

## URETERIC REIMPLANTATION

### Introduction

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The kidney produces urine that passes to the bladder through a 20-25cm thin tube called the ureter. When the lower end of ureter is blocked or damaged, the kidney becomes obstructed and may irreversibly lose function. This may occur after pelvic surgery on the uterus, ovaries or bowel. Reconstructive surgery can be attempted to repair the ureter but carries a moderate risk of scarring and complications. Most surgeons would prefer to perform a ureteric reimplantation, where healthy ureter above the affected segment is attached to the bladder, bypassing the obstruction. A JJ stent (plastic tube with curls on either end) is placed for 6 weeks to allow urine to drain freely and the anastomosis to heal well without stretch or pressure.

### What does the procedure involve?

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Under general anaesthesia, the bladder and healthy ureter above the diseased or damaged segment are dissected free and mobilised so there is enough length to join them together. If the ureter is too short, an extension known as a Boari flap can be created from the bladder to bridge the gap. The affected segment may be left behind if there are no concerns for malignancy. The ureter is joined to the bladder with dissolvable stitches over a JJ stent. At the end of the operation, a drain (tube) is then placed near the join and the skin incisions closed.

Boari flap video (1:51 mins) <https://www.youtube.com/watch?v=rWvRsX3X890>

### What are the alternatives?

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Laparoscopic or robotic surgery  
Insertion of JJ stent (changed every 12 months)  
Observation

### What are the risks of surgery?

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All operations have risks. For ureteric reimplantation, potential complications include:

#### Common (>10%)

Frequency, urgency and blood in the urine (especially with stent)  
Back pain when passing urine (pressure transmitted to kidney through stent)

#### Occasional (1-5%)

Infection  
Anastomotic leak or scarring - further stenting or surgery  
Development of a hernia in the wound sites

**Rare (<1%)**

Damage to surrounding organs (bowel, liver, spleen or major vessels)  
Anaesthetic or cardiorespiratory problems requiring intensive care  
Chest infection, clots in the legs and lung, stroke, heart attack, death

**What should I do before surgery?**

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- Test the urine 1-2 weeks prior to the procedure to ensure there is no infection
- Do not eat, drink, or chew gum for 6 hours before surgery
- If you are on blood thinning medication, discuss this with your surgeon

**What should I expect after surgery?**

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The usual hospital stay is 1-2 nights. Sips of fluid are provided initially, followed by light diet. Please ask for pain or nausea medication if required. The nurses will assist with daily activities and remove the urinary catheter the following morning. Try to sit out of bed and go for short walks to improve breathing and circulation. The abdominal drain will be removed prior to discharge and the JJ stent will remain inside to protect the anastomosis for 6 weeks.

**Discharge information**

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Drink 2L of fluid each day and eat a normal diet. Do not lift anything >5kg or perform strenuous work for 4-6 weeks. It is normal to see amounts of blood in the urine intermittently and experience pelvic or back discomfort during physical activities or when passing urine (pressure transmitted to the kidney through the JJ stent). These symptoms will resolve once the stent is removed. If simple pain killers are not enough, ask Dr Ooi for other medications to relieve the symptoms.

Please contact Dr Ooi's rooms, the hospital, ward or nurse manager if you have any concerns, such as excessive pain, bleeding, difficulty emptying your bladder, wound infection, fever or feel unwell. General advice is also available on our website in the Procedures section.

Dr Ooi will call or see you 2 weeks after surgery to check your progress. A flexible cystoscopy will be arranged as a day procedure under local anaesthetic to remove the stent 6 weeks after surgery. Further scans are then performed after 3-6 months to ensure that the kidney is draining well.