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