

# Urologic Surgical Associates of Delaware

## *Specializing in Robotic Surgery*

### **Robotic Ureteral Reimplant**

[Da Vinci](#) Robotic Ureteral Reimplant (also known as Robotic Assisted Ureteral Reimplant) is the most advanced method of performing laparoscopic ureteral reimplantation. This minimally invasive procedure coined its name from the [Da Vinci® Robot](#), which is manufactured by [“Intuitive Surgical”](#). A ureteral reimplant is a surgical reconstruction of the ureter (the tube that carries urine from the kidney to the bladder) to treat a ureteral scarring or stricture or blockage.

The Robot combines the latest achievements in medical technology and laparoscopy including:



Surgeon's console and patient side cart



High-performance InSite® Vision System



Proprietary EndoWrist® Instruments

- Ergonomically designed surgeon's console  
While sitting comfortably at the console, the surgeon operates while viewing a 3-D color image of the surgical field.
- Patient-side cart with four interactive robotic arms (three instrument arms and one endoscope arm)  
Endowrist instruments execute the surgeon's commands through the key-hole port sites in the patient's abdomen. Surgical team members assist the surgeon by properly installing the Endowrist instruments.
- High-performance InSite® Vision System  
with high-resolution 3-D endoscope provides real-time 3-D images of the operative field, with magnification of 12-15 times. This advanced technology spares nerves and delicate tissues during the operation, which plays an important role in patients' fast recovery and maintenance of the patients' sexual and urinary function.
- Proprietary EndoWrist® Instruments  
The instruments are designed with seven degrees of motion that mimic the movements of the human hand and wrist. All movements of the surgeon hands are translated into precise movements with micro-instruments.

Ureteral stricture or scarring or blockage can cause kidney failure and generally mandates that the patient have an indwelling ureteral stent (a plastic tube from kidney to bladder to keep the

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ureter draining). The stent must be changed every three months unless the ureter can be reconstructed to drain into a new location in the bladder. Reconstructing the ureter to bypass the stricture scar obstruction is called ureteral reimplantation.

There are minimally invasive endoscopic (telescope into the bladder or ureter) techniques to incise, dilate, or laser the stricture. For difficult strictures these techniques may be considered as a first line treatment but they tend not to have lasting results. For this reason, in most cases a more definitive repair should be considered.

Definitive surgical repair of a ureteral stricture is a ureteral re-implantation. The ureter is mobilized and sutured into a new location higher up on the bladder. This may require some reconfiguration of the bladder as well to meet the shorter ureter (the ureter is shorter now because the strictured segment is excluded from the repair). If the stricture is too high on the ureter a ureteral re-implant may not be feasible. In these cases a segment of bowel is used to replace the entire ureter.

Ureteral re-implant is a major open operation requiring a ureteral stent for six weeks, two bladder catheters for two weeks, and a one week hospital surgery. With robotic technology there is no incision, only one bladder catheter for one week, and the ureteral stent stays in place for 4 weeks. Most patients will leave the hospital 1-2 days after robotic ureteral reimplant and then return to the office in one week for removal of the bladder catheter.