Ureteral Reimplantation

When should I call Pediatric Urology?

- The suprapubic catheter is partly or completely pulled out.
- The suprapubic catheter stops draining urine for more than 4 hours and you cannot correct the problem.
- The pink or red colour of the urine does not go away (this can take up to 2 weeks) or there is continuous bright red blood in the urine.
- Fever, a temperature of 38.5°C (101.3°F) or higher.
- Increasing redness, swelling or drainage from the incision or the suprapubic catheter insertion site.
- Continuous, bright red bleeding from the incision.
- Increasing or severe pain that is not relieved by medication for pain or bladder spasms (oxybutynin chloride).

How do I contact Pediatric Urology?

Call McMaster Children’s Hospital: 905-521-2100:

- Natasha Brownrigg, Pediatric Nurse Practitioner – ext. 73070
- Mary Rickard, Pediatric Nurse Practitioner – ext. 73850
- Pediatric Urology Offices – ext. 73777

For urgent concerns or if your child looks unwell:

- Bring your child to the Emergency Department at McMaster Children’s Hospital.
- If you live outside Hamilton, take your child to the nearest hospital Emergency Department.

Ureteral Reimplantation

What is ureteral reimplantation?

Ureteral reimplantation is surgery to disconnect the ureter from the bladder and reattach it in a better position. One or both ureters may need to be reimplanted.

To understand this surgery, it can help to review how urine should flow.

Normally urine flows one way; from the kidneys, down the ureters to the bladder.

Urine is stored in the bladder until it is passed out of the body, through the urethra.

Ureteral reimplantation is done for 2 reasons:

1. Vesicoureteral reflux (VUR)
   - Urine flows backwards, up from the bladder towards the kidney. This can cause infections in the kidneys (called pyelonephritis), which can damage them.
   - The goal of ureteral reimplantation surgery for VUR is to correct the backflow of urine and prevent kidney infections.
2. Megaureter:
- Urine does not flow well through the connection between the ureter and the bladder. As a result, the ureter becomes wider (dilated).
- The goal of ureteral reimplantation surgery for megaureter is to allow good drainage of the affected kidney(s).

![Diagram of ureteral reflux (VUR) and megaureter]

VUR is "graded" from 1 to 5, depending on the severity of the problem.

Learning checklist

**How to care for the suprapubic catheter**
- Once a day, remove the old dressing, clean the catheter site and apply a new dressing.
- Empty the catheter bag at least every 4 hours during the day. At night, empty the bag around midnight and again at 6 am.
- If the catheter is not draining, flush the catheter with a syringe and sterile normal saline.
- Know what to do when there is a problem. For example: the urine bag falls off the catheter tubing.

**How to give your child medications**
For each medication, you need to know:
- The name and purpose of the medication.
- How much to give and when to give it.
- What side effects to watch for and when to get help.

**How to care for your child during recovery**
- Care for the surgical incision.
- Follow recommendations for your child’s diet and activities.
- Take your child for a follow-up appointment in the 2G Pediatric Urology Clinic.

What follow up care does my child need?
Before leaving the hospital, make an appointment for a follow-up visit in the 2G Clinic.

To make or change an appointment, call the 2G Clinic: 905-521-2100, ext. 78517.
It is important to make sure the tube does not get pulled out.

- Tape the tube firmly 1 to 2 inches from the insertion site, as the nurse has shown you.
- Support the weight of the bag by pinning it to the inside of your child’s clothes. Wearing a one-piece suit may help to stop your child from tugging at the tube.
- Empty the bag as needed, so it does not become heavy and pull on the tube and insertion site.

The suprapubic catheter will be removed in the clinic, 7 to 10 days after surgery.

How do we prepare to go home?

Before you go home the health care team will help you learn what to expect during your child’s recovery and how to care for your child, including activity, diet, and incision care. Home care nursing services may be arranged, if needed.

The nurse or pharmacist will review the medications your child should continue taking at home.

The nurse will show you how to care for the catheters and give you written instructions to follow. You will practice this in the hospital, with the nurse’s help.

You must correctly demonstrate catheter care before going home.

What happens right after surgery?

Your child will go to the Post Anesthetic Care Unit (PACU) after surgery. In the PACU, your child will be closely monitored until he or she is fully awake. As soon as possible, the nurse will bring you to the PACU to be with your child.

When your child is fully awake, you and your child will go to the children’s ward. The nurse on the ward will continue to check your child’s vital signs, intravenous, catheter(s) and incision. The nurse will show you how to care for the dressing, catheter and incision.

Understanding your child tubes

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What activity can my child do?

We will encourage your child to get out of bed the day after surgery. Getting out of bed and moving around is an important part of getting better. The nurses will give your child pain medication to help with this.

Your child should have a sponge bath each day. He or she should not have a bath or shower until after the suprapubic catheter is removed.

Your child should avoid any vigorous activity for about 4 weeks after surgery, especially while the suprapubic catheter or stent is in place.

Your child should avoid:
- any activity that could get dirt onto or near the incision
- swimming (for 3 weeks)
- active exercises, such as playing sports or riding a bike

How can I help my child feel more comfortable?

After surgery, the amount and type of pain is different for each child.

Your child will feel pain after surgery. He or she may cry or be fussy and irritable. In the hospital, nurses will give your child medication to relieve pain and bladder spasms.

At home, you may give your child medication such as acetaminophen (Tylenol® or Tempra®) for mild pain. Follow the directions on the package carefully. For stronger pain, use the prescription pain medication (morphine) as directed by the surgeon.

If your child has a catheter and/or stent, he or she may feel bladder spasms. These sudden pains may make your child suddenly irritable, pull up his or her legs or grab his/her bottom. For this type of pain, give your child oxybutynin chloride (Dipropan®) as directed by the surgeon.

Most children have more pain and discomfort at bedtime or during the night. It may help to give your child pain medication 1 hour before bedtime.

What can I feed my child?

It is best to offer your child water at first. Then begin to add other fluids such as breastmilk, formula or juice. Your child should be able to eat and drink as usual within 12 to 24 hours of surgery.

If your child is taking morphine for pain, he or she could become constipated. Constipation is when bowel movements become dry, hard or difficult to pass. To prevent constipation, have your child drink plenty of fluids and each high fibre foods such as fruits, vegetables and whole grain breads and cereals. Drinking lots of fluids can also help to prevent a blocked catheter.

If your child has not had a bowel movement before leaving the hospital, ask how to manage constipation at home.

How do I care for the suprapubic catheter?

The ward nurse will teach you how to empty and care for the suprapubic catheter. At first, the urine will have a pink or red colour because there is a little blood in the urine. Over time, the colour of the urine should return to normal, usually within 2 weeks.

To prevent infection:
- Wash your hands before and after caring for the catheter.
- Carefully follow the catheter care instructions.

If urine is not draining properly into the bag, the nurse will teach you some ways to correct the problem, such as:
- checking to make sure the tube has not been pulled out
- making sure the tube is not twisted or bent
- gently flushing the tube using a syringe and sterile normal saline
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Your child will stay on the children’s ward for 2 to 3 days.
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- The goal of ureteral reimplantation surgery for megaureter is to allow good drainage of the affected kidney(s).

![Diagram: Vesicoureteral reflux (VUR) and Megaureter]

**1. Vesicoureteral reflux (VUR)**

1. 2. 3. 4. 5.

VUR is “graded” from 1 to 5, depending on the severity of the problem.

**2. Megaureter**

Dilated ureter

What happens before surgery?

Your child will have an appointment in the Pre-op Clinic at the Same Day Surgery Unit. A Child Life Specialist and a nurse will help you and your child prepare for surgery. Your child will also see the Anesthesiologist. This is the doctor who will give your child anesthetic medication during surgery. You will be given a checklist of instructions to follow the day before surgery.

On the day of surgery take your child to the Same Day Surgery Unit. When it is time for the surgery, your child will change into hospital clothes and walk to the operating room with you.

Learning checklist

**How to care for the suprapubic catheter**

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<td>Ask them to page the Pediatric Urologist on call.</td>
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If your child is unwell and needs immediate attention:

- Bring your child to the Emergency Department at McMaster Children’s Hospital.
- If you live outside Hamilton, take your child to the nearest hospital emergency department.

Ureteral Reimplantation

What is ureteral reimplantation?

Ureteral reimplantation is surgery to disconnect the ureter from the bladder and reattach it in a better position. One or both ureters may need to be reimplemented.

Kidney
Ureter
Bladder
Urethra

To understand this surgery, it can help to review how urine should flow.

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