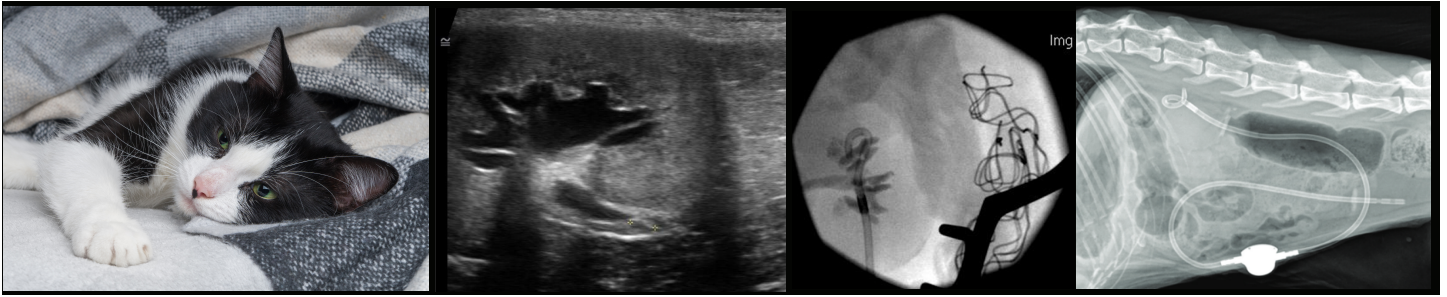


# Subcutaneous ureteral bypass (SUB)



**VETERINARY MEDICINE  
& BIOMEDICAL SCIENCES**  
TEXAS A&M UNIVERSITY



**Procedure:** The SUB device is placed surgically, and provides a man-made pathway for urine to flow from the kidney to the bladder. A flushing port is placed under the skin on the abdomen. The device is regarded as permanent.

**Indications:** Ureteral obstruction due to stone, stricture, or tumor.

**Patient eligibility (species, size, gender):** Cats and dogs with ureteral obstruction. Ureteral stents are generally preferred to the SUB device in dogs.

**Cost:** \$8,000-10,000, depending on number of devices needed (i.e., if one or both kidneys are obstructed). Pre-operative evaluation (labwork, urine culture, etc.) and supportive care (fluids, antibiotics, etc) are often required and will incur additional costs. Total costs are often \$12,000 - 14,000 for critically ill animals.

SUB devices require regular flushing to prevent complications. These visits require sedation and cost \$500-600.

**Length of stay:** At least 24 hours post-procedure; longer if medically necessary.

**Complications:** Obstruction of the SUB tubing due to bleeding, infection or encrusting is a major complications. In some cats, the tube in the bladder causes discomfort and bloody urine.

**Anticipated outcome:** A SUB device can reliably relieve acute and chronic ureteral obstruction and improve or stabilize function in the affected kidney(s). Patients with a history of stone formation are more likely to encrust the device.

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