

## Post-operative care for patients after ectopic ureter surgery

Ureters are the tubes that drain urine constantly from the kidneys into the bladder where it should be stored. It is then intermittently voided to the outside as urination from the bladder via another tube, the urethra. The flow from the neck of the bladder into the urethra is controlled by urethral sphincter muscles that should maintain the outflow pipe “closed” in between urinations. If one or both of the ureters enter the urogenital tract (UGT) in abnormal positions they are called “ectopic” ureters. If they enter “downstream” of the sphincter control, then instead of urine accumulating in the bladder and staying under the control of the sphincter muscles, the urine constantly trickles from the ureter(s) into the UGT and to the outside – this gives urinary incontinence. Other causes of urinary incontinence include urethral sphincter mechanism incompetence (USMI), which is more common in spayed female dogs than in entire ones, and is often responsive to medications including female sex hormone drugs/analogues like estriol (Incurin) and/or adrenergic drugs like phenylpropanolamine (Propalin)

Surgery for ectopic ureters can often be done with endoscopic minimally invasive techniques if CT scans have previously confirmed that the ectopic ureters run along the wall of the bladder neck, but we don’t currently have the equipment to do this. We are very happy to redirect cases for minimally invasive surgery, but it is likely to be significantly more expensive than the traditional surgical approach that we offer. The traditional approach that we use involves an open abdominal approach to allow sectioning of the abnormal ureter(s) and repositioning it/them into the bladder. We will have wanted to see a contrast CT scan in advance of surgery.

Some dogs with ectopic ureters will nevertheless respond to medications for USMI so this is worth trying before surgery. Some dogs after ectopic ureter surgery may still have some urinary incontinence and may have USMI.

**Medication:**

<b>Antibiotics:</b>	Antibiotics like claviseptin are usually given for a few days (usually tablets given twice daily).
<b>Anti-inflammatories:</b>	Non-steroidal anti-inflammatory drugs usually start/resume the morning after surgery. These are tablets (eg carprofen, Onsior or Previcox), or liquid (meloxicam). They should be given with food. If vomiting or diarrhoea is noted, stop this medication and seek prompt advice.
<b>Analgesics:</b>	We are likely dispense tramadol (tablets given twice daily).

**The wound** must not be interfered with or bathed. An Elizabethan collar can help prevent interference with wounds. Any wound ooze may be gently blotted with kitchen towel, but if ooze is seen, advice should be sought.

**Rechecks** a few days after surgery may be with your own vet to save un-necessary travelling. We could do this check-up if travelling is not an issue, and all post-op check-ups are free of charge with us under our “fixed price” schemes. Please contact us to book an appointment for us to see the case back 2-3 weeks post-operatively when we can remove sutures/staples and check that all is going to plan.

**Dressings** may be used post-operatively, typically a thin white Primapore, to give the wound some on-going protection. These should be kept dry at all times. If they do become significantly wet then they can be removed.

**Strict restriction and supervision of activity** is required. Dogs should be on a lead anywhere outside of the house including the garden. Allow just 5 minutes of lead restricted exercise, three times a day, until you are advised to the contrary. Cages which will fold flat when not in use are readily available from pet superstores, Argos, many DIY stores or from on-line retailers. Running / jumping / climbing (into cars, upstairs, onto furniture, onto kitchen work tops etc) should be prevented. Consider using stair gates and ramps, and keep doors and windows shut to avoid escapes!

### Outcomes and potential complications

Around half of cases will be “normal” after surgery. Some dogs will still have some incontinence after surgery and about half of these will then respond to USMI drugs, even if they didn’t do so before surgery. Unfortunately a significant number will remain incontinent however.

The repositioned ureter lacks the normal “valve” between it and the bladder, meaning that it will be a little easier for micro-organisms to ascend up the ureter into the kidney, making urinary tract infection (UTI) more of a potential risk. Good urinary hygiene, a good regular flow of normal looking clear urine is the goal, and dog urine should be slightly acidic. This can easily be checked with pH indicator urinary strips available from chemists. pH6-7 is fine. If the urine is alkaline (pH 8 or more) then this likely indicates infection. If UTI becomes an issue, then periodic antibiotics or urinary acidifying diets, or drugs to improve the hygiene of the urinary tract might be required.

The repositioned ureter is potentially prone to stricture, fibrous narrowing, as it enters the bladder. If this happened, then “backing up” of urine upstream in the kidney and ureter could lead to irreparable damage to both. It might then prove necessary to remove that kidney and ureter. This isn’t a major problem if the other kidney is working fine – even half of one kidney working well can do enough work for normal life – but it is obviously better to have two kidneys than one to give more reserve capacity to future-proof the patient against future kidney disease, that becomes relatively common in geriatrics.

**Our fixed prices include any follow up consults with us, but don’t include further medication or revision surgery.**

**For further details please see [www.wm-referrals.com](http://www.wm-referrals.com), “about us”, “FAQs”.**

**For further advice please contact us by phone on 07944 105501 or at [enquiries@wm-referrals.com](mailto:enquiries@wm-referrals.com). Consider texting/emailing pictures.**