

RANCHO LOS AMIGOS
NATIONAL REHABILITATION CENTER



Bowel and Bladder Management After SCI

March 11, 2023

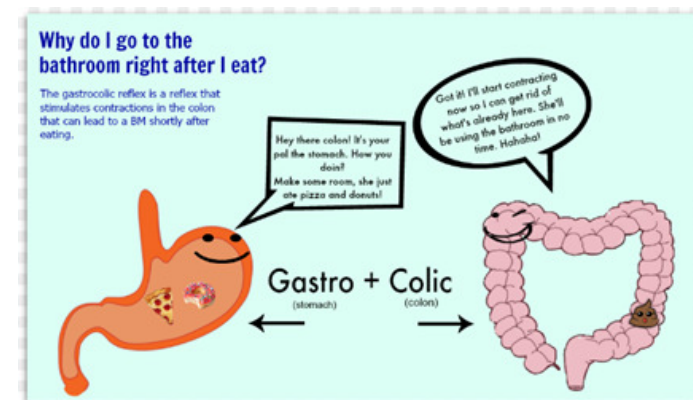
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Learning Objectives

- ❖ Describe types of neurogenic bladder and bowel with the SCI clients
- ❖ Identify required assessment to manage neurogenic bowel and bladder
- ❖ Describe treatment options to manage a neurogenic bowel and bladder
- ❖ Describe interdisciplinary involvement to manage bowel and bladder
- ❖ Identify risk of improper bowel and bladder management for the SCI population





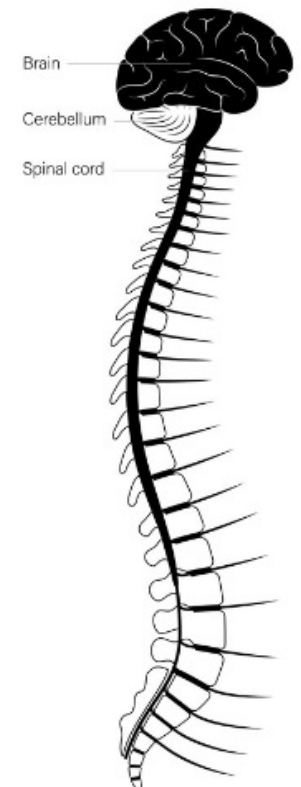
Introduction

What is Neurogenic Bowel and Bladder

A spinal Cord injury sometimes interrupts communication between the brain and the nerves in the spinal cord that controls bowel and bladder function.

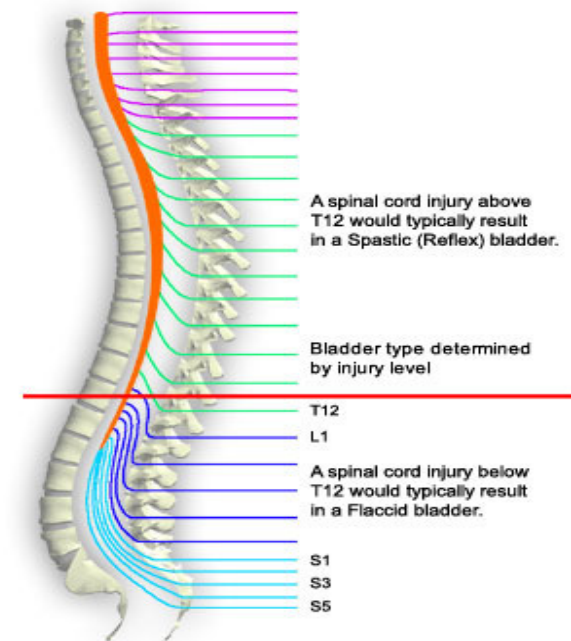
A neurogenic bowel and bladder is when a problem in the brain, spinal cord, or central nervous system makes the bowel/bladder lose control. For the bowel, patients either evacuate too much, too little or they might not be able to evacuate at all, and evacuation is not at a predictable times. For the bladder, patients might not urinate at all, might urinate but not fully empty, and voiding might not be at a predictable times.

(Vaughn, 2019)



Assessment After SCI

- q Level of injury
- q Complete or incomplete
- q Voluntary control
- q Saddle sensation
- q Bulbo-Cavernous (BC) Reflex





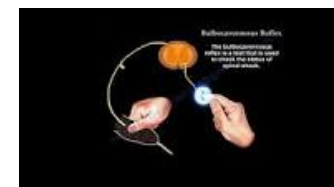
Assessment After SCI

Reflexic

- Lesions T12 and above
- Complete or incomplete injury
- Voluntary control absent
- Saddle sensation impaired or absent
- Bulbo-Cavernous (BC) Reflex, hyper-active
(Negative in spinal shock)

Areflexic

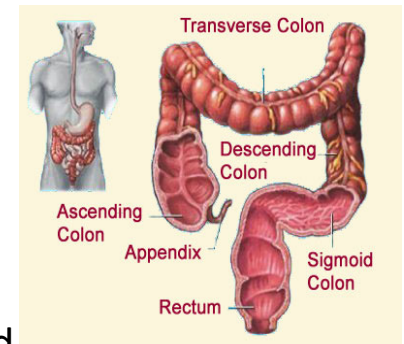
- Lesions below T12
- Complete or incomplete injury
- No spinal reflex
- Voluntary control absent
- Saddle sensation absent
- Bulbo-Cavernous reflex absent





Normal Bowel Function

- ❑ The bowel is part of the digestive system
- ❑ Is designed to help the body absorb nutrients and fluids from the foods we eat and drink
- ❑ After taking out everything the body needs, the bowel then expels the waste product
- ❑ Normally functioning bowel can store or expel feces depending on whether circumstances are appropriate for defecation
- ❑ Involvement: Brain & SCI, Internal sphincter (involuntary), External sphincter (voluntary), sacral reflex arc, pelvic floor musculature





After SCI

- ❑ Patients may not have sensation and/or motor control of their bowels.
- ❑ Initial assessment:
 - Bowel accidents
 - Constipation
 - Diarrhea
 - Sensation
 - Motor function
 - Comorbidities
 - Bowel Hx
 - Medications





Management of Neurogenic Bowel

Reflexic Bowel

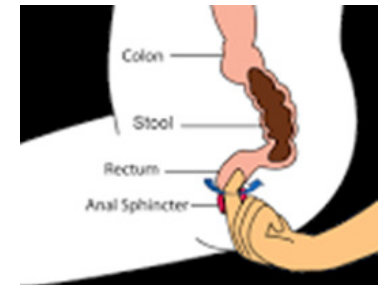
Bowel program:

- Suppositories
(Dulcolax/Glyceryn)
- Digital stimulation
- Manual evacuation
- Medication: Colace,
Miralax, Senokat,
Metamucil
- Scheduled time
- Gastro colic reflex
- Diet
- Activity/position

- ❖ The goal of a bowel program is to provide predictable & effective bowel elimination
- ❖ Bowel programs should be revised as needed throughout the continuum of care
- ❖ Maintain bowel care regimen for at least 3 days prior to considering possible modifications

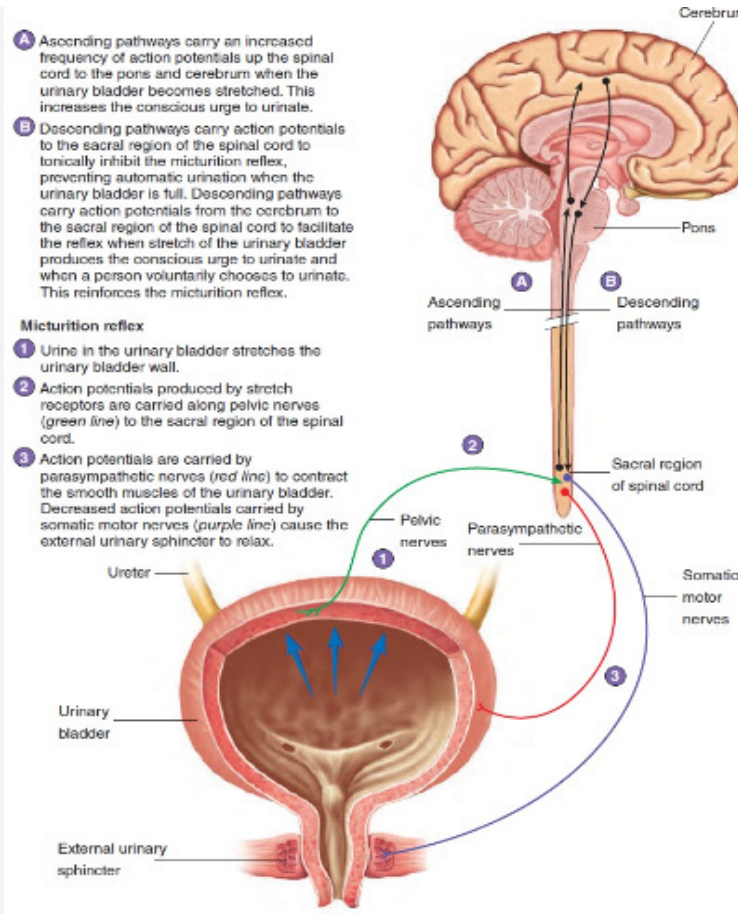
Non-Reflexic Bowel

- On admission, all SCI patients start bowel program with suppositories
- Manual Evacuation 1-2 times/day
- Stool needs to stay firm
- Schedule time
- Diet
- Activity/Position





Normal Bladder Function



PROCESS Figure 18.19 **APR** Micturition Reflex



After SCI

- ❑ Patients may not have sensation and/or motor control of their bladder.
- ❑ Initial assessment:
 - Foley Catheter
 - Sensation
 - Motor function
 - Bladder Hx
 - Comorbidities
 - Medication

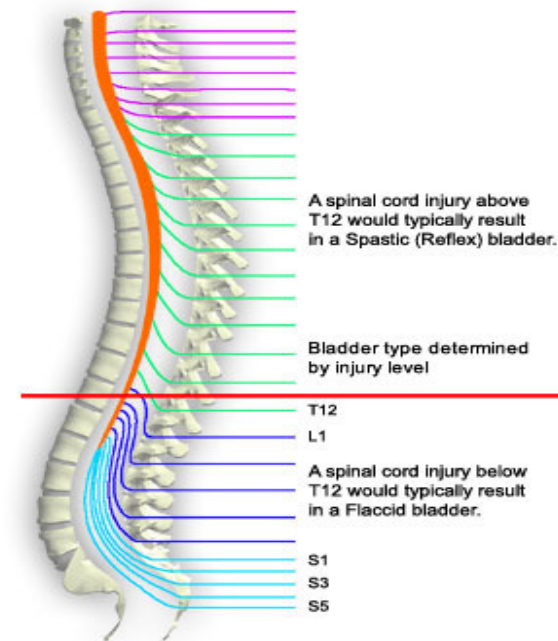


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Neurogenic Bladder Management

Reflexic Bladder

- Foley catheter removal
- Intermittent Catheterization (IC) q 4-6hrs
- Fluid restriction to keep IC volumes <500mls
- Incontinence causes:
 - UTI
 - Overflow
 - Reflexes
 - Reflex voiding
 - Increase IC intervals
 - Bladder scan, post void residual
- Patient's preference
- Medications
- Patient education
- Pros and Cons

Non-reflexic Bladder

- Foley Catheter removal
- Intermittent Catheterization (IC) q 4-6hrs
- Fluid restriction to keep IC volumes <500mls
- Incontinence causes:
 - Overflow
 - UTI
 - Stress incontinence
- Pros and Cons

Goal

Empty bladder appropriately to prevent bladder accidents and long-term bladder complications



References

Franklin, B. Gandhi, T. Bates, D. Huancahuari, N. Morris, C. Pearson, M. Bass, M. Goralnick (2020). Impact of multidisciplinary team huddles on patient safety: a systematic review and proposed Taxonomy. Downloaded from <http://qualitysafety.bmj.com>

Tayyeb, M.; Prasanna, T. (2021). Neurogenic Bladder. Retrieved from NCBI Bookshelf, on 03.2022. www.ncbi.nlm.nih.gov/books/NBK560617/

Vaughn, S. (2019) The Specialty Practice of Rehabilitation Nursing (Eight Edition). Interprofessional team Approach 29-38. Bowel and Bladder Care 191-222.



תודה
Dankie Gracias
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Ďakujeme Vielen Dank Paldies
Kiitos Täname teid 谢谢
Thank You Tak
感謝您 Obrigado Teşekkür Ederiz
감사합니다
Σας ευχαριστούμε ขอบคุณ
Bedankt Děkujeme vám
ありがとうございます
Tack