



# Bladder Care after Spinal Cord Injury

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Safe & compassionate care,

every time

# Why do we need to 'manage' bladders?

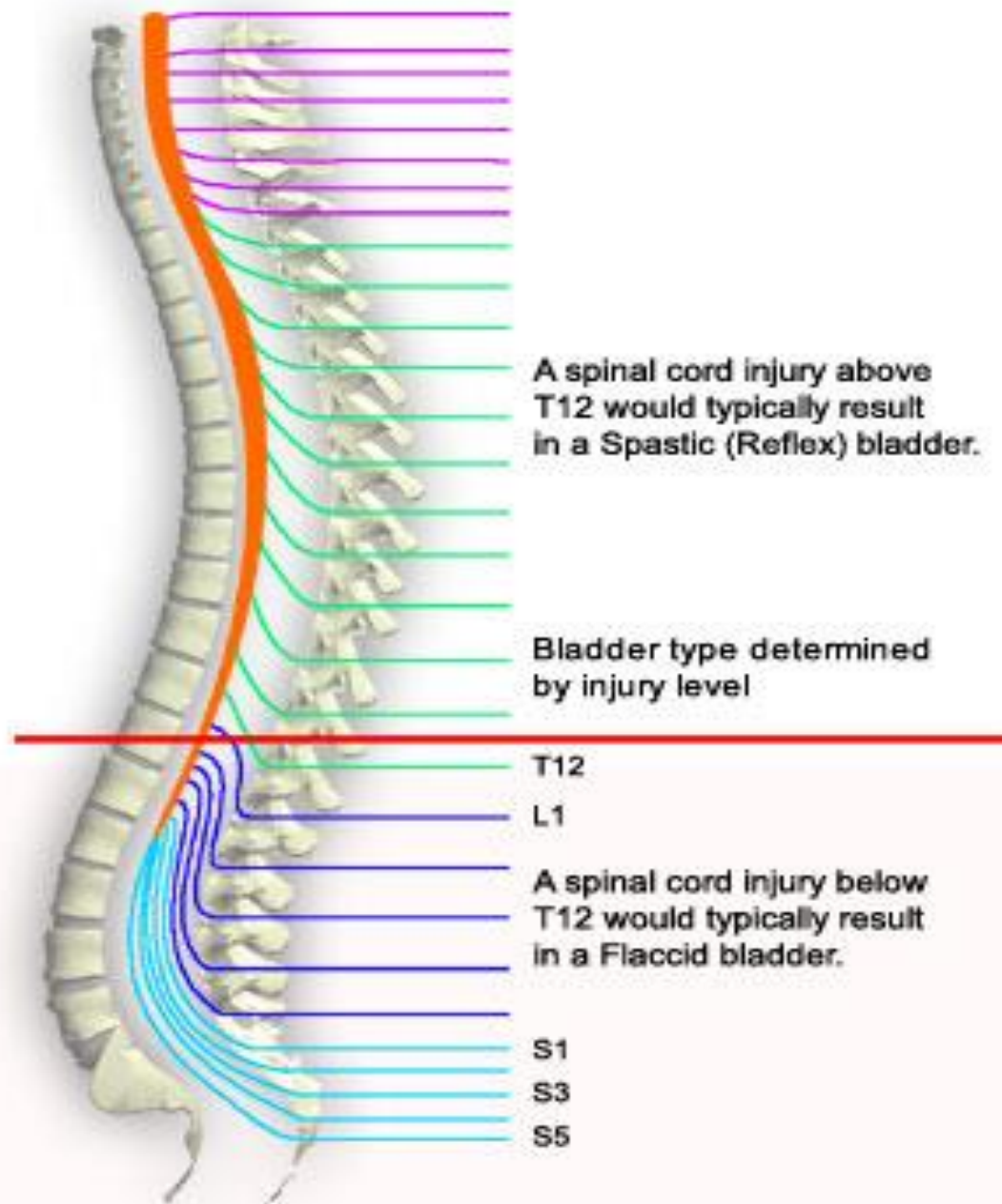
After spinal cord injury, due to the location of the nerve control of the bladder originating in the sacral nerves (S2-S4) and then running down to the cauda equina (horse's tail) below the cord itself, it is likely that most spinal patients will have some form of altered bladder control.

This means that we need to assist and manage the bladder:-

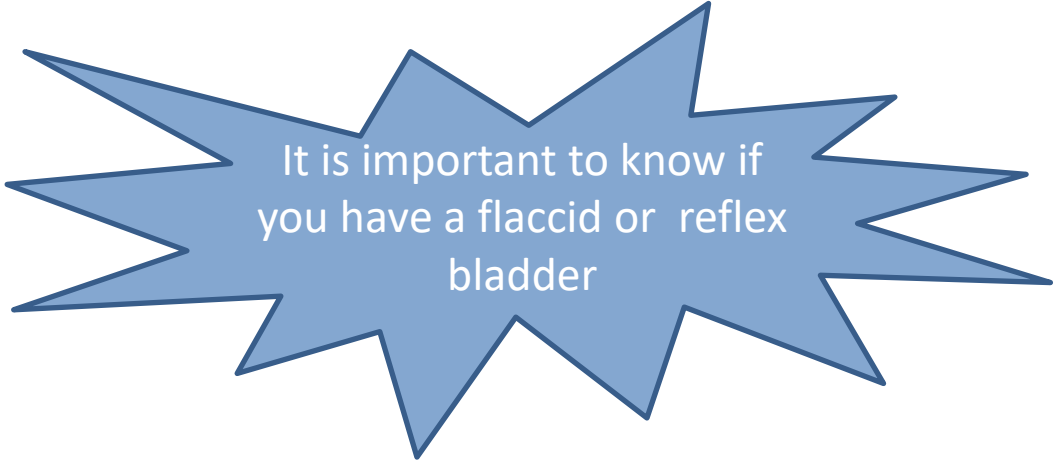
- To protect the kidneys and prevent complications, including kidney damage, infections and stone formation.
- To establish a reliable way of remaining dry and preserving and restoring positive body image.
- To establish a regular pattern of bladder emptying.

# How the bladder works

- **Urine is produced by the kidneys** as a result of filtering the blood, removing waste products and excess water.
  - It mainly consists of excess water and salts that are extracted from the bloodstream by the kidneys.
- **It then drains to the bladder** via two tubes called the ureters, one from each kidney.
- **The bladder acts as a muscular reservoir** and stores the urine until it is passed.
- **Normally the bladder expands gently as it fills**, sending the brain a message in good time to look for an appropriate time and place for the process of emptying.
- **Then the brain sends two signals:**
  - one to the muscles of the bladder wall (detrusor) to contract and
  - the other to the outlet valve (sphincter) to open,
  - and the bladder squeezes the urine out.
- **The bladder relaxes again for the process of refilling**



# After spinal cord injury



It is important to know if you have a flaccid or reflex bladder

- Due to damage to the spinal cord, **the nerves are no longer in communication with the brain**, hence the messages cannot get through.
- The bladder continues to fill as before, but **the awareness that your bladder is full, and ability to control the flow of urine, has been altered.**
- The extent of the loss depends on the level and completeness of the injury:
  - **If your injury is T12 or above**, you usually have what is called a reflex bladder.
  - **With an injury below T12**, you will usually have a flaccid bladder.
- “Incomplete injuries” are people who have movement and/or sensation below their lesion
  - This may not be useful or it could be nearly normal.
- Central cord syndrome – good legs, poor/no hand function

# BLADDER MANAGEMENT depends on:

## Assessment

- Level of injury
- Completeness
- Gender and age
- Hand function
- Ability/mobility
- Lifestyle
- Employment
- Cognition
- Memory

## Patient education & teaching

- DVD
- Leaflets
- Peer patients
- Treating team
- Resources
- Equipment
- Assess and re assess
- Goal planning

## Patient choice



# URINARY SHEATHS



There are two main types of sheath:

- Self adhesive and
- Two piece systems which are non adhesive sheaths with a double-sided strip which goes underneath the sheath to hold it in place

**Correct fit is paramount:**

- If the sheath is too tight, it may cause penile sores
- If too loose, it will fall off

**Always measure first**

**Always follow the directions you were given**



# INTERMITTENT CATHETERS

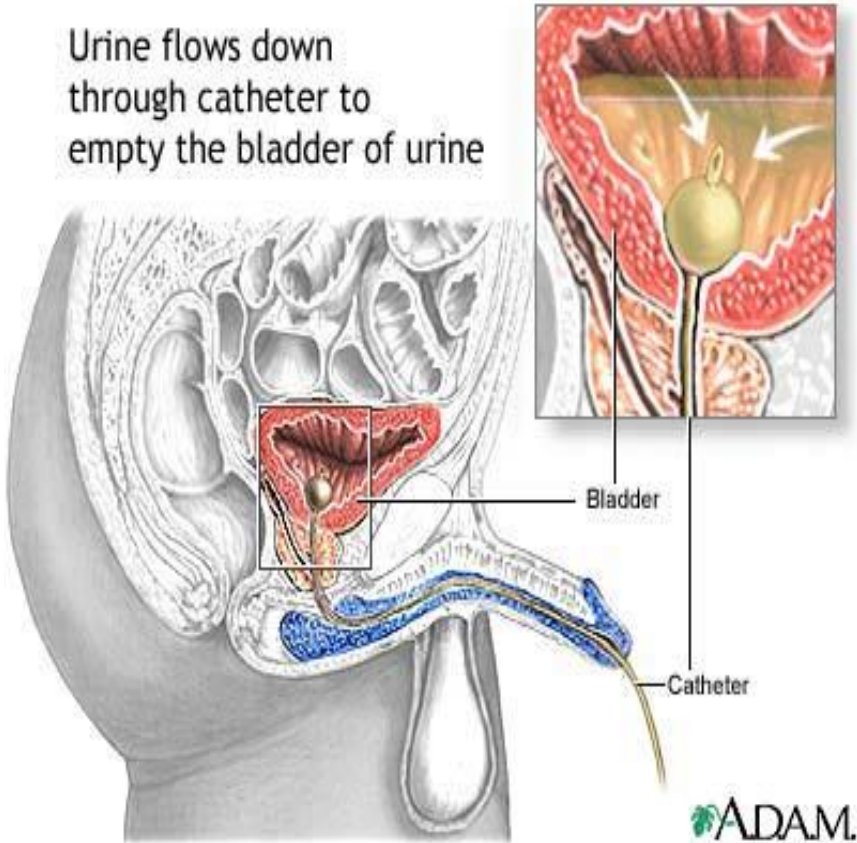


# Using intermittent catheters

- ❑ This method mimics the normal pattern of passing urine:
  - The bladder fills and is emptied at regular intervals
- ❑ It involves emptying the bladder at regular times, according to fluid intake, by passing a catheter
- ❑ A catheter is passed via the urethra into the bladder to drain out the urine; the catheter is then removed
  - The catheter can be passed while on the bed, sitting in the wheelchair or over the toilet
- ❑ Catheterisation may need to be performed at more regular intervals if increased fluids are taken

# INDWELLING CATHETERS

Urine flows down through catheter to empty the bladder of urine



Urethral Catheter



Supra Pubic

# Using an indwelling catheter

- ❑ The catheter is inserted in one of two ways:
  - either through the urethra
  - or via a small surgical incision in the abdomen into the bladder.  
This is called the supra pubic site
- ❑ The catheter remains in place at all times to drain urine from the bladder and is attached to a leg and/or night bag.
- ❑ The main disadvantage to catheter drainage is that there is a foreign body in the bladder, which can increase the chance of infection or cancer
  - a high standard of hygiene needs to be maintained plus regular follow up in SPOP
- ❑ A Catheter Valve/flip flow (on advice from your spinal consultant/ urologist) may be attached in between the end of the catheter and urinary drainage bag:
  - It has a tap which enables the user to stop the continuous flow of urine, allowing the bladder to fill, thus maintaining bladder capacity and strength
  - The valve is then opened at regular intervals throughout the day to allow the bladder to empty
  - Usually a night bag is attached to the valve at night, so the bladder can drain freely.

# Using an indwelling catheter

Key things to remember:

**It is essential that the bladder is emptied regularly and as completely as possible (preferably every 3-4 hours during waking hours)**

**Aim to change your catheter every 4-6 weeks**

**Good hygiene procedures must be carried out by both you and your carer**

# Make sure you avoid complications like these by managing your bladder

- Blocked catheter
- Autonomic Dysreflexia
- Allergy
- Inserted in Urethra causing trauma, false passages
- Bypassing
- UTI
- Debris
- Skin problems (blisters, pressure sores, erosion)
- Orchitis (swollen testes)
- Bladder cancer

# How to prevent complications

- Drink 2-3 Litres fluid every 24 hours
- Regular bladder emptying
- Avoid blocked catheters and constipation
- Ensure high standards of cleanliness when caring for all urinary equipment
- Regular reviews - to prevent kidney damage

# I'm getting wet – why?

- Is your catheter due to be changed/blocked?
- Are you constipated?
- Have you stopped taking bladder tablets?
- Is Botox wearing off?
- Have you got a UTI?





# Signs of Urinary Tract Infections

- Offensive smelly urine
- Cloudy or “dirty” urine
- Feeling Unwell – feels like flu
- Difficulty in passing urine
- Wanting to pass more/getting wet/leaking or bypassing
- Sweating
- Headaches
- Shakes/ rigors
- Increased spasms
- High temperature
- Pain – in bladder or above level
- Blood In Urine



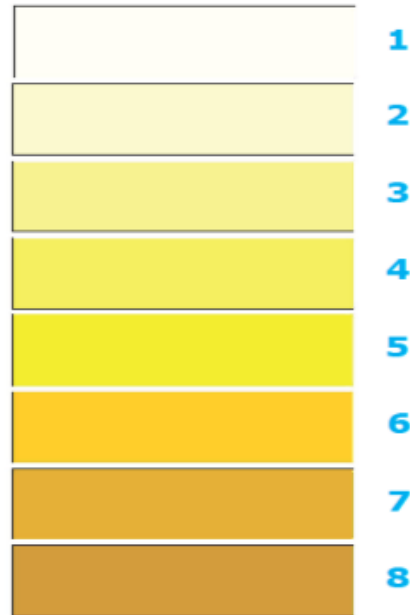
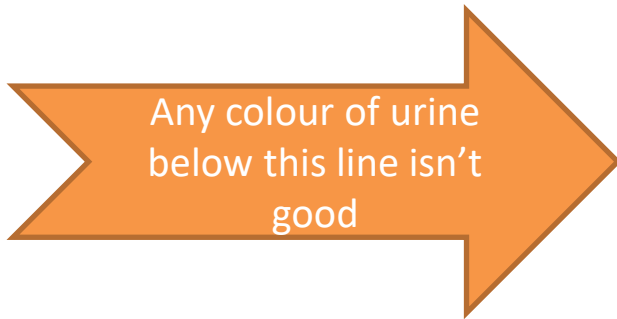
# Treatment of UTI's

- ✓ Increase fluid intake in an attempt to flush out the bacteria
- ✓ Empty your bladder more frequently
- ✓ Try increasing urine acidity eg cranberry capsules, vitamin C
- ✓ Antibiotics may need to be taken to resolve infection if you are symptomatic; a doctor will prescribe these.  
It is important to complete the course of antibiotics

## If it persists:

- Obtain a urine specimen and give it to your district nurse or doctor for testing
  - Always keep a spare empty urine specimen at home
  - Make sure you know how to take a sample before discharge

# Healthy pee is 1 to 3, 4 to 8 you must hydrate!



Call the Hydration line on 01622 834834, email [hydrate@waterforwork.co.uk](mailto:hydrate@waterforwork.co.uk) or visit [waterforworkandhome.co.uk](http://waterforworkandhome.co.uk)

# It's not always about "now"

- Bladder management can change throughout the life of a spinal cord injured patient.
- What is important is that correct bladder management is vital in order to minimise kidney complications and sepsis in the future.

Regular follow up is absolutely  
necessary!



## FOLLOW UP ACTIONS:

- Spinal cord injured patients may develop life threatening kidney and bladder complications without knowing it:
  - **It is therefore essential that the urinary tract is regularly assessed, initially each year.**
- Various x-ray examinations (e.g. Ultrasound, KUB, MAG 3 Renogram), urine and blood tests will detect early signs of damage.
  - **It is important to take note of when the last renal check up took place**
- Things change all the time:
  - **Keep yourself updated with new equipment/gadgets, as anything can make your life easier, like the Radar Key or a Uri-bag**
- Spinal Outpatient (SPOP) at Stoke Mandeville Hospital is available to talk things through if you have any concerns, after calling your GP first
  - **Please refer to SPOP section for more details**

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