

Bladder

Augmentation and Incontinence Surgery

One of a series of fact sheets produced by the Family Support Service

Some children with spina bifida are born, or develop bladders that do not function properly. If medication and clean intermittent catheterisation (CIC) do not prevent leakage of urine or high bladder pressure that may damage the kidneys, bladder augmentation may be recommended.

What is bladder augmentation?

This is a procedure in which a piece of bowel, stomach or ureter (the tube that carries urine from the kidney to the bladder) is used to enlarge the bladder. This allows the bladder to hold more urine at lower pressure.

What types of surgery are used to stop urinary leakage?

Sometimes bladder augmentation is not needed or is not enough to prevent urinary leakage. In these cases, the incontinence can be stopped in one of two main ways:

Procedures to tighten the urethra:

The urethra can be tightened by using a piece of tissue that is present in the abdominal wall to surround the urethra. Another way to stop leakage is to place an artificial sphincter around the urethra. Pumping a valve that is placed in the scrotum in boys or labia in girls activates the sphincter.

This causes water to fill up the sphincter and gently compress the urethra, preventing leakage. In some cases, the appendix, part of a ureter, or a Fallopian tube can be transferred down to replace the urethra. The tissue is then sewn into the bladder so that no leakage can occur therefore the bladder can only be emptied by catheterisation (CIC).

Continent diversion:

In some cases it is necessary or helpful to bring a channel to the skin to catheterise through instead of using the urethra. This channel may be made up of appendix, ureter, and a piece of bowel or Fallopian tube. The channel is designed to prevent leakage and usually exits at the tummy button. This is called a Mitrofanoff procedure.

(There is a separate information sheet on this)

What is required prior to surgery?

In order to decide what procedure is best, your doctor will need a recent kidney ultrasound, bladder x-ray and

blood tests. You will be asked to collect a urine specimen one week prior to surgery. It is important that the results of the specimen are obtained so that antibiotics can be commenced before coming to the hospital, if necessary.

What happens after surgery?

After the operation you may go into the High Dependency Unit overnight. A tube will drain the bladder and the new channel (Mitrofanoff) is present. Other tubes may be present as well as a tube in the nose (NG tube) to allow the bowel or stomach to rest as it is healing. All fluids, nutrients and medications will be received through an intravenous drip for the first few days.

What happens after I leave hospital?

The tube(s) in the bladder may remain there for 3 weeks or longer. While the bladder drainage tube is in, it is important to make sure that it drains freely. You may need to flush the tube periodically if it does not drain - if you cannot restore drainage, call the hospital immediately. Your doctor may want to ensure that the bladder is healed (by doing an X-ray) and that you can catheterise easily before the bladder tube is removed. It is vital that you call the hospital if you have any questions or problems after surgery.

What problems can occur?

Infection: Infection may present as redness, swelling, drainage, fever or worsening pain at the incision. Bacteria may grow in the bladder after surgery but antibiotics are avoided unless fever, pain, blood in the urine or new urinary leakage is present.

Incontinence: Leakage may persist after surgery, which in some cases is temporary. If leakage does not stop or returns, further tests and/or surgery may be needed in the future to correct the problem.

Abdominal pain: Pain after surgery may mean blockage of a kidney or rupture of the bladder. Rupture can happen a year or more after surgery and is an emergency. If you develop sudden pain, particularly with nausea, vomiting and/or fever, you should call the hospital immediately.

Difficulty catheterising: The Mitrofanoff channel may become difficult to catheterise. If so, special catheters or widening of the channel may be necessary. If difficulty persists, further surgery may be needed.

If you have any questions or would like further information, please do not hesitate to contact the Family Support Workers at:

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