

Procedure Specific Information Sheet

Pyeloplasty

Dr Vasudevan has recommended that you have a pyeloplasty. This document gives you information on what to expect before, during and after the operation. If there are questions that this document does not answer, please ask Dr Vasudevan

What is a pyeloplasty?

Pyeloplasty is a surgical procedure designed to reconstruct the renal pelvis (the part of the kidney that collects the urine from the meat of the kidney). On completion of the procedure the kidney drains urine freely.

Why do I need a pyeloplasty?

Investigations done so far would have indicated that you have a condition called Pelvo-ureteric Junction (PUJ) obstruction. The obstruction at this point blocks the kidney from draining urine. In order to remove the obstruction and restore urine flow a pyeloplasty is needed.

What happens if I do not have the procedure?

In the event you decide not to proceed with the procedure several possible long term complications may occur to the kidney. They include:

- Loss of kidney function
- Repeated urine infections
- Formation of kidney stones.

What happens in the pre-operative consultation?

Dr Vasudevan will organise a date for your procedure. By now, you would have had the necessary investigations such as CT and MAG -3 scans and blood tests.

Dr Vasudevan will discuss with you what the operation entails and the possible risks involved. He will then ask you to sign a consent form for the operation to proceed.

What should I do about my medication?

Please inform Dr Vasudevan of all the medications that you are on in the pre-operative consultation. If you are taking some blood thinning medications they may need to be stopped prior to surgery. He can advise you appropriately.

What can I do to make the operation a success?

If you smoke, stopping smoking several weeks or more before the operation may reduce your risk of developing complications and will improve your long-term health. Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight. Regular exercise should help to prepare you for the operation, help you to recover and improve your long-term health.

Laparoscopic or open approach?

A pyeloplasty can be done either laparoscopically or as an open procedure. Laparoscopic pyeloplasty has a shorter stay in hospital and a quicker post-operative recovery. However, in some situations a laparoscopic approach may not be feasible and in such cases the open approach is used. Dr Vasudevan will discuss with you which approach is most suited for you depending on your other medical conditions and other abdominal surgeries that you may have had.

What does the operation involve?

The healthcare team will carry out a number of checks to make sure you have the operation you came in for. You can help by confirming to Dr Vasudevan and the healthcare team your name and the operation you are having.

You will be given anti-embolic stockings to wear prior to surgery to reduce the risk of blood clots in your legs.

Also, prior to being taken into the operating theatre and with you fully awake, Dr Vasudevan will confirm with you and mark the kidney to be operated on with a permanent marker. Once this critical step is complete you will be taken into the operating theatre.

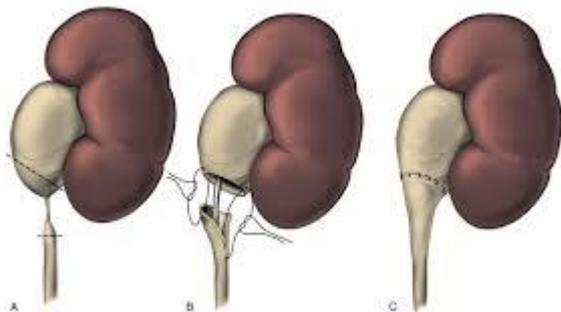
Once in the operating theatre you will be given a general anaesthetic, so that you will not be aware of anything whilst the operation is being performed. The anaesthetist will discuss this with you.

Once you are asleep the surgical team will insert a catheter (IDC) into to your bladder to drain the urine from your bladder.

Laparoscopic pyeloplasty

You will be repositioned on your side with the kidney to be operated on uppermost. 3 appropriately placed small incisions are made in your abdomen. Using a camera and other small instruments the area of obstruction (the PUJ) is identified. The obstructed area is then cut and completely removed. A “new” join is then formed between the ureter and kidney using dissolvable stitches. Before completing the new join a stent is placed into the ureter and kidney. The stent traverses the new join and allows for the join to heal properly.

If a crossing vessel is present the join is done on the other side of the crossing vessel. The vessel is preserved as it provides some of the blood supply to the kidney.



On completion of the procedure a drain is left inside the body near the site of the operation. The drain comes out through the skin and is attached to a drain bottle.

The key hole incisions are closed with dissolving stitches.

The operation takes about 3 hours.

Open pyeloplasty

The surgical principles of an open pyeloplasty is identical to the laparoscopic method, except that instead of 3 small incisions, 1 medium size cut is made under your rib on the involved side. Once the procedure is completed the cut is closed with dissolving stiches.

The operation takes about 2 hours.

What can I expect after the operation is completed?

You will wake up in the recovery area in your bed. When the nurses in the recovery area are happy with your condition a nurse from the ward will take you back to the ward.

Once on the ward, you will be observed closely by the nursing staff. Regular observations will be done to ensure that you are recovering well.

The following day, you will be encouraged to sit out of bed and will be given a light diet. As your mobility improves the catheter from your bladder will be removed. Once the catheter is removed the output from the drain bottle is observed closely for 24 hours. If there is minimal output the drain is removed. If the output is more than expected the drain will be left in for a few more days. Once you are able to eat and drink normally and are reasonably independent with your activities, you can be discharged home.

You can expect to be discharged home after about 3 to 4 days.

Stent removal

6 weeks after the procedure the new join would have healed and the stent that is in the ureter can be removed. During the 6 weeks that the stent is in place it is common to have

- a bit of blood in your urine as the stent can irritate the bladder
- pain when passing urine which is felt in the back, lower abdomen or tip of penis

The stent is removed using a flexible cystoscope. The procedure is done under a local anaesthetic and only takes a few minutes to do.

What are the possible complications of a pyeloplasty?

Dr Vasudevan will try to make the operation as safe as possible but sometimes complications can happen.

The possible complications include:

- Anaesthetic complications- The anaesthetist will discuss this with you.
- Bleeding – it is rare for excessive bleeding to occur. It is even more rare to require a blood transfusion. If you do not consent to a blood transfusion please let Dr Vasudevan know prior to surgery.
- Infection – Antibiotics are given during surgery to minimize infections. Despite this infections can occur. If you notice symptoms of an infection such as redness to the wound, fever or discharge from the wound let Dr Vasudevan know so that antibiotics can be given.
- Conversion to open surgery - the surgical procedure may require conversion to a standard open procedure if difficulty is encountered during the laparoscopic procedure.

- Injury to adjacent organs – The kidneys are close to a number of important organs such as liver, spleen and bowel. Although rare, accidental damage to these organs may occur. If damage does occur further surgical correction may be required.
- Urine Leak – if the new join is not “water tight” then urine may leak from the join. In such cases the catheter will need to be re-inserted and the drain will be left in for longer. The leak can settle by itself with this conservative management. If however, the leak does not settle then a repeat correction procedure is required.
- Procedure is not successful – despite removing the blockage the operation may not be successful in 5% of people

How soon will I recover?

- Pain control – You may have some discomfort at the sites of incisions for a few days. Paracetamol should be sufficient to control your pain. If the pain is excessive let Dr Vasudevan know.
- Showering – You may shower as per normal when you return home. The wound sites can get wet, but must be patted dry after showering. Tub baths are not recommended in the first 2 weeks after surgery as this will soak the incisions and increase risk of infections
- Activity – Taking walks is advisable. Prolonged sitting or lying in bed should be avoided. Climbing stairs is allowed but done slowly. Driving should be avoided for 1 to 2 weeks. Do not lift heavy items or do vigorous exercise for 6 weeks. You can return to work in about 4 weeks.

Follow-up appointment with Dr Vasudevan

Dr Vasudevan will make an appointment for removal of the stent 6 weeks after surgery. But he will also need to see you in his office 8 weeks after the operation. Please ring his office once you leave hospital to arrange this appointment. Prior to the 8 week appointment Dr Vasudevan will arrange a repeat MAG 3 scan to ensure that the operation has been successful. The post-operative MAG 3 scan will be compared to the pre-operative MAG 3 scan to confirm free drainage of urine.

Also during this appointment he will assess your wound and general well being. If all is well you can then be discharged from any further treatment.