



# Blocked Bladder - Cats

## Reasons for obstruction:

Although the reasons for obstruction in each individual cat will vary there are some common problems which may need addressing across all affected cats. There are two main reasons for the inability to pass urine, although there will often be overlap between the two.

1. Physical obstruction – this can be bladder stones but is often a plug of protein/mucus with or without mineral crystals within it
2. Muscle spasm – this can occur independently or in addition to physical obstruction and prevents passage of urine through part of the urethra

With the exception of bladder stones which can form due to factors in the diet, most obstruction happens as a consequence of Feline Idiopathic Cystitis (FIC).

FIC is a complex condition which is not fully understood but has a very significant stress component. Affected cats are frequently nervous or anxious in nature and, due to abnormalities in the way the body responds to stress, get inflammation in the bladder which can lead to increased urine protein and inappropriate muscle spasm.

## Signs of obstruction:

- Straining to urinate without producing urine
- Pain, especially when trying to urinate or when touching the cat's tummy
- Frequent visits to the litter tray without producing significant amounts of urine
- Some cats will produce a few drips of urine but not a significant quantity



## What happens when the bladder becomes blocked?

Bladder obstruction causes significant pain and rapidly leads to accumulation of waste products such as urea and potassium in the body. Increases in the potassium levels in the blood can lead failure of heart and muscle function.

Intervention to reduce the risk of recurrence is important as repeat obstruction is seen in up to 30% of cats within 30 days of initial treatment, although this figure is lower with intensive treatment. Repeat obstruction is also considered high risk for the duration of the cat's life, although some will never have a second episode.

*A urethral obstruction, or blocked bladder, is an emergency.*

## How do we treat this in the clinic?

The priority with a blocked bladder is to relieve the pressure in the bladder and the obstruction, this has to be done by placing your cat under a general anaesthetic.

Although every patient is different the following steps are generally involved:

- We take a blood sample to assess the extent of potassium build up and compromise of the kidneys; this helps us assess how soon we can safely give an anaesthetic
- If we cannot safely anaesthetise straight away we may empty urine from the bladder by cystocentesis – passing a needle through the body wall
- We will give intravenous fluids to help correct the accumulation of waste products
- Once the patient is stable we give an anaesthetic to allow us to pass a catheter through the urethra and relieve the obstruction; sometimes this is straightforward, other times it can be a long process of gently flushing the urethra
- We may then need to do an ultrasound or x-rays of the bladder to assess for the presence of bladder stones or the presence of sediment in the bladder.

Depending on the individual, we may remove the urinary catheter straight away or we may leave this place for between 24 and 72 hours.

Your cat will need to be hospitalised during this process. While your cat is in the hospital we start medications to relieve pain and to help reduce risk of recurrence.

### Medical treatment

Medication has three primary roles:

1. Relieve pain and inflammation in the bladder
2. Reduce muscle spasm in the urethra maintaining out-flow
3. Reduce stress



Each cat will have a different combination of medications depending on the individual needs however these are some of the more common ones used:

- NSAID e.g. Meloxicam – an anti-inflammatory and pain relief – this can only be used once normal kidney function is established
- Calmex – this is an anti-anxiety supplement which can be very beneficial in reducing stress
- Cystaid plus – this combines a glycosaminoglycan and some anti-anxiety compounds
- Prazosin – a muscle relaxant in the urethra – most cats will have a course of this following unblocking
- Dantrium – this is another muscle relaxant with slightly different action that may be used in addition to Prazosin
- Other medications may be required in individual cases

# What to do to prevent recurrence

## Influence of water intake

Increasing water intake has been shown to have the greatest impact on feline idiopathic cystitis. The most effective way doing this is to feed wet food (tins or pouches).

Other way you can help increase water take are:

- Having multiple bowls of water around the house
- Ceramic bowls instead of plastic or metal as these may taint the water
- Having a bowl outside to catch rainwater and bring this in
- Wide bowls full to the top with water are preferred by most cats
- Water fountains as cats like moving water
- Adding additional water to wet food will be tolerated by many cats
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A product that can help to increase water intake is Pro Plan feline Hydracare. A supplement that will help increase the intake of liquid, reduce your cats specific gravity and is very palatable

## Influence of diet change

In addition to increasing water intake there are special urinary diets, these diets;

- Control minerals to reduce formation of urinary crystals
- Increases water intake
- Some have stress-relieving components

The Veterinary diets we recommend are:

- Royal Canin Urinary S/O – also available in moderate calorie for overweight cat
- Hills C/d multicare and C/d multicare stress – the 'stress' version is ideal for anxious cats
- Royal Canin Calm – this is a great option for cats where stress is the primary issue and mineral crystals are not involved.



Weight loss can also be beneficial as the majority of cats which get blocked bladders are overweight.

## Reducing stress

As stress is a major factor in FIC stress reduction is one of the most important long term interventions.

In some cats a specific source of stress can be identified, the most common include:

- Stress between cats in the same household
- Stress from other cats outside the property or entering the property
- Changes within the household, e.g. visitors, building work, changes in people living there, moving house, new babies

Often a specific cause of stress cannot be identified or removed. In these cases medical treatment with Calmex and other products, and the use of pheromone products (Feliway) can be beneficial in reducing anxiety levels.

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Proplan Calming care probiotic anxiety supplement – Contains a strain of beneficial bacteria shown to help cats maintain calm behaviour. Helps blunt cortisol a marker of stress. Cats also have specific environmental needs in order to reduce stress developing or to improve their ability to cope with it.

Key tips are:

- Ensure there is at least one more litter tray than the number of cats in the house - place these in different areas of the house
- Avoid litter trays being in busy areas
- Consider trying different types of litter to see which your cat prefers
- Feed cats separately – placing bowls in different areas of the house or having multiple bowls in separate areas, if food is provided ad lib.
- Provide water AWAY from food – cats generally prefer to drink away from where the food is placed
- Provide multiple high up locations – cat trees, shelves etc. Being high up is an important coping strategy for cats when they are feeling anxious
- Provide activity areas – trees, toys, scratching posts, interaction – in order to prevent boredom
- Feeding some of food via toys or activity feeders increases natural hunting and feeding behaviour and can increase activity, reduce boredom and aid in controlling weight
- Outdoor access can be beneficial in some cases to improve interest and stimulation
- Consider using a microchip cat flap as cats may be entering the house without your knowledge through a standard cat flap.
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The 'indoor cat initiative' website (<https://indoorpet.osu.edu/cats>) has some very helpful tips (useful for cats that go outside as well).

For further information please talk to one of our vets.

More information can also be found on the International Cat Care website:

<https://icatcare.org/advice/cat-health/urethral-obstruction-cats>

<https://icatcare.org/advice/cat-health/feline-idiopathic-cystitis-fic>

<https://icatcare.org/advice/making-your-home-cat-friendly>