How the Body Works

The food you eat and drink provides your body with many nutrients. These nutrients give you energy and help you stay healthy. As food moves through your body it breaks down so the nutrients can enter your blood stream. This process is called digestion. After the food is digested, the left-over waste products move into the large intestine. Here water is removed, leaving stool or fecal matter. The stool moves into the last part of the large intestine, called the colon or bowel.

As the bowel fills with stool it stretches. This triggers messages to the body. One message starts muscles to move the stool down through the bowel. Another message lets you know it is time to go to the bathroom and controls the muscle at the opening of the rectum (anus). This muscle allows you to control when the waste (stool) leaves the body. This is often called a bowel movement or BM.

After a spinal cord injury, the message sent by the nerves located in your bowel are not able to reach your brain like before your injury. This means you will not get the message that tells you the bowel is full and it is time to go to the bathroom. Another change is you may not be able to move the muscle at the opening from the rectum (anus) that controls when you have a bowel movement.

How will you have a bowel movement after SCI? 

You will need to train your bowels to have a bowel movement at the time you want. Your bowel program outlines the steps you need to take in order to have a BM. You and your doctor will decide which bowel program is best for you, based on the kind of spinal cord injury that you have.

How does your level of SCI affect your bowel program? 

If you have an SCI above the T12 level, your program will differ from someone who has an injury below T12.

An injury above T12 is usually called an upper motor neuron injury. UMN are nerves located within the spinal cord. With this type of injury you do not receive the message telling you the bowel is full. The muscle that controls the opening and closing of the anus stays tight. When the bowel gets full it will empty by reflex (or automatically). Your doctor and nurse call this problem an upper motor neuron or reflex bowel.
An injury below T12 is usually called a lower motor neuron (LMN) injury. The LMN are nerves that branch out from the spinal cord and go to other body parts and organs. With a LMN injury the messages do not get to the spinal cord. That means your reflexes do not work normally and the anal muscles stay relaxed. Your nurse and doctor call this lower motor neuron or flaccid bowel.

What are the different types of bowel programs?

Individuals with a spinal cord injury above T-12, or with an upper motor neuron (UMN) injury, follow a bowel program that usually includes taking daily stool softeners or using a laxative along with digital stimulation.

Stool softeners are medicines like (pericolace or senokot). You want the stool to remain soft so it is easier to empty the bowel.

A suppository is medicine shaped like a bullet that you put in your rectum. The ingredients in the suppository help trigger the muscles and nerves in the bowel so you have a BM. It helps you have a bowel movement at the right time and avoid accidents. At first, it is likely that you will use Dulcolax suppositories. Later you may want to try glycerine suppositories. They are gentler and cheaper. Dulcolax also is available in pill form that can be taken by mouth.

You will learn, by trial and error, what medicines you need to make your bowel program work for you. Some people do not need to use both suppositories and stool softeners. Your body will let you know what you need.

The bowel program for an individual with an injury below T-12 is manual removal (disimpaction) of the stool. At first you will do this program every other day. Later, you may need to do this more frequently to avoid unplanned bowel movements or accidents. Your bowel program may need adjusting, depending on what and how much you eat. You may need to do your bowel program both after breakfast and dinner to avoid accidents (unplanned BM's).

What you need to do to help make your bowel program work for YOU?

For best results with your bowel program try to:

1. Do your bowel program at the same time every day. You want to teach your bowels when to have a BM. You can train your bowels by following a regular schedule.

2. Transfer to a toilet or bedside commode. It helps to sit up during your bowel program. Remember, gravity helps move the stool down into the rectum.

   Do not use a bed pan. A bedpan may damage your skin.

   If you can not sit up on a toilet or commode, lay on your left side. The bowel ends on the left side of your body. This makes it easier to complete the BM.

3. Do your bowel program about 30 minutes after a meal or a high fiber snack. If you are not able to do your bowel program right after your meal, do it as close to your regular time as possible. Eating some high fiber food (such as fruits, popcorn, cereal, bran muffins) and drinking a warm liquid (such as hot tea, warm prune juice, hot lemonade, hot apple cider) before using a suppository, will help you have a BM. The new food going into your digestive system starts the intestines to move the stool out of your body.

4. Take time to complete your program in private. If you share a bathroom, find a time when you can relax and not be rushed.

5. Keep the stool well formed. If your stool is either too hard or too soft, it will be difficult to empty your bowel. You may need to adjust your stool softeners or diet. Some medicines, like antibiotics, may cause you to have softer or loose stools.

6. There are assistive devices available that can help individuals with limited hand function do their own bowel program. Ask your nurse about a suppository inserter, a finger extension, or a digital stimulator if you have problems doing your own bowel program.
Steps to follow in your bowel program

**REMEMBER:** The lining of the rectum is delicate. Be gentle when placing the suppository, removing stool, or doing digital stimulation during your bowel program.

**How to do digital stimulation.**
1. Wash your hands.
2. Put on exam gloves.
3. Insert a lubricated gloved finger into the rectum (Coat the gloved finger with a lubricant such as, K-Y jelly).
4. Move the finger gently in a circular motion for several minutes.
5. If you have little or no results after 10-15 minutes, try again. If that fails, you may use a suppository.

**How to give yourself a suppository**
1. Wash your hands.
2. Put on exam gloves.
3. Insert lubricated gloved finger into the rectum. (Coat the gloved finger with K-Y jelly to lubricate.)
4. Remove any stool that is in the rectum. (If you put the suppository into stool it will not work.)
5. Take off the wrapper and coat the suppository with a lubricant (KY jelly).
6. Insert suppository into the rectum as high as you can and place it against the wall of the intestine (bowel).
7. If after waiting 30 - 45 minutes you have had little or no results, you may need to do digital stimulation. Do this until the rectum is empty.

*Note* If you have a bowel accident during the day, still use the suppository after your meal in the evening. This will help keep your body on schedule for regular bowel movements.

**How to do manual disimpaction.** (remove by hand)
1. Wash your hands.
2. Put on exam gloves.
3. Insert lubricated gloved finger into the rectum.
4. Remove stool that is in the rectum with your finger.
5. Continue to remove the stool until you cannot feel or reach any stool in the bowel.
6. Wait a few minutes and check your rectum again to make sure you emptied your rectum of stool.

**How to handle problems with your bowel program**

**Constipation**

**Signs:**
* Hard, stone-like stools
* Irregular bowel movements
* No bowel movement in several days
* Swollen or hard stomach
* Lack of appetite

**Causes:**
- Not drinking enough fluids
- Not following a scheduled bowel program
- Not eating a diet with plenty of fiber
- Not getting enough activity
- Not taking stool softener
- Some medications: pain medications, iron, and certain anti-acids

**Solutions:**
* Eat a balanced diet that includes plenty of foods high in fiber.
* Drink at least 8-9 (8 oz) glasses of water/liquid a day.
* Stay on a scheduled bowel program.
* Keep active.
* Use a stool softener (Surfak, Colace, Castor Oil).
* Add a dose of fiber for bulk (Metamucil Fibercon, Senokot, or Citrucel).

**Impaction**

**Signs:** Same as for constipation

**Causes:** Same as for constipation

**Solutions:** Gently remove stool from rectum with a lubricated, gloved finger. If this does not help, use an enema.

If you become more uncomfortable, call your doctor.

**Diarrhea**

**Signs:** Many, loose and watery stools

**Causes:**
- Eating foods that are spicy, high in fat, or contain caffeine (coffee, tea, chocolate, or cola drinks)
- Over use of stool softeners/laxatives
- Medications that irritate the stomach or intestines
- Antibiotics may cause you to have soft or loose stools
- Medical problems, like the flu
- Emotional problems, stress
- Poor diet
Solutions:
* Check your diet for foods that disagree with you.
* Stop taking any laxatives until the diarrhea stops.
* Stop using stool softeners. After diarrhea is over, adjust your dose until your stool is of proper hardness.
* Drink plenty of liquids to prevent dehydration.

*** If the diarrhea lasts longer than 24 hours or there is blood in the stool, call your doctor.

Autonomic Dysreflexia

Autonomic Dysreflexia is a response to a painful stimulant. This pain can be caused by hemorrhoids, rough digital stimulation, or a full bowel.

If you have an AD attack during your bowel program, try the following.
* Keep on a regularly scheduled bowel program with adequate emptying. You may have to increase the frequency of your bowel program.
* Get in a comfortable position during bowel program.
* Use anesthetic ointment on the anal area 5-10 minutes before digital stimulation.

How to Prevent Bowel Accidents

The best way to prevent bowel accidents from happening is to follow a schedule for your program. You want to teach your bowels when to have a BM. You can train your bowels by following a regular schedule.

If you are on a regular schedule and know you are emptying well, but still have accidents, keep track of what you eat and drink. Foods are often the cause of the problem.

Antibiotics may cause you to have softer or loose stools. Taking less of your stool softener medication may help.

How to have a successful bowel program

To avoid problems with your bowel program, remember what you can do to help your S-E-L-F!**

Schedule:

Plan a time every day or every other day to do your bowel program. It works best if it is after eating a meal. Keep the same schedule every day. Plan ahead for special occasions that may interrupt your normal schedule to avoid problems.

Exercise:

The more active you are, the easier it is for the food you eat to travel through your digestive system. Get out of bed and exercise some every day.

Liquids:

An important part of your diet is liquids. Drink at least 8 - 9 (8oz) glasses of liquid each day. This will keep your BM from getting too hard and prevent constipation or impaction.

Food:

Eat a variety of foods every day, especially foods with fiber. Fiber (roughage) is found in fresh fruits and vegetables and whole grain breads and cereals. Roughage helps control your bowels and prevents constipation. Try to limit spicy foods, greasy foods, and “junk” foods. Eat foods like fruits and vegetables, such as apples, beans, carrots, okra, potatoes, greens, and green salads.

** This idea was adapted from the (SILS [Spinal Injury Learning Series] Norris, Noble, and Strickland: Learning Systems, Jackson, Mississippi, 1978.)