

The Children's Hospital

PUJ obstruction & Pyeloplasty

Information for parents and carers



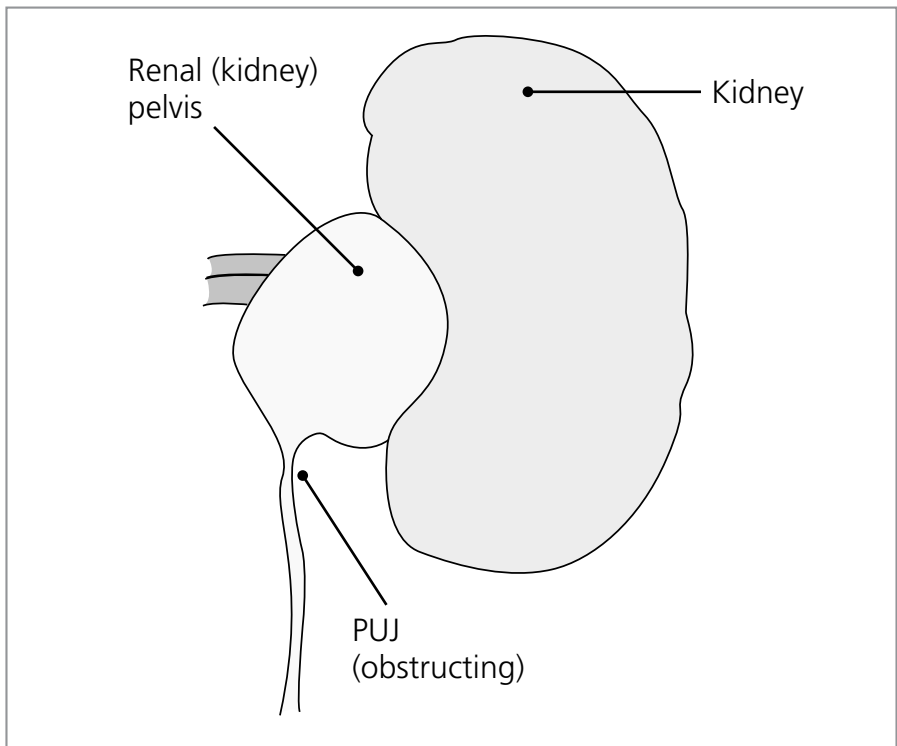
What is PUJ obstruction?

PUJ stands for 'pelvic ureteric junction'. This is the connection between the renal pelvis and the ureter (tube running from the kidney to the bladder).

The kidneys are made up of two parts; the filtering part and the collecting part. The renal pelvis is where the urine collects, to then drain down the ureter into the bladder.

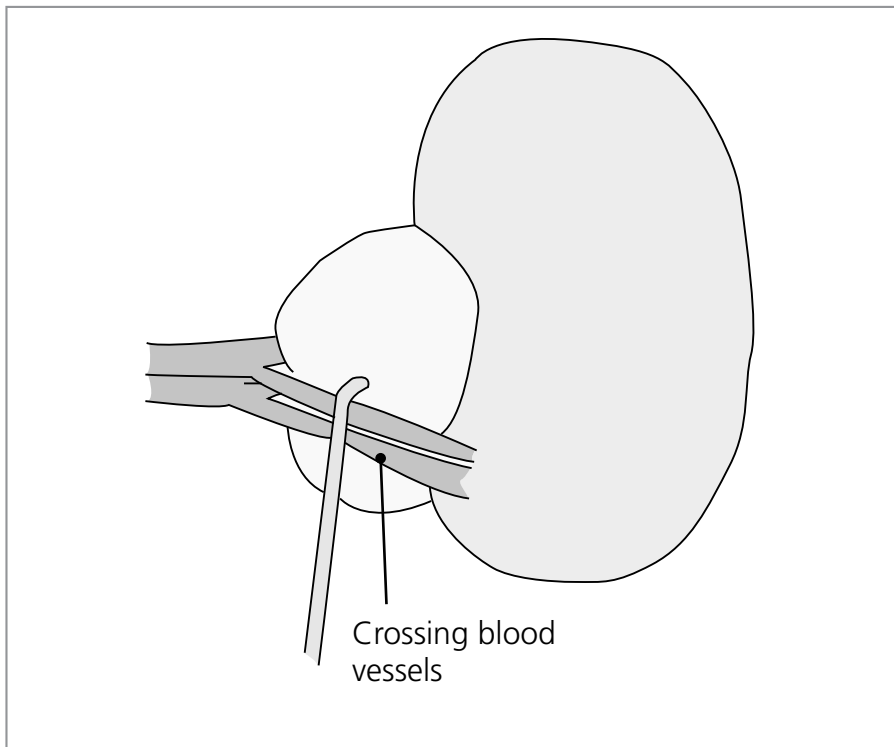
Sometimes the connection between the renal pelvis and the ureter is too narrow. This is called a pelvic ureteric junction obstruction (PUJ obstruction).

PUJ obstruction is quite rare, affecting only 1 in 1500 children. It can be present from birth, although it can take time for symptoms to become obvious.



Less commonly, the obstruction is caused by a blood vessel which crosses the renal pelvis, causing a blockage. This type of PUJ is often seen in older children. Because the obstruction is affected by blood flow the problem might stop and start, depending on how much blood is going through the vessel.

PUJ obstruction can cause pain, repeated urine infections and damage to the affected kidney, but often there are no symptoms at all.



How do we diagnose PUJ obstruction?

Diagnosis is normally made by using an ultrasound scan. This will show up dilatation (enlargement) of the renal pelvis but a normal size ureter. We also perform a special test called a MAG-3 which can show how well the kidney is working and draining.

Does it always need an operation?

No. If the MAG-3 shows that the kidney is draining and working well and your child does not have any pain or repeated urine infections, we will often not perform an operation. In this case we will monitor your child as an outpatient (checking urine and blood samples, weight and blood pressure).

What happens before the operation?

If your child does need an operation, their surgeon will visit to explain the operation in more detail and discuss any worries or concerns you may have.

An anaesthetist will visit you to discuss the anaesthetic your child will have for the operation. They will also talk with you about the pain relief which your child will need after the operation.

We will ask you for your written consent for the operation to go ahead. If there is anything you are unsure about, or if you have any questions, please ask the doctor before signing the consent form.

If your child has any medical problems or allergies, please tell the doctors. Please also bring in any medicines your child is currently taking. Your child will normally be admitted on the day of surgery.

What does the operation involve?

The operation is done under a general anaesthetic. This means your child will be asleep throughout the operation. You can go with your child to the anaesthetic room and stay with them until they are asleep. The nurse will then take you back to the ward.

The operation can be done both laparoscopically (by key hole surgery) and by open surgery. Laparoscopic surgery would involve several small cuts in the abdomen. Open surgery would be through a cut in their side just below the ribs.

The ureter is then disconnected from the renal pelvis and the narrow part of the ureter is removed. It is then reattached to the renal pelvis.

If there are blood vessels crossing the ureter, the ureter will be reattached to the renal pelvis in front of the vessels. This stops them from squashing the ureter and causing a blockage.

Are there any risks?

Surgical risks:

All operations carry with them risks and these will be explained in detail before you sign the consent form. However the risks are rare. The most common risks are:

- bleeding
- infection
- slight muscle bulging
- urine leak.

Anaesthetic risks:

In modern anaesthesia, serious problems are uncommon. Risk cannot be removed completely, but modern equipment, training and drugs have made general anaesthesia a much safer procedure in recent years.

Most children recover quickly after their operation and anaesthetic. Some children may suffer side effects like a sore throat or sickness. These usually last only a short time and there are medicines available to treat them if necessary.

The exact likelihood of complications depends on your child's medical condition and on the nature of the surgery and anaesthesia they need. The anaesthetist can talk to you about this in detail prior to the operation.

What happens after the operation?

When your child wakes up and is ready to return to the ward, a nurse will take you to recovery to collect them.

The nurses will monitor your child and give them pain relief to keep them comfortable. Your child will be assessed regularly for pain using a pain assessment chart. This will help the nurse to effectively manage your child's pain after the operation.

They will be able to drink shortly after the operation but may need a 'drip' overnight to ensure they are getting enough fluid. This is a small tube which will be put into a vein. It is attached to a bag of liquid which will slowly 'drip' into their vein.

Your child may have a plastic tube (catheter) draining urine from their bladder. Your nurse will measure what is coming out of this tube as well as what fluid your child is taking in, either by drinking or by drip. This is make sure that there is good balance of urine being produced compared to how much liquid they are being given.

Most children go home within two days of surgery when they are more comfortable and are able to walk around.

The hospital experience is strange and unsettling for some children so do not be concerned if you child is more clingy, easily upset or has disturbed sleep. Just be patient and understanding.

What happens next?

After the operation we will arrange for a follow-up outpatient appointment and scans. Usually the first scan we do is an ultrasound scan to check on your child's kidneys.

How to contact us

If you have any questions or concerns about your child when you return home you can telephone:

Tom's ward: 01865 234 109 or 01865 234 110 (24 hours)

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALSJR@ouh.nhs.uk**

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