



Craig Hospital

Redefining Possible for People with Spinal Cord and Brain Injuries

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Bowel Program: Lower Motor Neuron Injury

We understand that you are at a time in your life when going to the bathroom is not something you want to think about. After a spinal cord injury, the way your body functions changes and now you are faced with not only thinking about going to the bathroom but sometimes feeling like your whole life revolves around it. This document will introduce you to what makes up a bowel program.

What is a bowel program?

A healthy functioning bowel system is the combination of many factors. In addition to establishing a consistent bowel program, attention to diet, fluid intake, activity, and medications all play a part in maintaining bowel health.

A bowel program establishes a regular time to stimulate the bowels to cause a bowel movement. The primary goal of a bowel program is to promote regular emptying of the bowels for cleansing and health. Establishing a bowel program will help prevent involuntary bowel movements, constipation, and impaction of the bowels.

Lower Motor Neuron (LMN) Injuries

The first step in establishing a bowel program is in understanding your spinal cord injury and how it has affected your body.

- **Lower Motor Neuron (LMN) Injuries** are at T12 and below. The muscles are loose and involuntary bowel movements are very common because the colon has lost its muscle tone. The muscles are flaccid. People with LMN injuries may not respond to usual bowel interventions such as digital stimulation or suppositories because the spinal reflex arc is diminished or absent. The goal of bowel care for a person with LMN function is to keep the stool well formed, the rectal vault clear in order to prevent involuntary bowel movements (when stool comes out accidentally). People with this type of injury sometimes have to do a bowel program once or twice a day to keep the lower colon free of stool. Involuntary bowel movements may lead to potential skin problems and quality of life issues that may include excess time cleaning up and social isolation. Doing a rectal check after each meal is beneficial to help prevent these issues.

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With lower motor neuron injuries, the goal is to have firm, but not hard, formed stool. Suppositories are not generally used. Effective techniques can include a gentle valsalva maneuver, weight shifts, and drinking a hot drink prior to the bowel program to maximize the gastrocolic response. The gastrocolic response or reflex, is triggered by eating and produces a squeezing of the small intestine and colon, thus moving the stool forward. Sometimes medications can be an aid in the evacuation of the stool.

To do a valsalva maneuver, block the air in your throat while at the same time you try to push air out while you breathe in, thus increasing the pressure on your abdomen)

Getting the right consistency...

As we already mentioned, the goal of the bowel program is to promote regular emptying of the bowels. Many factors play a role in developing the bowel program – all of which affect the consistency of your stool. These factors include:

- Diet and fluid Intake
- Activity
- Timing of the program
- Positioning and other aids
- Medications

Diet and Fluid Intake

Eating a variety of foods throughout the day will give your body the nutrients it needs. Experience will also teach you what kinds of foods are likely to upset your bowel program. A well-balanced diet and the proper fluids will help to make your bowel program a success.

Fiber

Fiber is extremely important in regulating the bowels. The body does not readily digest fiber so it stays in the colon. Think of fiber as a sponge because it loves to soak up water. If you have enough water in your diet, the fiber becomes soft and bulky and bowel movements are easy to pass. If you don't have enough water in your diet the fiber gets really hard and compact and can cause constipation or even an impaction.

After spinal cord injury, Craig Hospital typically recommends 20-25 grams of fiber in your diet every day. Some things that you can do to increase your fiber intake include starting your day with a bowl of high fiber cereal. You will need to start reading the sides of boxes as not all cereals have the same amount of fiber. Some cereals will come with 10-12 grams of fiber in each serving. This is great because in one serving you are getting nearly half of your daily fiber goals.

You want to choose foods that are healthy and tasty. Choosing whole wheat bread, pasta, or brown rice will give you more fiber than their white counterparts will. The Food Guide Pyramid recommends five servings of fruit and five servings of vegetables a day. One serving is equivalent to ½ cup so, depending on the size, one piece of fruit can count as two or three servings. Shoot for about 2 ½ cups of vegetables a day and 2 ½ cups of fruits a day because fruits and vegetables tend to be high in fiber.

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Other high fiber foods you can eat are beans, nuts and seeds, such as almonds, sesame, peanuts, pecans, walnuts, popcorn, and baked potatoes with skin.

Water

Water is often over-looked as a nutrient. Our bodies are more than 70% water. You can become dehydrated very easily if you are not drinking enough. Dehydration can also increase risk of bladder stones, urinary tract infections, and constipation.

If you increase your fiber, you also need to make sure you are getting enough water in your diet. If you don't have fluid restrictions we recommend drinking between two to three liters of water every day. This is equivalent to about 66 to 100 oz. of water or ½ to ¾ of a gallon every day. One way to monitor how much you drink is to use a water bottle and know how much fluid it holds.

Beverages with caffeine do not help meet your water intake needs; in fact, they cause you to lose as much fluid as you are taking in. Watch the color of your urine to make sure that you are drinking enough. Pale yellow colored urine is ideal.

Fluid Restrictions

Sometimes people get electrolyte imbalances if they drink too much water. If you have a medical condition that your doctor has told you to limit how much water you drink – you need to talk to your doctor about any bowel problems and develop a plan with that doctor.

Thirst is not a good sign of dehydration. Isn't that strange? Many people never feel 'thirsty' when they are low on water. So, keep something to drink with you at all times, especially when it is hot outside.

Activity

All physical activity stimulates bowel function, whether competitive sports or the activities of daily living such as transfers. Just getting up and out of bed is an important activity for overall health and well-being. Participating in sports and fitness is one way of increasing physical activity but even getting up and going to school, work, or various leisure time activities is helpful. Whatever activity you choose, do it. Activity helps the mind as well as the body. You will feel better overall and keep those bowels moving by being active.

Sometimes health issues will not allow you to be as active as you once were. For example, if you develop a skin sore and need to be on bed rest, this decrease in activity will slow down the motility of your bowels. This can lead to constipation and other bowel problems. If your activity level changes for any reason, expect that the bowel program will be affected, too. You may need to make adjustments in other areas to maintain the right bowel consistency for your injury level.

Medications

The medications you are taking may have side effects that can influence bowel elimination. For example, pain medications can cause constipation while antibiotics can cause diarrhea. Ask your doctor or pharmacist whenever you start a new medication about how it may affect your bowel function.

Sometimes you may be using medications to help the function of your bowels. As with all medications, know the purpose, name, dose, frequency and any side effects of the medication. Being very consistent with the medications you take is very important. This will help you understand the effect they will have on your bowel program.

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Timing of the Program

Your bowel program must be done at regular times in order for it to be successful. Therefore, it is important to use the same method at the same time each day. Some people find the time after the morning or evening meal to be the most convenient and natural time for a bowel movement. This allows you to take advantage of the normal reflex function of the bowel that increases after eating. The bowel program should last about one hour at most.

It will take time to establish a regular bowel program and get your system set up on a regular schedule. It will be important to maintain a regular time for the bowel program to happen because your body will eventually get used to elimination at that time. Try to keep your bowel program time within two hours of your scheduled time. If you skip it or are very late, you will run the risk of experiencing an involuntary bowel movement.

Bowel Program Position

Sitting up during your bowel program is the best position so gravity can help in the elimination process. If you must be in bed for your bowel program due to illness, skin problems or other reasons, then lie on your left side. The large intestine empties to the left side of your stomach so if you must lie down to do the bowel program, laying on your left side works best.

Final Thoughts...

Many factors determine healthy bowel management. Going to the bathroom is necessary for cleansing and health maintenance. Regular emptying of the bowels is the primary goal of a bowel program. Being consistent with your diet, fluids, activity, medications, timing, and positioning, and will help you achieve the right consistency for your injury and bowel program.

The more consistent you are with every aspect of the bowel program the more consistent your results will be. Any change, no matter how small, can have a big impact on your bowel results. Decide how you will do the program and be consistent!