Neurogenic Bowel: Management

- **Spinal cord injury (SCI)** usually causes loss of control over bowel movements and loss of feeling in the bowels and rectum. This is called **neurogenic bowel** because these problems are due to damage to nerves in the spinal cord that control bowel function.
- Bowel problems vary from person to person, and the type of bowel problem you have depends on your level and completeness of injury.
- If you have an incomplete injury, you may have some feeling and control over your bowels.

Reflexive or spastic bowel

This is the most common type of bowel dysfunction after SCI. It occurs in people who have **Upper Motor Neuron (UMN)** injuries (usually thoracic and cervical injuries, T11-12 and above).

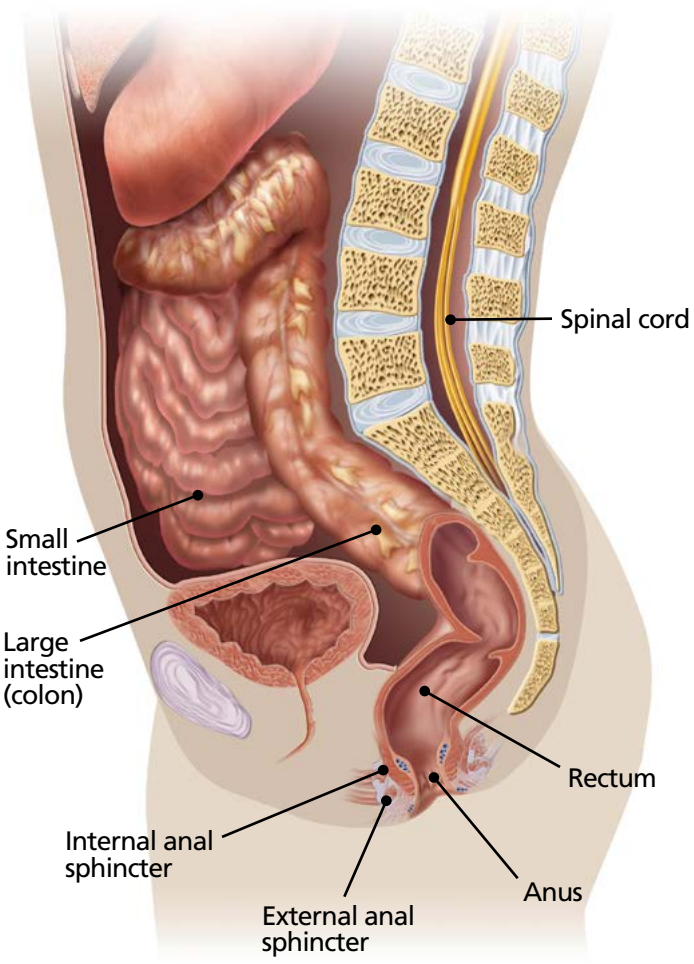
- Stool moves slowly through the bowel, which can cause constipation.
- You do not have control over your internal and external anal sphincters (a sphincter is a circular muscle that squeezes and relaxes in order to close or open a passage to let through fluids or solids).
- You may not be able to feel when your rectum is full and you need to empty your bowels.
- The anal sphincter muscle remains tight but will still open reflexively (automatically) when the rectum is full. This means your bowels will empty and stool will come out, whether you want it to or not.
- To control timing of a bowel movement, you can trigger the anal sphincter to open by stimulating it with a finger or device.

Areflexic or flaccid (slack or floppy) bowel

This is a less common type of bowel dysfunction after SCI. It occurs in people with **Lower Motor Neuron (LMN)** injuries (usually lumbar and sacral injuries).

- Sphincters have decreased tone (less tightness than normal) and stool can leak out.
- Stool moves slowly through the bowel, which can cause constipation.

Bowel Anatomy



Bowel management goals

- Avoid bowel accidents.
- Empty bowels regularly and at time of your choosing.
- Avoid hemorrhoids, fissures, constipation and other problems.
- Keep bowel program as short as possible.

Bowel program

Most people need to adopt a new safe and effective method of emptying their bowels. The term "bowel program" refers to the method a person uses to accomplish this task. Your bowel program will depend on your injury, preferences, and life circumstances. Even people who have the exact same injury may need to use different methods.

Different parts of the bowel program include:

- **Diet** — making sure your diet supports healthy and regular bowel movements. Fiber rich foods (fruits, vegetables, whole grain, bran, beans and nuts) are helpful in producing a soft formed stool and moving stool through the colon.
- **Fluids** — drinking enough fluids keeps stools soft and moving along.
- **Activity and Exercise**—being physically active helps move the stool through the colon and avoid constipation.
- **Medication**s to keep stool soft and the stools move through your bowel. Examples are chemical rectal stimulates (suppositories, mini-enemas), softeners and bulking agents(docusate, fiber) and laxatives. Rectal stimulants are often required to manage a reflexic bowel effectively.
- **Schedule:** timing and frequency; for example, every other day after breakfast or dinner
- **Method:** procedure for initiating a bowel movement (equipment, location and assistive techniques) like abdominal massage or positioning.

Making changes to your bowel program

If you are making a change to your bowel program or introducing something new, maintain the change for 5 to 7 days to see if things improve before changing anything else.

Other bowel management methods

When the usual approaches have not been successful, talk to your provider about other options such as transanal irrigation, colostomy surgery, or Malone Antegrade Continence Enema (ACE or MACE) procedure.

Changes over time

With longer time since injury and advancing age, problems such as constipation, hemorrhoids and fissures (tears) become more common. You may need to change your bowel care routine as you get older.

Differences in bowel care for areflexic or reflexic

Bowel Care	Areflexic Bowels Lower Motor Neuron (LMN) injuries	Reflexic Bowels Upper Motor Neuron (UMN) injuries
Rectal Stimulation	Manual removal of stool	Suppositories, Mini-Enemas, Digital Stimulation
Consistency of stool	Try to keep stool firm to prevent bowel accidents	Try to keep stool soft to allow easy passage
Frequency of bowel care	One to three times daily are needed to avoid accidents.	Daily or every other day
Assistive techniques	Abdominal massage (see video link below); warm fluids; leaning forward; abdominal binder. Avoid straining.	Warm fluids or food, abdominal massage, abdominal binder

Resources:

For patients:

- Video about Bowel Management after SCI at https://www.youtube.com/watch?v=uNfSJhZZZ34
- Video about abdominal massage at https://www.youtube.com/watch?v=N39GIWquhWg

For health care providers:

Krassioukov A, Eng J, Claxton G et al. (2010). *Neurogenic bowel management after spinal cord injury: A systematic review of the evidence*. Spinal Cord. 48(10): 718-733.

Consortium for Spinal Cord Medicine. (1998). *Neurogenic Bowel Management in Adults with Spinal Cord Injury. Washington*, D.C.: Paralyzed Veterans of America.
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Authors:
Cathy Warms PhD, RN, CRRN
Rosemary Buchmeier, RN, CRRN
UW Medicine SCI Core Group

Maria Regina Reyes, MD- Editor/Project Director

The **SCI Empowerment Project** is funded by a grant from the **Craig H. Neilsen Foundation** to the Department of Rehabilitation Medicine, University of Washington, Seattle, WA.