

Urethrostomy in the dog

Indications:

Urethrostomy entails making a new ‘stoma’ (opening). This is a procedure that is only recommended if other management options are not possible, or have failed. Indications are:

- urethral obstruction that cannot be unblocked
- distal urethral tear, tumor, trauma or stricture

Preoperative workup and other diagnostics:

Most of these patients are referred for surgery either emergently or urgently, as they suffer from urinary obstruction/inability to urinate.

Their work up includes:

- General physical examination prior to anesthesia
- Preoperative laboratory work & imaging:
 - Mostly done prior to referral to the soft tissue surgery service
 - But the workup will typically involve bloodwork & other lab analyses as well as imaging – starting with radiographs, and if needed additional imaging such as ultrasonography, CT, contrast study or contrast CT (especially in the cases where a tear or stricture is suspected).

Procedures:

Urethrostomy

An urethrostomy in the dog can be performed in one of 3 locations: prescrotal (between the os penis and scrotum), scrotal (in the area of the scrotum, after a neuter and scrotal ablation), or perineally (just below the anus). A scrotal urethrostomy is preferred, as the diameter of the urethra in this location is larger than in the prescrotal area, but it still lies superficially and is removed from the anus (as opposed to the perineal location). A skin incision is made, and tissues dissected away from the urethra. The urethra is incised over several centimeters and the walls of the urethra are sutured to the skin, creating a new permanent urinary opening.

Scrotal ablation & castration/neuter

Neuter, and removal of the scrotal tissue is required to perform a scrotal urethrostomy.

Cystotomy

If stones are present, and a stuck stone is cause for performing a urethrostomy, a cystotomy during the same surgery might be needed. For more specific information: see [cystotomy](#).

Penile amputation

In the event of cancer, or severe trauma to the penis, a penile amputation might be needed, necessitating the creation of a new urinary opening (urethrostomy). After removal of the tissues and making the urethrostomy, the skin at the surgery site will be



sutured together, leaving only the urethrostomy visible. This procedure is not performed for urinary obstructions due to stones, or strictures.

Complications:

- Anesthesia: as with any surgical procedure, there are always risks associated with general anesthesia. For otherwise healthy pets, these risks are usually low, but are considered increased in animals with systemic illness, such as urinary obstructions – especially for chronic obstructions.
 - Surgical site dehiscence: opening up of the site might allow urine to leak in the tissues surrounding the stoma, and will predispose to stricture formation after. Surgical intervention might be needed if the sutures pull out/are removed prematurely (for example by licking, or rubbing the site).
 - Bleeding: the urethra in this area is surrounded by very vascularized tissue (swell tissue), and bleeding might be seen from the site in the first postoperative days. Excitement might increase the amount of bleeding seen.
 - Stricture of the site: this could happen shortly after surgery, or weeks to months later. Severe strictures might predispose to urinary obstructions and might need to be surgically revised.
 - Increased risk for urinary tract infections.
- Your surgeon will discuss these complications in more detail during your pet's visit.

In hospital care:

- Hospitalization and intravenous fluids are typically needed postoperatively to recover from surgery. Depending on severity and duration of urinary obstruction, it can be several days, or even longer, until your pet is healthy enough to continue care at home.
- E-collar at all times to avoid your pet being able to lick at (and traumatize) the surgical site.

At home care:

- Exercise restriction: leash walks/exercise restriction for the first 10-14 days after surgery to allow all the incisions to heal.
- Incision care: most important is to not clean the site. It is OK if there are some blood clots or if there is a scab. Cleaning, especially wiping, will damage the fragile tissue of the urethra and stoma.
- It is important that your dog wears an E-collar at all times to prevent him from licking at the site. Similarly, he should be kept away from any furry housemates to avoid them cleaning the surgery site for him. The E-collar must be worn as long as the incision is still healing (first 10-14 days postoperatively) and until the site is checked during a recheck visit.

Prognosis:

Generally good, but dependent on the reason of surgery (stone formation vs cancer).