Bladder management and Spina Bifida

The main goals of bladder management are to:
1. Maintain good kidney function and prevent any kidney damage.
2. Achieve and maintain social continence.

What problems can occur with the bladder?
A healthy bladder stores urine and then empties the urine at appropriate times. People living with Spina Bifida can have what is known as a neurogenic bladder. This means that the brain and the bladder are not working together as well as they should. The two main problems that occur are:

- the bladder does not empty properly (retention); or
- the bladder allows urine to leak either some or all the time (incontinence).

Bladders that do not empty completely
A bladder will not empty if the muscle that controls the opening (the sphincter) stays closed all the time. If it stays closed, the urine can’t pass through. If too much urine builds up in the bladder, it will cause a rise in pressure. This will then force the urine back via the ureters into the kidneys. Over time, this will cause pressure on the kidneys and, if it is not treated will damage the kidneys. Urinary tract infections (UTI’s) can also be a problem if the bladder is not emptied of urine. If your child has a UTI, their urine may look cloudy, discoloured, may have a strong fishy smell and can be painful when passing it. Repeated UTI’s can lead to kidney infections and kidney damage.

The usual way to manage this type of bladder is with clean intermittent catheterisation (CIC). CIC is when a disposable catheter (plastic tube) is inserted into the bladder via the urethra to empty it. It is not a sterile procedure but cleanliness is important. Once the catheter has drained as much urine from the bladder as possible, it is slowly removed. This is done during the day but not usually at night while your child is asleep. How many times it is done can vary, but it is usually repeated up to 6 times a day at regular times, and usually not at night while asleep.
CIC is used to improve urinary control for people with abnormal bladder function. It helps prevent urinary infection, and helps to relieve pressure on the kidneys.

CIC helps the kidneys to stay healthy. Drinking enough water is also important. Enough fluid will help prevent urinary tract infections and support good bladder health.

**Bladders that leak urine**

Bladders will leak urine if the muscle that controls emptying (sphincter) is relaxed most of the time. These types of bladders can still have risks of infection and kidney health will need to be monitored. It is most important with this type of incontinence to keep your child clean and dry. Some medications can help improve urine storage in the bladder and reduce leakage. You will be advised on their use by your treating doctor and nurse. Special attention needs to be given to your child’s skin to prevent rashes and skin injuries.

**Management of Urinary Tract Infections (UTI’s)**

Urinary Tract Infections (UTI’s) can be caused by:

- Not emptying the bladder properly and urine stays behind for a long time. This allows bacteria to grow in the urine.
- Unclean catheter techniques.
- Chronic constipation causing difficulties with bladder drainage.

The symptoms indicating a UTI are:

- Unusual wetting between CIC
- Stinging when passing a catheter
- Blood staining of the urine
- Abdominal pain
- Fever
- Headache
- Back pain
- Decreased appetite
- Vomiting and a general feeling of being unwell.

Cloudy smelly urine alone is not sufficient to make the diagnosis of a UTI and can usually be treated by:

- Drinking more (dilution of the urine) and
- Performing an extra catheter (emptying the bladder more frequently) or
- Occasionally by using medications that prevent bacteria to stick to the bladder wall.

Only when these strategies have not worked and the person becomes ill are antibiotics used.

If antibiotics are given unnecessarily, a resistance against the more common antibiotics will develop. If an infection is multi-resistant it can only be treated successfully with intravenous antibiotics

**UTI’s only need treatment with antibiotics when they cause the person living with Spina Bifida to be sick (symptomatic UTI).**

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**You can find further information about bladder management and Spina Bifida at:**

- The American Spina Bifida Association has a series of useful fact sheets and web based material. Download for free from [www.spinabifidaassociation.org](http://www.spinabifidaassociation.org).
- The National continence helpline is 1800 33 00 66.
- Bladder information at [www.eric.org.uk](http://www.eric.org.uk).
- The National Public Toilet Map details accessible bathrooms and has information for how you can apply for a MLAK (Masters’ locksmiths association key). It is a specially designed key to allow you 24 hour access to accessible public toilets [www.toiletmap.gov.au](http://www.toiletmap.gov.au).

**Remember:**

- Drinking water regularly is important for good bladder health.
- Empty the bladder regularly.
- The clinic nurse is available for advice, support and education with catheterising techniques.
- It is important to stay clean and dry.
- Speak to a health professional when the urine changes colour, becomes cloudy or has developed a strong smell.
- Only treat symptomatic UTI’s with antibiotics.