

Bowel Dysfunction and Management Following Spinal Cord Injury

What is Bowel Dysfunction?

An injury to the spinal cord and/or cauda equina can result in neural damage affecting sensation to and control of the rectum, anus, or sphincters, and a reduced activity of the intestines affecting regular bowel evacuation – a cluster of issues characterized in people with SCI as Neurogenic Bowel Dysfunction (NBD) ([Leduc et al. 2002](#); [Gondim et al. 2001](#); [Menter et al. 1997](#); [Rajendran et al. 1992](#); [Lynch & Frizelle 2006](#); [Fajardo et al. 2003](#)).

Common problems of the gastrointestinal tract associated with NBD include:

- Constipation: bowel evacuation less than 3 times per week and/or incomplete bowel emptying due to hard, dry feces ([Johns et al. 2021](#); [Faaborg et al. 2008](#); [Finnerup et al. 2008](#); [Lynch et al. 2000](#))
- Fecal incontinence: unintentional leaking from the bowels ([Johns et al. 2021](#))
- Fecal impaction ([Faaborg et al. 2008](#); [Finnerup et al. 2008](#); [Lynch et al. 2000](#)): hard, dry stool gets trapped in the anus or rectum
- Abdominal pain and bloating ([Johns et al. 2021](#); [Correa & Rotter 2000](#))
- Anorectal pain ([Johns et al. 2021](#))
- Hemorrhoids: swollen veins around the anus ([Correa & Rotter 2000](#))
- Rectal prolapse: the rectum slips through the anus ([Correa & Rotter 2000](#)).

What Methods of Bowel Management are There?

“Bowel program” or “bowel routine” refers to the overall management program that someone with SCI may use to ensure their bowels continue to be healthy and functional. Activities that are part of a bowel routine may include nutrition, fluid intake, timing, rectal stimulation, irrigation, abdominal massage and/or adjunctive medications. “Bowel care” refers to the process of facilitating bowel evacuation either in a hospital/health care setting or outside.

Many techniques for your bowel program or bowel routine can be used, including interventions ranging from conservative management techniques to surgical procedures to assistive devices.

[Conservative bowel management](#) will usually employ a few techniques in an individualized program or routine, and it is implied that these techniques are added in a stepwise fashion, that is, from least to most invasive. Techniques may include dietary modifications especially re: fibre and fluid, digital rectal stimulation, digital removal of stool, abdominal massage, stimulation of the gastrocolic reflex, and use of oral or rectal medications (suppositories, enemas). Such a program will usually be performed on a daily or alternate day basis and until stool consistency is regulated and more ideal, depending on the needs of the individual.

[Colostomy and ileostomy](#) are generally considered after conservative methods fail. Other motives for choosing surgical interventions may be because they are less time consuming, are appropriate for severe constipation or fecal impaction, decrease cases of autonomic dysreflexia or pain, and avoid diseases or contamination of existing pressure injuries near the anus.

Many studies support colostomy and ileostomy for its ability to simplify bowel routines (reduce the time spent on bowel care, increase independence, and decrease trips to the hospital due to gastrointestinal problems).

To help people with SCI succeed in managing their bowel problems, some [assistive devices](#) are available, including modified toilet seats, standing tables, assisted ambulation training, and anorectal biofeedback. They can be used as part of a bowel care routine, though there is limited research in this area.

What are the Limitations of Bowel Management Techniques?

The efficacy of a bowel management technique relies on many factors. Factors such as diet and medication can be modified to optimize bowel care while other factors such as medications a person takes to manage other conditions of their SCI may be harder to change. Thus, a bowel care routine tailored to the individual and considering all aspects of their health will help avoid potential risks and maximize their effectiveness.

Furthermore, how well a bowel care technique works is dependent on how well the person with SCI follows their routine. Sticking to a planned time and frequency of bowel emptying can help train the bowels and result in more predictable bowel activity.

Annual evaluations of bowel management are also recommended by the [Consortium for Spinal Cord Medicine guidelines \(2020\)](#) and the [Multidisciplinary Association of Spinal Cord Injury Professionals guidelines \(MASCIP 2012\)](#). This is to determine whether changes to a bowel program are needed and to ensure that the program remains appropriate and effective for a person with SCI.