



LAPAROSCOPIC PYELOPLASTY FOR PUJO

PUJ obstruction is a congenital (developmental) abnormality of transport at the junction of the renal pelvis and the ureter, resulting in obstruction. This typically presents in:

1. infants on ultrasound screening
2. young adults with flank pain, often associated with alcohol and caffeine
3. older adults with kidney infection and non-functioning kidney

Surgery aims to relieve the obstruction, curing symptoms and preventing functional deterioration. It is generally not possible to recover that function already lost. However, relieving obstruction may preserve residual function.

The commonest and most effective and reliable treatment for PUJ obstruction involves removing the abnormal segment of ureter and rejoining the kidney to the normal ureter. This may be achieved through laparoscopic (key-hole surgery) or open surgery.

Laparoscopy is associated with less pain, fewer complications and superior recovery, compared to open surgery, and has become the standard of care. Internally, the surgery is very similar to the older open operation, and achieves similar results in terms of cure of the underlying condition. In general, laparoscopy has longer operating times than open surgery but this does not equate to more complications. In common with all laparoscopic surgery, hospital stay is short and recovery is quicker than the open procedure with few or no wound-related problems.

The procedure is performed under general anaesthetic and surgery performed using a camera and telescope system through the ports (keyholes).

An internal plastic stent is left in the ureter, from the kidney to the bladder, which must be removed around 6 weeks after the surgery, by flexible cystoscopy.

WHAT TO DO BEFORE YOUR PROCEDURE:

- ensure laboratory tests are done > 48 hours prior to surgery, unless advised otherwise
- discontinue aspirin and other anticoagulants 1 week prior, other medications may also need to be stopped
- nothing to eat or drink from 6 hours prior to procedure - see Admission Booklet regarding diet restrictions
- microlax enema morning of the procedure for afternoon procedures, evening prior for morning procedures
- you will be admitted to hospital on the day of surgery.
- you do not need to shave prior to surgery

WHAT HAPPENS IN HOSPITAL AFTER YOUR PROCEDURE:

- day 1: urethral catheter will be removed
- your hospital stay is commonly 1-3 days

WHAT HAPPENS AFTER YOU LEAVE HOSPITAL:

- recovery is reasonably quick, with return to normal activities including driving after 10 days.
- withhold aspirin and other anticoagulants for 1 week but reinstate other usual medications.
- the Steristrip (tape) dressings should be left on the wounds for 4 weeks. If the Steristrips come off, the wounds should be left exposed without further dressings applied
- post-operative constipation is a common problem and may be minimised with good fluid intake, dietary fibre and laxatives.



- you may not drive for 24 hours post procedure and see Admission Booklet regarding further restrictions following general anaesthetic
- avoid heavy lifting for 2 weeks; thereafter resume normal activity including sexual intercourse
- fatigue continues for several weeks after surgery. You are encouraged to return to normal activities early, accepting the fatigue, which although limiting, will resolve progressively and completely.

WHAT CAN GO WRONG:

Although most cases proceed without particular difficulty and have excellent outcomes, surgical complications occur overall in 5% of patients. The list below details complications recognised as common or serious, but this does not include the rare and extraordinary. Risk of death is approximately 0.03% in generally healthy patients.

AT THE TIME OF AND EARLY AFTER SURGERY:

- Failed procedure and conversion to open procedure <1%
- Bleeding requiring blood transfusion in < 1%
- Infection may require antibiotic treatment <3%
- Temporary shoulder pain is common after laparoscopy
- Damage to other organs, including bowels, spleen, liver and gall bladder, nerves and lymphatics, and CO2 gas embolism
- Numbness or tingling in legs, genitalia and perineum is usually temporary
- Clots (DVT, PE), gas embolism
- Risk of death may be estimated using the nzRISK <https://nzhrisk.com> on-line pre-operative calculator. It has been developed and validated for patients in New Zealand over the age of 18, to help patients and doctors balance benefits and risks of treatment.

LATER POTENTIAL COMPLICATIONS :

- Port site hernia
- Adhesions
- Recurrent PUJ obstruction
- Continued deterioration of renal function in the operated kidney despite effective treatment of the PUJ obstruction
- Recurrent flank pain similar to pre-surgery