

Pyeloplasty

Pyeloplasty Video

Who is suitable for a robotic-assisted pyeloplasty?

Robotic-assisted pyeloplasty is the most precise, accurate and minimally-invasive surgical technique for correcting PUJ obstruction.

Patients who have a PUJ obstruction often experience a range of symptoms that occur because the kidney is not draining properly. Most commonly, the kidney is blocked in the region where renal pelvis attaches to the ureter (the tube that carries the urine to the bladder). This blockage may result in back/flank pain, infection and permanent damage to the kidney.

What are the advantages of having a robotic-assisted pyeloplasty?

Robotic-assisted pyeloplasty is safer and more precise than open pyeloplasty.

When compared to traditional open pyeloplasty, or even to regular laparoscopic pyeloplasty, robotic-assisted pyeloplasty offers patients the following advantages:

- Shorter operating time
- Less blood loss
- Shorter hospital stay
- Faster recovery
- Less pain following surgery
- Much smaller incisions and less scarring.

Advantages for the surgeon include:

- Magnified 3D vision in high definition inside the patient's body

- The ability to conduct a greater range of movement using very small and precise instruments.

How is a robotic-assisted pyeloplasty performed?

- The patient is placed under general anaesthetic for the duration of the procedure
- 3-5 small keyhole incisions are made in the patient's abdomen, through which the camera and robotic instruments are inserted
- The surgeon controls the robotic instruments to remove the narrow or blocked part of the ureter tube
- Reconstructive surgery is performed to meticulously suture the healthy ureter back to the kidney (renal pelvis)
- A small ureteric stent tube is temporarily placed within the ureter in order to assist the healing process; this is easily removed after about one month

What to expect after a robotic-assisted pyeloplasty?

- Following a robotic-assisted pyeloplasty, most patients will stay in hospital for 1-2 days
- You will have a urinary catheter in place for around 24 hours following the surgery
- You may have a small drain tube in place which prevents fluid from building up around the kidney following the repair. This will usually be removed at the same time as the urinary catheter.
- You will be encouraged to walk around as soon as you're able to following your surgery to minimize the chance of pneumonia or blood clots (deep vein thrombosis)
- Most light duties can be resumed within a few days, although strenuous exercise and heavy lifting should be avoided for around 4-6 weeks
- Your stent will be removed under light sedation via a flexible cystoscopy (a small telescope passed into the bladder) around 6 weeks post-surgery – there are no cuts involved

Procedure outcomes

Robotic-assisted pyeloplasty is successful in the vast majority of cases, while avoiding the large incision, pain, longer hospital stay and longer recovery period of traditional open surgery.

You will require follow-up scans after about 3 months (and possibly in the future) to ensure the kidney is draining appropriately and to ensure no recurrence of blockage (this is rare).

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Urology Care Foundation, (2021), Uteropelvic Junction (UPJ) Obstruction, [[https://www.urologyhealth.org/urology-a-z/u/ureteropelvic-junction-\(upj\)-obstruction](https://www.urologyhealth.org/urology-a-z/u/ureteropelvic-junction-(upj)-obstruction)], accessed 18/02/21.

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