Bladder Management After Spinal Cord Injury

The Urinary System

- Involves the kidneys, ureters, bladder and the urethra
- Kidneys filter the blood removing waste products
- Urine continues to travel thru the ureters
- Urine travels to the bladder
- Bladder holds the urine until ready to void
- Muscle of bladder contracts
- Process of urination begins when the sphincter opens allowing urine to pass thru the urethra

Changes Following Spinal Cord Injury

- Nerve impulses from the bladder may not tell your brain the bladder is full.
- Changes in bladder function following spinal cord injury are referred to as “Neurogenic Bladder.”

Hyperreflexic Bladder

- Also known as overactive, reflex, or spastic bladder
- Common with spinal cord injury above the sacral level
- Bladder will usually hold less urine after a spinal cord injury
- Bladder may not empty with each contraction
- Frequently release smaller amounts when urinating

Flaccid or Areflexic Bladder

- Bladder muscle is unable to contract and relax
- Risk of bladder overstretching
- Bladder overfills resulting in a spilling over of urine
- Common with a spinal cord injury to the caude’ equine (spinal nerves in the sacral area of the spinal cord).
How to Manage Your Bladder After a Spinal Cord Injury

- Primary goal is to prevent kidney damage
- Secondary goal is to avoid incontinence of urine
- Need to have established a good bowel program to prevent constipation, which will effect bladder emptying, leading to risk for urinary tract infection
- With incomplete spinal cord injury, possible to regain voluntary control of the bladder
- With complete injury will need to establish a full bladder management program
- Bladder management following complete spinal cord injury
- Bladder must be emptied completely and regularly
- If unable to urinate, you will be required to intermittently catheterize or continuously void via a indwelling catheter

What is Intermittent Catheterization?

- Inserting a small tube into the bladder to drain urine
- Required to do several times a day
- Also known as ICP (intermittent catheterization)
- Goal is to prevent overstretching of the bladder muscle
- Requires catheterizing at least four times a day

What is a Indwelling Catheter

- For continuous drainage from the bladder to the urethra via a tube to a drainage bag which collects the urine is known as a foley catheter
- A suprapubic catheter is a surgical procedure where a catheter is inserted into the bladder thru the skin of the lower abdomen
- At the tip of both a foley catheter and a suprapubic catheter, a balloon is inflated with normal saline solution to hold the catheter in place

How to Avoid Urinary Tract Infections

- Drink fluids
- Empty bladder completely
- Maintain a good bowel program
Signs and Symptoms of Urinary Tract Infections

- Chills
- Blood in urine, also known as hematuria
- Increased frequency of urinating
- Cloudy, thick urine with a foul odor
- Temperature elevation
- Burning when urinating
- Autonomic Dysreflexia which is elevation of blood pressure, headache with a spinal cord injury T6 and above

What To Do If You Develop a Urinary Tract Infection

- Have your urine tested (UA & CS)
- Increase fluids
- Take antibiotics as ordered by your MD. Finish as prescribed.
- May require an indwelling catheter
- Get your rest
- May require a re-evaluation of your bladder program

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