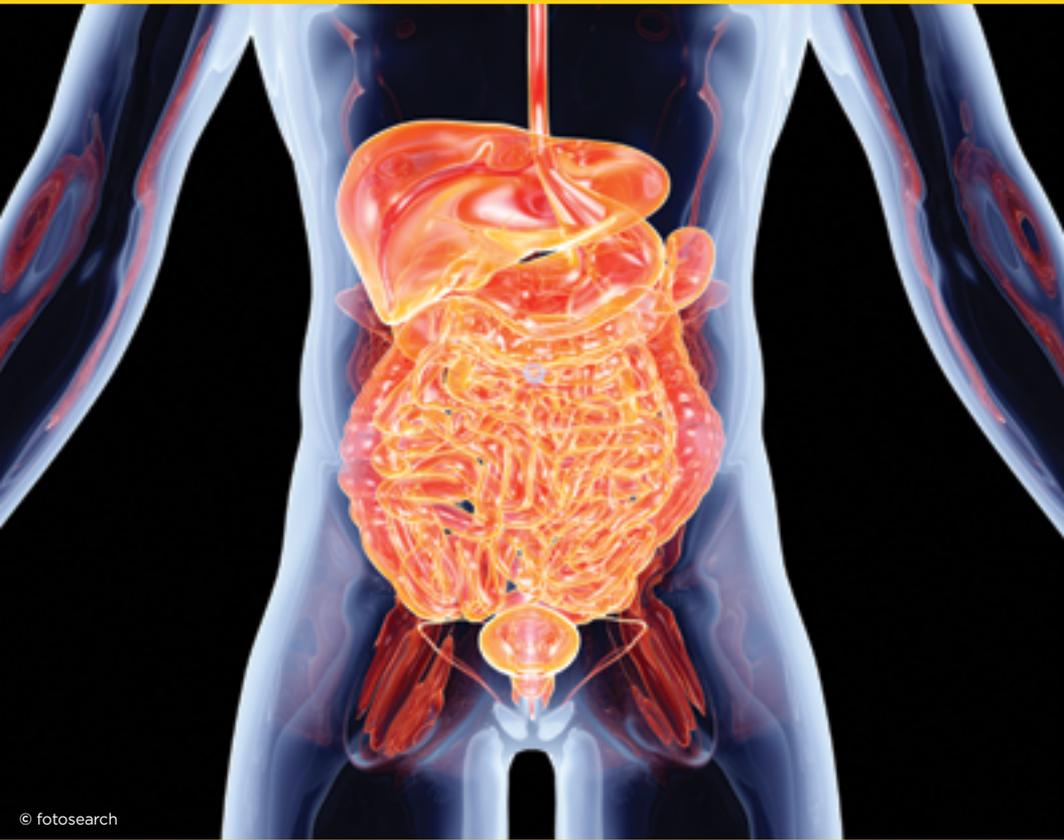


LIVING WITH PARALYSIS

# Bowel Management



© fotosearch



CHRISTOPHER & DANA  
REEVE FOUNDATION  
TODAY'S CARE. TOMORROW'S CURE.®

**This guide has been prepared based on scientific and professional literature. It is presented for the purpose of education and information; it should not be construed as medical diagnosis or treatment advice. Please consult a physician or appropriate healthcare provider for questions specific to your situation.**

**Credit: Editorial Consultant: Linda M. Schultz, PhD, CRRN**

---

## **Christopher & Dana Reeve Foundation**

**636 Morris Turnpike, Suite 3A  
Short Hills, NJ 07078  
(800) 539-7309 toll free  
(973) 379-2690 phone  
ChristopherReeve.org**

LIVING WITH PARALYSIS

# BOWEL MANAGEMENT

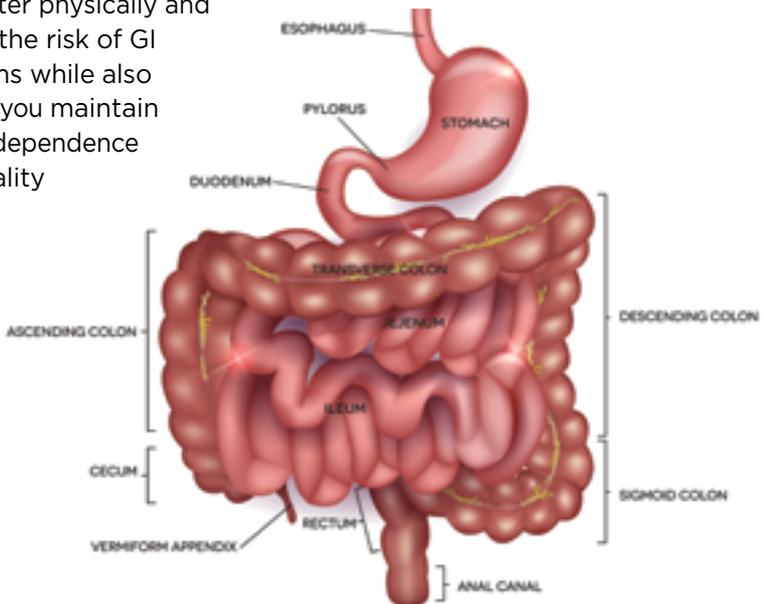


# CAN WE TALK ABOUT BOWEL MANAGEMENT?

*For most people, going to the bathroom is a routine part of daily life, often occurring at exactly the same time every day or two without much thought or effort. That's not the case, however, when you have a spinal cord injury (SCI). Most people with such injuries have some form of bowel dysfunction, called neurogenic bowel. It differs from person to person, but, basically, it means the nerves that control the bowel no longer work properly.*

Now bowel movements are something you have to not only think about, but plan and carve out time for. Without proper bowel management, you are subject to a host of complications. These can include issues in the lower gastrointestinal (GI) tract such as hemorrhoids, diarrhea, constipation, and fecal incontinence, among others. Even issues in the upper GI tract can occur including nausea, heartburn and stomach ulcers. Indeed, such problems lead to hospitalizations for one in five people with long-term spinal cord injuries and can even cause death.

Once you learn to make bowel management a regular part of your routine, it will feel completely natural. Most importantly, it will help you feel better physically and reduce the risk of GI problems while also helping you maintain your independence and quality of life.



# TABLE OF CONTENTS

- 1** Understanding the Digestive System
- 2** Neurogenic Bowel Types  
Autonomic Dysreflexia
- 3** Maintaining a Healthy Bowel  
Diet
- 4** Fluid  
Physical Activity
- 5** Your Bowel Management Program
- 6** Timing Your Bowel Management  
Hygiene  
Components of Bowel Management
- 8** Digital Stimulation Adaptive Equipment
- 9** Beware These Medications  
When Problems Arise  
Constipation  
Diarrhea
- 10** Mucous Accidents  
Bloody Stool
- 11** Pain  
Pressure Injury  
Ileus
- 12** Should I Consider a Colostomy?
- 13** Resources

## UNDERSTANDING THE DIGESTIVE SYSTEM

To understand the effect of your injury on your bowels, it is important to understand how the digestive system works. Think of the system as a long, twisting, one-way road from your mouth to your anus, where what goes in one end comes out the other, minus the nutrients your body needs to survive.

Digestion begins in your mouth, where your saliva immediately begins breaking down food for its passage through your body. The chewed food passes down the esophagus into the stomach, where the real work begins. There, bacteria in the gut together with stomach acid begin breaking down the roast beef sandwich you just ate. Strong muscles in the stomach and intestines then push the resulting mass, called chyme, into the intestines (aka colon) in a process called peristalsis.

In the small intestine, the chyme mixes with digestive juices from the liver, pancreas, and intestine. The carbohydrates, proteins, fat, vitamins and minerals from the chyme pass through the walls of the small intestine into the bloodstream and are carried to the rest of the body.

The rest—undigested parts of food and old cells from the GI tract lining—are pushed into the large intestine. It absorbs any water or remaining nutrients and turns the waste into stool. The stool is stored in the end of the large colon, called the rectum. The stool is kept in place by the anal sphincters, which close tightly in response to the stool until you manually relax them and have a bowel movement.

Nerves that connect the GI system to the brain and spinal cord and those that release substances in the GI tract in response to food, triggering the digestive process, are involved in the entire process. With a spinal cord injury, of course, the messages from some or all of those nerves may be blocked. Thus, you may not feel the need to defecate. Individuals with higher level injuries might not be able to hold stool but will frequently leak small amounts without emptying the bowel. Those with lower level injuries will hold stool without evacuation.

Peristalsis may also be affected, which can slow the movement of the colon leading to constipation and blockages.

## NEUROGENIC BOWEL TYPES

**There are two types of neurogenic bowel:**

**Upper motor neuron (UMN) bowel syndrome** – Also called reflexive bowel, is found in individuals with SCI above T12. UMN type is marked by the spontaneous expulsion of a small amount of stool. However, the sphincters stay tight, so it is difficult to release all the stool in the bowel. Thus, people with this type of bowel syndrome typically have small and frequent amounts of stool incontinence without emptying. Manually stimulating the internal and external sphincters in the rectum can trigger the internal sphincter to relax.

**Lower motor neuron (LMN) bowel syndrome** – Also called areflexic bowel, this type generally impacts people with injuries below T-12. The stool collects in the rectum until it is manually removed.

## AUTONOMIC DYSREFLEXIA

**Nurse Linda Says\*...Autonomic dysreflexia (AD) is a potentially life-threatening condition that mainly affects people with injuries at T-6 or higher. It is caused by an irritant below the level of injury, most often related to bladder or bowel function. This includes overdistended or irritated bowel, constipation, impaction, hemorrhoids, or anal infections. It is basically an overreaction of the autonomic nervous system that, because of your injury, the body can't regulate. This, in turn, leads to a spike in blood pressure that could cause a stroke.**

**Symptoms of AD include:**

- High blood pressure (20–30 mm/hg higher than your normal pressure)
- Pounding headache and flushed face
- Sweating above level of spinal injury
- Nasal stuffiness, nausea
- Pulse less than 60 beats per minute
- Goose bumps below level of spinal injury

\*Linda Schultz is a Clinical Nurse Educator who works with the Christopher & Dana Reeve Foundation

Adhering to a regular bowel program can help prevent AD. However, in some instances, the irritation of the bowel programs may also trigger AD.

AD is treated by quickly raising or having your head quickly raised to drop your blood pressure. The noxious stimulation should be immediately removed such as disimpacting the bowel.

## MAINTAINING A HEALTHY BOWEL

Diet, fluid consumption, and physical movement all play a role in a healthy bowel system.

### DIET

***Nurse Linda Says...*** *Food is also important in regulating bowel function. If a food gave you diarrhea before injury or disease, it will after. The same goes for foods that tend to make your body constipated. Helpful foods include those high in fiber, such as most fruits and vegetables (in moderation), whole grain bread and pasta, brown rice, bran, and beans. Try to avoid foods that can lead to constipation or diarrhea, including bananas, dairy, white bread, white potatoes, caffeine, or spicy foods.*

However, also keep in mind that you may react differently to different foods. Some people eat a banana to stimulate a bowel movement while others eat a banana to avoid diarrhea. Some find cheese constipating while others find the oil in cheese helps a bowel movement.

Fiber is important because it helps stool pass through your bowel. Some people need more than others. Start with your typical diet and adjust the amount of fiber (fruits and vegetables) to regulate your bowel program.

It's a good idea to keep a food diary for a few months to document what you eat and whether it is starch, vegetable, meat, fruit, dairy, or fat. Indicate the effect the foods have on your bowel program. This provides a good idea of what works and what doesn't in your bowel program.

## FLUID

It is important to get enough fluid. Start with your usual fluid routine and slowly add water to moisten your stool. Slowly means adding an additional 1/2 cup of water per week until you are well hydrated. Hydration can be checked by gently pulling up the skin on the back of your hand. When released, the skin should snap back into place. Make water, decaffeinated coffee, and herbal teas your drinks of choice.

***Nurse Linda Says...Drinking water is key because sugary, caffeinated, or other fluid additives can affect stool moving through the bowel resulting in constipation or diarrhea. Sugared drinks, for instance, can cause diarrhea while the dehydrating effects of caffeine and alcohol can dehydrate your bowel as well as your body.***

## PHYSICAL ACTIVITY

***Nurse Linda Says...An often overlooked treatment for bowel function is activity. This might be difficult to visualize with spinal cord injury. We know that walking stimulates the bowel to function more effectively. To mimic this activity, you still can stimulate the nerves and muscles of the abdomen by putting your legs and abdomen through range-of-motion exercises. The benefits are better bowel function, fewer urinary tract infections, reduced spasticity, and improved circulation. You can move your extremities and body yourself or have someone do it for you.***

Pressure releases can change the pressure in your abdomen, which can also help stimulate the bowels through activity or movement.

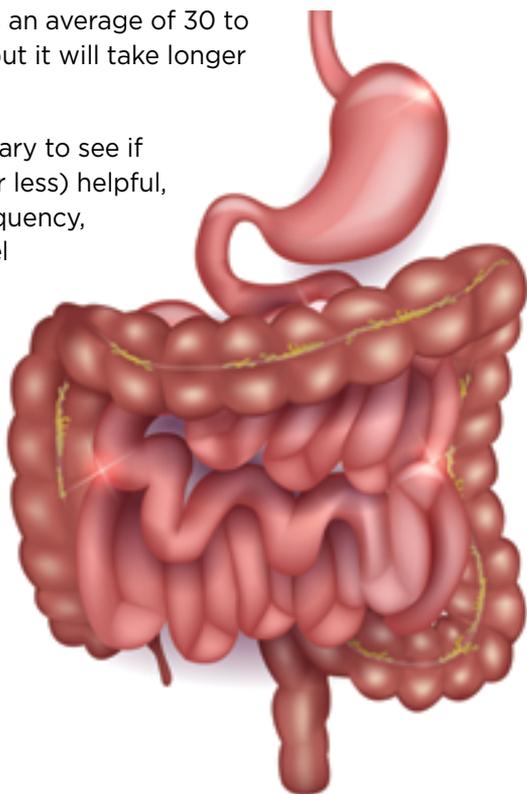
Functional electrical stimulation (FES) can also be used. This electrical stimulation affects the muscles of the legs and abdomen.

## YOUR BOWEL MANAGEMENT PROGRAM

The goal of any bowel management program is to ensure complete and predictable elimination to reduce the risk of incontinence, constipation, and other GI problems. You need to start a bowel management program immediately after your injury. Your nurse will help while you're in the hospital and rehabilitation. Once you're home, it's up to you and your caregiver to maintain your bowel program.

### A few things to keep in mind:

- Everyone's bowel program is unique.
- The bowel care program is a dynamic process; it will change as you move from the acute setting to post-acute care to home and as your physical condition changes and as you age.
- It may take months to figure out what works best for you.
- Bowel management takes an average of 30 to 60 minutes to complete but it will take longer for some people.
- Keep a food and bowel diary to see if certain foods are more (or less) helpful, as well as to track the frequency, type and amount of bowel movements and stool.



## TIMING YOUR BOWEL MANAGEMENT

- Schedule your bowel care routine at the same time every day. You might have developed this habit before your injury. Mornings are ideal because the bowel has rested all night. However, other times are okay as long as it works with your schedule.
- Eat and drink 20-30 minutes before bowel care to stimulate the digestive response (the gastrocolic reflex). A warm or hot drink is a good idea.
- Schedule bowel care at least once every two days.
- Take your time. Rushing will just make it more difficult to empty your bowels. If you have upper motor neuron bowel syndrome avoid straining. This can cause the sphincter to contract and hold in the stool.
- Position properly. Gravity can help. Sit as upright as you can and, if possible, use a properly fitting commode chair, or a Hoyer or ceiling lift sling with a cut out for toileting. Be sure the equipment you use has a pressure dispersing seat and backrest. If you are unable to sit, lie on your left side.

## HYGIENE

Good hygiene is critical for several reasons. First, because the greatest cause of urinary tract infections is contamination from the bowel, particularly in women. Second, because any stool left in the anal area could lead to skin breakdown.

## COMPONENTS OF BOWEL MANAGEMENT

**Digital stimulation** – This is exactly how it sounds. You or your care-giver insert a well lubricated, gloved index finger into the rectum and gently move it in a circular fashion to relax the external and internal sphincters, particularly the internal sphincter. Make sure whoever does the stimulation has short fingernails. It may take 1-2 minutes for the internal sphincter to relax. Wait five minutes before a second attempt if there are no results the first time. You may have to wait and repeat a few times.

Additional support for the bowel program can be obtained by using one or a combination of these products:

**Suppositories** – Suppositories work by drawing water into the rectum to soften stool and stimulating the nerve endings in the rectum to contract the bowel and push out the stool. The two main types are Dulcolax® and Magic Bullet®, both of which are based on the active ingredient bisacodyl. Magic Bullets® are said to be about twice as fast as the alternative. In children and older adults, your healthcare provider may recommend glycerin if the other alternatives are too strong and are leading to cramping and leakage.



**Key point:** *Insert the suppository against the bowel wall where it can dissolve and work by stimulating peristalsis or movement of the colon.*

**Stool softeners** – These work by increasing the amount of water drawn into the colon and by coating stool with a slippery covering. Stool softeners include Colace® or Doss.

**Bulk formers** – These make the stool bulkier and softer but may take a couple of days to work. Citrucel®, Metamucil® (use the sugar-free version of both), MiraLAX®, senna and psyllium are bulk formers.

**Mini-enema** – Only the mini-enema Enemeez®, which only stimulates the lower colon, is gentle enough to be used on a daily basis.

**Medication stimulants** – You may need over-the-counter or prescription medications to relieve constipation or diarrhea.

**Anti-diarrheals** – If you have diarrhea, try loperamide (Imodium®).

**Rectal bags** – which are applied over the rectum, can contain fecal incontinence and gas. They should be used only temporarily and infrequently. Rectal bags can lead to rectal breakdown, so good hygiene is critical.

*\*Laxatives and enemas are rarely used for regular bowel management. They are for problems such as impaction and ordered by a health care professional, not for general use at home. DO NOT use these products unless prescribed.*

**Enema** – An enema is used to inject water through the rectum into the bowel to flush out bowel movements. Full enemas are not recommended and should be used only if your healthcare provider recommends them for severe constipation. They can be too irritating to the bowel as well as cause autonomic dysreflexia.

**Stimulant laxatives** – These should be used on a short-term basis only and only if your healthcare provider prescribes them. They work by stimulating the muscles along the bowel to push the stool down and out. At times, bulk formers are identified as laxatives because they stimulate the bowel by increasing stool bulk, not by affecting the internal working of the bowel. Bulk formers are helpful; stimulant laxatives decrease the function of the bowel over time.

## DIGITAL STIMULATION ADAPTIVE EQUIPMENT

***Nurse Linda Says...*** *Special equipment is available to make it easier for you to complete digital stimulation if you have decreased finger or hand function and want to become more independent. These include suppository inserters, which have a spring-loaded tip that allows the suppository to be fully inserted and anal stimulators (also called finger extensions), which fit in the palm and loop over the hand to allow greater independence in bowel management. Both are pictured below.*

### The following equipment and supplies are also needed:

- Gloves (non-latex)
- Lubricant, water soluble
- Soap and water
- Washcloths, towels
- Toilet paper and/or wet wipes
- Disposable underpads (if the program is performed while you're in bed)
- Plastic bag for waste
- Raised toilet seat, commode chair or shower chair with pressure dispersing seat and back if done in bathroom



## BEWARE THESE MEDICATIONS

Certain medications can contribute to constipation and/or diarrhea, including narcotic pain relievers (hydrocodone, oxycodone, Percocet), anti-epilepsy drugs (gabapentin and pregabalin), oxybutynin or tolterodine (used to treat urinary problems), certain anti-spasm medications, such as baclofen, tizanidine, or diazepam, some antidepressants, including duloxetine, sertraline, or citalopram, and some antacids.

## WHEN PROBLEMS ARISE

Bowel management in someone with a spinal cord injury is a complex process and challenges will arise. Here's how to handle them.

## CONSTIPATION

Constipation is a common problem with neurogenic bowel. The key is to catch it early before the stool becomes impacted, plugging the rectum and making it much harder to eliminate.

**What to do:** Increase your water and fiber intake. Bulk formers such as psyllium (Metamucil®, Citrucel®) provide additional bulk, making it easier to move stool through the bowel and preventing diarrhea. Stool softeners, such as Colace®, increase the water content of the stool, keeping it softer and making it easier to move; stimulant suppositories, such as bisacodyl, increase the muscle contractions (peristalsis) of the bowel, which moves the stool along. However, oral stimulant laxatives should be used sparingly because the colon can become dependent on them for peristalsis.

## DIARRHEA

Diarrhea is the frequent passage of loose, watery stools at least three times a day, often with no warning. Causes include too many laxatives, spicy and/or greasy food, caffeinated drinks, orange juice, alcohol, infection, certain antibiotics or other drugs. Even normal anxiety about a situation can lead to diarrhea. Diarrhea can also occur if you have severe constipation or impaction. This is called “overflow diarrhea,” in which the watery stool flows around the impacted stool.

**What to do:** First, check for fecal impaction. Then stop bowel medications until the diarrhea stops. Resume your bowel program at the next scheduled time. Also check your food diary: what were you eating when the diarrhea began? Add bananas, rice, and toast to your diet to firm up your stool. Make sure you're drinking plenty of water so you don't become dehydrated.

## MUCOUS ACCIDENTS

This is oozing that occurs, typically after a bowel movement, consisting mostly of digestive products. They typically occur when the bowel program is too harsh.

**What to do:** Recheck your bowel program routine to make sure you are not being too aggressive in your choice of suppository or digital stimulation. You can also cut back on the bulk-forming additives in medication and diet.

## BLOODY STOOL

If the blood is bright red and on the outside of the stool, it might be coming from hemorrhoids or anal fissures, small cuts or cracks around the anal opening. Both can be the result of aggressive digital stimulation or not using enough lubricant, and are more common with age.

Hemorrhoids can also result from excessive laxative use and obesity. Symptoms include burning, itching (which you may not feel), and/or swollen tissue around the anus.

**What to do:** Be as gentle and quick as possible during digital stimulation and make sure the gloved finger is well lubricated.

**Also:**

- Moderate your laxative use. Do not use stimulant laxatives
- Control your weight
- Reduce the amount of fiber in your diet
- Use an over-the-counter cream or pad to reduce inflammation
- Darker blood or blood within the stool might be coming from the stomach or colon. It may be a sign of an infection, ulcer, or cancer, so call your healthcare professional
- Regardless if blood is inside or outside of the stool, make sure your doctor is aware of it

## PAIN

Some people have pain at the rectum or referred pain (pain that is distant from the abdomen or rectal area) from the bowel program.

**What to do:** Use numbing agents such as Nupercainal or Surfacaine to anesthetize the rectum before beginning the bowel program.

## PRESSURE INJURY

You already know that you have a high risk of pressure ulcers and sores. Transferring to and from the toilet can also cause a pressure injury in the skin between the buttocks or on the ischia (your sitting bones) that you may not feel but which can quickly become a pressure injury or a shearing injury, which results from friction on the skin.

**What to do:** Use the right equipment, including a pressure-dispersing toilet seat and backrest at the proper height for you. Also:

- Stay balanced on the commode and don't spread or squeeze your buttocks
- Shift your position on the commode every 15 minutes
- Use corn starch on the seat and transfer board to avoid sticking
- Thoroughly wash and dry the skin around the anus and buttocks
- Check your skin regularly

## ILEUS

Ileus occurs when the intestines stop moving the stool. It can happen at any time due to neurological changes, particularly early after the injury. It may affect the entire bowel or just a section.

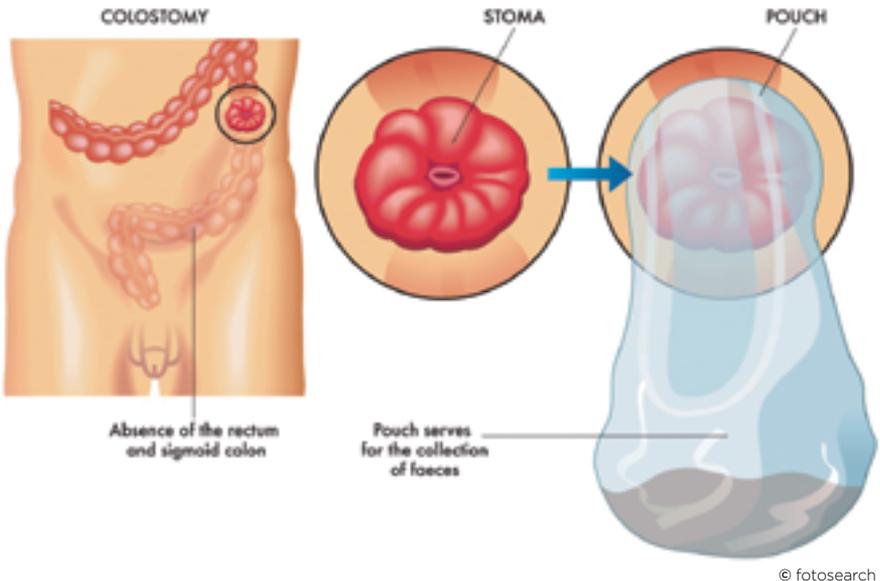
**What to do:** Call your healthcare provider. You will likely need to be hospitalized for procedures and medication to move the stool through the bowel to avoid further complications.

## SHOULD I CONSIDER A COLOSTOMY?

If bowel management continues to be very challenging for you and your caregivers, it may be medically necessary to undergo a colostomy. This is a surgical procedure in which the surgeon creates a permanent opening between the colon and the surface of the abdomen. A bag attaches to the opening to collect stool.

Reasons for a colostomy include pressure injuries, fecal incontinence, or excessively long bowel programs. With a colostomy, you may be able to manage your bowels more independently and in less time than the standard bowel management program.

However, there are significant risks with the surgery and post-surgical management of a colostomy. So, make sure you discuss this very carefully with your healthcare providers and family.



## RESOURCES

If you are looking for more information on bowel management or have a specific question, Reeve Foundation Information Specialists are available weekdays, Monday through Friday, toll-free at 800-539-7309 from 9 am to 5 pm EST.

The Reeve Foundation maintains fact sheets on bowel management and colostomy with an extensive list of resources from trusted sources. Also check out our repository of fact sheets on hundreds of topics ranging from state resources to secondary complications of paralysis.

Below are some additional resources on bowel management for those living with paralysis:

### **Craig Hospital: Bowel Care Resources**

<http://craighospital.org/spinal-cord-injury-resource-library?q=&topics=14823>

### **Model Systems Knowledge Translation Center (MSKTC):**

#### **Bowel Function After Spinal Cord Injury**

[www.msktc.org/sci/factsheets/Bowel\\_Function](http://www.msktc.org/sci/factsheets/Bowel_Function)

### **Northwest Regional Spinal Cord Injury System:**

#### **SCI and Maintaining Healthy Bowels**

[http://rehab.washington.edu/patientcare/patientinfo/articles/sci\\_bowels.asp](http://rehab.washington.edu/patientcare/patientinfo/articles/sci_bowels.asp)

### **Shepherd Center: Bowel Care**

[www.myshepherdconnection.org/sci/bowel-care](http://www.myshepherdconnection.org/sci/bowel-care)

## **COLOSTOMY INFO:**

### **Craig Hospital: Colostomies - A Radical Approach to Bowel Management brochure**

<http://craighospital.org/resources/colostomies-a-radical-approach-to-bowel-management>

### **New Mobility: Colostomy Pros and Cons**

[www.newmobility.com/2014/04/colostomy-pros-cons/](http://www.newmobility.com/2014/04/colostomy-pros-cons/)



**We're here to help.**

Learn more today!

**Christopher & Dana Reeve Foundation**

636 Morris Turnpike, Suite 3A

Short Hills, NJ 07078

(800) 539-7309 toll free

(973) 379-2690 phone

[ChristopherReeve.org](http://ChristopherReeve.org)

This project was supported, in part, by grant number 90PRRC0002, from the U.S. Administration for Community Living, Department of Health and Human Services, Washington, D.C. 20201.

Grantees undertaking projects under government sponsorship are encouraged to express freely their findings and conclusions. Points of view or opinions do not, therefore, necessarily represent official Administration for Community Living policy.