What is a Mitrofanoff?

Mitrofanoff is a surgery to make a new pathway from the bladder to the outside of the body. This pathway is used to drain urine from the bladder with a catheter. This may be easier and more comfortable for your child than catheterizing the urethra, where urine normally comes out the body.

The surgeon will make a new pathway using your child's appendix. The appendix is an unused part of the bowel that is a thin, hollow tube. If the appendix is not available, another part of the bowel is used.

The opening of the pathway may be in or near your child's belly button. The opening is called a stoma.
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 you 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, following the instructions given in your pre-op visit. When it is time for the surgery, your child will go to the operating room. One parent should be able to walk into the operating room with your child.

The Anesthesiologist will give your child medication to breathe in through a mask. This helps your child relax and go to sleep. One parent can stay with your child until he or she is asleep, and then go to the waiting room. When your child is asleep, the Anesthesiologist will put in an intravenous (IV) to give your child fluids and the anesthetic medication, which makes your child sleep through surgery and not feel any pain.

The surgery takes about 4 hours.

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 and incision. The nurse will show you how to care for the dressing, catheters and incision.

When should I call Pediatric Urology?

- The Mitrofanoff catheter falls out of the stoma.
- The Mitrofanoff catheter stops draining and you cannot correct the problem.
- Bright red blood in the urine.
- Urine has a bad smell.
- Fever, a temperature of 38.5°C (101.3°F) or higher.
- Increasing redness, swelling or drainage from the stoma or incision.
- Continuous, bright red bleeding from the stoma or incision.
- Increasing or severe pain that is not relieved by medication for pain or bladder spasms (oxybutynin chloride).

How do I contact Pediatric Urology?

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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.
Learning checklist

How to care for the mitrofanoff catheter

☐ Remove the old dressing, clean the catheter site and apply a new dressing once a day.

☐ Empty the catheter bag at least every 4 hours during the day. At night, empty the bag around midnight and again at 6 am.

☐ Flush the catheter with a syringe and sterile normal saline as needed.

☐ 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 Mitrofanoff stoma and 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?

Your child will return to the hospital for a clinic visit 1 to 2 weeks after leaving the hospital. The nurse practitioner (NP) will teach you how to use a Mitrofanoff catheter to empty your child’s bladder regularly, usually 4 to 6 times a day. Your child may learn to do this on his or her own.

Understanding your child tubes

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How will you relieve my child’s pain?

After surgery, your child will have some pain from the incisions and may have bladder spasms. To treat bladder spasms, your child will be given oxybutynin chloride (Ditropan®).

Your child’s pain will be controlled with medication given through the IV. As the pain gets better, your child can take oral pain medication instead.

What can my child eat and drink?

To let the bowel rest, your child will not eat or drink for a few days. Your child will be given IV fluids during this time.

The Pediatric Urology Team will check your child at least once a day. There will be strict orders for your child’s diet. Your child will start by drinking clear fluids, and then progress to a regular diet.

Drinking lots of fluids will help urine flow well through the catheters. When your child is drinking well and the pain is managed well with oral medication, the IV will be taken out.
What activity can my child do?
At first, your child needs to stay in bed. While lying in bed, encourage your child to move:
- rolling from side to side
- moving his or her legs and feet
- taking deep breaths and coughing

The nurse will help your child get up for the first time. Your child will start by sitting in the chair, then walking a few steps. By the time your child leaves the hospital, he or she will be able to move and walk as usual.

Until the catheters are removed, your child should not:
- soak the surgical areas or catheters in a bath or shower (they may use a hand-held shower or sit at the side of the tub)
- swim
- do active exercises, such as playing sports or riding a bike

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 may 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.

To prevent infection, wash your hands before and after caring for the catheter.

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

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.
- Support the weight of the bag by pinning it to the inside of your child’s clothes.
- Empty the bag as needed, so it does not become heavy and pull on the tube and insertion site.

When can my child go home?
Your child may be well enough to go home in 5 to 7 days. A follow-up appointment will be provided to you.

To make or change an appointment, call the 2G Clinic:
905-521-2100, ext. 78515.

The catheter in the Mitrofanoff stoma must be left in place. Do not remove it until you are told to do so. If needed, we will arrange for nursing services at home (through your Local Health Integration Network or LHIN).

We recommend that you get a “Medic Alert” for your child to wear.

Tell your doctors, the school nurse, and others who care for your child that your child has a Mitrofanoff.

Preparing to go home
Before you go home the health care team will help you learn about your child’s care. The nurse will show you how to care for the catheters. You will practice this in the hospital, with the nurse’s help.

You must correctly demonstrate catheter care before going home.
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